

UNIT OPERATING AGREEMENT

DOUBLE L QUEEN UNIT

COUNTY OF CHAVES

STATE OF NEW MEXICO

UNIT OPERATING AGREEMENT  
DOUBLE L QUEEN UNIT  
CHAVES COUNTY, NEW MEXICO

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UNIT OPERATING AGREEMENT  
DOUBLE L QUEEN UNIT  
CHAVES COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the 1st day of January, 1974 by and between the parties who have signed the original of this instrument, a counterpart thereof, or other instrument agreeing to become a party hereto.

W I T N E S S E T H :

WHEREAS, the parties hereto as Working Interest Owners have executed, as of the date hereof, an Agreement entitled "Unit Agreement, Double L Queen Unit, Chaves County, New Mexico", herein referred to as "Unit Agreement", which, among other things, provides for a separate agreement to be entered into by Working Interest Owners to provide for Unit Operations as therein defined.

NOW, THEREFORE, in consideration of the mutual agreements herein set forth, it is agreed as follows:

ARTICLE L

CONFIRMATION OF UNIT AGREEMENT

1.1 Confirmation of Unit Agreement. The Unit Agreement is hereby confirmed and by reference made a part of this Agreement. The definitions in the Unit Agreement are adopted for all purposes of this Agreement. If there is any conflict between the Unit Agreement and this Agreement, the Unit Agreement shall govern.

ARTICLE 2

EXHIBITS

2.1 Exhibits.

2.1.1 Exhibits A, B, C, and D of the Unit Agreement are incorporated herein by reference.

2.1.2 Exhibit E, attached hereto, is a schedule showing the Unit Participation of each Working Interest Owner. Exhibit E, or a revision thereof, shall not be conclusive as to the information therein, except it may be used as showing the Unit Participations shown to be in error or revised as herein authorized.

2.1.3 Exhibit F, attached hereto, is the Accounting Procedure applicable to Unit Operations. If there is any conflict between this Agreement and Exhibit F, this Agreement shall govern.

2.1.4 Exhibit G, attached hereto, contains insurance provisions applicable to Unit Operations.

2.2 Revision of Exhibits. Whenever Exhibits A, B or C are revised, Exhibit E shall be revised accordingly and be effective as of the same date. Unit Operator shall also revise Exhibit E from time to time as required to conform to changes in ownership of which Unit Operator has been notified as provided in the Unit Agreement.

2.3 Reference to Exhibits. When reference is made herein to an exhibit, it is to the exhibit as originally attached or, if revised, to the last revision.

### ARTICLE 3

#### SUPERVISION OF OPERATIONS BY WORKING INTEREST OWNERS

3.1 Overall Supervision. Working Interest Owners shall exercise overall supervision and control of all matters pertaining to Unit Operations pursuant to this Agreement and the Unit Agreement. In the exercise of such authority, each Working Interest Owner shall act solely in its own behalf in the capacity of an individual owner and not on behalf of the owners as an entirety.

3.2 Specific Authorities and Duties. The matters with respect to which Working Interest Owners shall decide and take action shall include, but not be limited to, the following:

3.2.1 Method of Operation. The method of operation, including the type or types of pressure maintenance, secondary recovery, or other recovery program to be employed.

3.2.2 Drilling of Wells. The drilling of any well whether for production of Unitized Substances, for use as an injection well, or for other purposes.

3.2.3 Well Recompletions and Change of Status. The recompletion, abandonment, or permanent change of status of any well, or the use of any well for injection or other purposes.

3.2.4 Expenditures. The making of any single expenditure in excess of Seven Thousand Five Hundred Dollars (\$7,500.00); however, approval by Working Interest Owners of the drilling, reworking, deepening, or plugging back of any well shall include approval of all necessary expenditures required therefor, and for completing, testing, and equipping the well, including necessary flow lines, separators, and lease tankage.

3.2.5 Disposition of Unit Equipment. The selling or otherwise disposing of any major item of surplus Unit Equipment, if the current price of new equipment similar thereto is Five Thousand Dollars (\$5,000.00) or more.

3.2.6 Appearance Before a Court or Regulatory Agency. The designating of a representative to appear before any court or regulatory agency in matters pertaining to Unit Operations; however, such designation shall not prevent any Working Interest Owner from appearing in person or from designating another representative in its own behalf.

3.2.7 Audits. The auditing of the accounts of Unit Operator pertaining to Unit Operations hereunder; however, the audits shall

(a) not be conducted more than once each year except upon the resignation or removal of Unit Operator, and

(b) be made upon the approval of the owner or owners of a majority of Working Interest other than that of Unit Operator, at the expense of all Working Interest Owners other than Unit Operator, or

(c) be made at the expense of those Working Interest Owners requesting such audit, if owners of less than a majority of Working Interest, other than that of Unit Operator, request such an audit, and

(d) be made upon not less than thirty (30) days' written notice to Unit Operator.

3.2.8 Inventories. The taking of periodic inventories under the terms of Exhibit F.

3.2.9 Technical Services. The authorizing of charges to the Joint Account for services by consultants or Unit Operator's technical personnel not covered by the overhead charges provided by Exhibit F.

3.2.10 Assignments to Committees. The appointment of committees to study any problems in connection with Unit Operations.

3.2.11 The removal of Unit Operator and the selection of a successor.

3.2.12 The enlargement of the Unit Area.

3.2.13 The adjustment and readjustment of investments.

3.2.14 The termination of the Unit Agreement.

3.2.15 Border Line Agreements.

## ARTICLE 4

### MANNER OF EXERCISING SUPERVISION

4.1 Designation of Representatives. Each Working Interest Owner shall inform Unit Operator in writing of the names and addresses of the representative and alternate who are authorized to represent and bind such Working Interest Owner with respect to Unit Operations. The representative or alternate may be changed from time to time by written notice to Unit Operator.

4.2 Meetings. All meetings of Working Interest Owners shall be called by Unit Operator upon its own motion or at the request of two (2) or more Working Interest Owners having a total Unit Participation then in effect of not less than ten percent (10%). No meeting shall be called on less than fourteen (14) days' advance written notice, with agenda for the meeting attached. Working Interest Owners who attend the meeting may amend items included in the agenda and may act upon an amended item or other items presented at the meeting. The representative of Unit Operator shall be chairman of each meeting.

4.3 Voting Procedure. Working Interest Owners shall decide all matters coming before them as follows:

4.3.1 Voting Interest. Each Working Interest Owner shall have a voting interest equal to its Unit Participation in effect at the time of the vote.

4.3.2 Vote Required. Unless otherwise provided herein or in the Unit Agreement, Working Interest Owners shall determine all matters by the affirmative vote of four or more Working Interest Owners having a combined voting interest of at least sixty-five percent (65%); however, should any one Working Interest Owner have more than thirty-five percent (35%) voting interest, its negative vote or failure to vote shall not defeat a motion, and such motion shall pass if approved by Working Interest Owners having a majority voting interest, unless three or more Working Interest Owners having a combined voting interest of at least ten percent (10%) likewise vote against the motion or fail to vote.

4.3.3 Vote at Meeting by Nonattending Working Interest Owner. Any Working Interest Owner who is not represented at a meeting may vote on any agenda item by letter or telegram addressed to the representative of Unit Operator if its vote is received prior to the vote at the meeting, provided the agenda items are not amended.

4.3.4 Poll Votes. Working Interest Owners may vote on and decide, by letter or telegram, any matter submitted in writing to Working Interest Owners. If a meeting is not requested, as provided in Section 4.2, within seven (7) days after a written proposal



is sent to Working Interest Owners, the vote taken by letter or telegram shall become final. Unit Operator will give prompt notice of the results of such voting to all Working Interest Owners.

## ARTICLE 5

### INDIVIDUAL RIGHTS OF WORKING INTEREST OWNERS

5.1 Reservation of Rights. Working Interest Owners severally reserve to themselves all their rights, except as otherwise provided in this Agreement and the Unit Agreement.

5.2 Specific Rights. Each Working Interest Owner shall have among others, the following specific rights:

5.2.1 Access to Unit Area. Access to the Unit Area at all reasonable times to inspect Unit Operations, all wells, and the records and data pertaining thereto.

5.2.2 Reports. The right to receive from Unit Operator, upon written request, copies of all reports to any governmental agency, reports of crude oil runs and stocks, inventory reports, and all other information pertaining to Unit Operations. The cost of gathering and furnishing information not ordinarily furnished by Unit Operator to all Working Interest Owners shall be charged to the Working Interest Owner that requests the information.

## ARTICLE 6

### UNIT OPERATOR

6.1 Unit Operator. Burk Royalty Co. is hereby designated as the initial Unit Operator.

6.2 Resignation or Removal and Selection of Successor. The resignation or removal of Unit Operator and the selection of a successor shall be governed by the provisions of the Unit Agreement.

## ARTICLE 7

### AUTHORITIES AND DUTIES OF UNIT OPERATOR

7.1 Exclusive Right to Operate Unit. Subject to the provisions of this Agreement and to instructions from Working Interest Owners, Unit Operator shall have the exclusive right and be obligated to conduct Unit Operations.

7.2 Workmanlike Conduct. Unit Operator shall conduct Unit Operations in a good and workmanlike manner as would a prudent operator under

the same or similar circumstances. Unit Operator shall freely consult with Working Interest Owners and keep them informed of all matters which Unit Operator, in the exercise of its best judgment, considers important. Unit Operator shall not be liable to Working Interest Owners for damages, unless such damages result from its gross negligence or willful misconduct.

7.3 Liens and Encumbrances. Unit Operator shall endeavor to keep the lands and leases in the Unit Area and Unit Equipment free from all liens and encumbrances occasioned by Unit Operations, except the lien and security interest of Unit Operator and Working Interest Owners granted hereunder.

7.4 Employees. The number of employees used by Unit Operator in conducting Unit Operations, their selection, hours of labor, and compensation shall be determined by Unit Operator. Such employees shall be the employees of Unit Operator.

7.5 Records. Unit Operator shall keep correct books, accounts, and records of Unit Operations.

7.6 Reports to Working Interest Owners. Unit Operator shall furnish Working Interest Owners periodic reports of Unit Operations.

7.7 Reports to Governmental Authorities. Unit Operator shall make all reports to governmental authorities that it has the duty to make as Unit Operator.

7.8 Engineering and Geological Information. Unit Operator shall furnish to a Working Interest Owner, upon written request, a copy of all logs and other engineering and geological data pertaining to wells drilled for Unit Operations.

7.9 Expenditures. Unit Operator is authorized to make single expenditures not in excess of Seven Thousand Five Hundred Dollars (\$7,500.00) without prior approval of Working Interest Owners. If an emergency occurs, Unit Operator may immediately make or incur such expenditures as in its opinion are required to deal with the emergency. Unit Operator shall report to Working Interest Owners, as promptly as possible, the nature of the emergency and the action taken.

7.10 Wells Drilled by Unit Operator. All wells drilled by Unit Operator shall be at the usual rates prevailing in the area. Unit Operator may employ its own tools and equipment, but the charge therefor shall not exceed the usual rates prevailing in the area, and the work shall be performed by Unit Operator under the same terms and conditions as are usual in the area in contracts of independent contractors doing work of a similar nature.

## ARTICLE 8

### TAXES

8.1 Ad Valorem Taxes. Beginning with the first calendar year after the Effective Date hereof, Unit Operator shall make and file all necessary ad valorem tax renditions and returns with the proper taxing authorities with respect to all property of each Working Interest Owner used or held by Unit Operator for Unit Operations. Unit Operator shall settle assessments arising therefrom. All such ad valorem taxes shall be paid by Unit Operator and charged to the joint account; however, if the interest of a Working Interest Owner is subject to a separately assessed overriding royalty interests production payment, or other interest in excess of a one-eighth (1/8) royalty, such Working Interest Owner shall notify Unit Operator of such interest prior to the rendition date and shall be given credit for the reduction in taxes paid resulting therefrom.

8.2 Other Taxes. Each Working Interest Owner shall pay or cause to be paid all production, severance, gathering, and other taxes imposed upon or with respect to the production or handling of its share of Unitized Substances.

## ARTICLE 9

### INSURANCE

9.1 Insurance. Unit Operator, with respect to Unit Operations, shall:

- (a) comply with the Workmen's Compensation Laws of the State,
- (b) carry Employer's Liability and other insurance required by the laws of the State, and
- (c) provide other insurance as set forth in Exhibit G.

## ARTICLE 10

### ADJUSTMENT OF INVESTMENTS

10.1 Personal Property Taken Over. Upon Effective Date, Working Interest Owners shall deliver to Unit Operator the following:

10.1.1 Wells. All wells completed in the Unitized Formation.

10.1.2 Well and Lease Equipment. The casing and tubing in each such well, the wellhead connections thereon, and all other lease and operating equipment that is used in the operation of

such wells which Working Interest Owners determine is necessary or desirable for conducting Unit Operations.

10.1.3 Records. A copy of all production and well records for such wells.

10.2 Inventory and Evaluation of Personal Property. Working Interest Owners shall at Unit Expense inventory and evaluate, as determined by Working Interest Owners, the personal property taken over. Such inventory shall include and be limited to those items of equipment considered controllable under Exhibit "F" except, upon determination of Working Interest Owners, items considered noncontrollable may be included in the inventory in order to insure a more equitable adjustment of investment. Casing shall be included in the inventory for record purposes, but shall be excluded from evaluation and investment adjustment.

10.3 Investment Adjustment. Upon approval by Working Interest Owners of the inventory and evaluation, investments shall be adjusted as follows:

10.3.1 Initial Adjustment of Investments. Each Working Interest Owner shall be credited with the value, as determined in accordance with Section 10.2 above, of its interest in all personal property taken over by Unit Operator under Section 10.1.2 and charged with an amount equal to that obtained by multiplying the total value of all such personal property taken over by Unit Operator under Section 10.1.2 by such Working Interest Owner's Unit Participation, as shown in Phase I of Exhibit "E". If the charge against any Working Interest Owner is greater than the amount credited to such Working Interest Owner, the resulting net charge shall be paid and in all other respects be treated as any other item of Unit Expense chargeable against such Working Interest Owner. If the credit to any Working Interest Owner is greater than the amount charged against such Working Interest Owner, the resulting net credit shall be paid to such Working Interest Owner by Unit Operator out of funds received by it in settlement of the net charges described above.

10.3.2 Readjustments of Investments. Effective as of the end of Phase I, the capital investment account of the Working Interest Owners hereunder shall be readjusted on the basis of their respective Phase II Unit Participations, as shown on Exhibit "E". For the purposes of such readjustment, each Working Interest Owner shall be (1) credited for its interest in the adjusted value of all personal property and facilities taken over by the Unit Operator pursuant to this Agreement during Phase I Unit Operations, and (2) charged with an amount equal to that obtained by multiplying the same adjusted value of personal property and facilities by such Working Interest Owner's Phase II Unit Participation.

The adjusted value of all personal property and facilities for the purposes of this Section 10.3.2 shall be determined as follows:

- (a) Value personal property and facilities initially taken over by Unit Operator on the same basis as that used when such personal property and facilities were taken over.
- (b) All other investment items including non-controllable materials and construction cost acquired during Phase I Unit Operations, including well casing subsequently purchased and installed shall be charged at the time of purchase to the joint account by use of Phase II Unit Participation Percentages. No adjustment will, therefore, be necessary for these items.

Each Working Interest Owner shall be charged or credited with the net cash amount necessary to effect such readjustment of the capital investment account, and such charges and credits shall be settled in the same manner as the charges and credits referred to in Section 10.3.1.

10.4 General Facilities. The acquisition of warehouses, warehouse stocks, lease houses, camps, facility systems, and office buildings necessary for Unit Operations shall be by negotiation by the owners thereof and Unit Operator, subject to the approval of Working Interest Owners.

10.5 Ownership of Personal Property and Facilities. Each Working Interest Owner, individually, shall by virtue hereof own an undivided interest, equal to its Unit Participation, in all personal property and facilities taken over or otherwise acquired by Unit Operator pursuant to this Agreement.

## ARTICLE 11

### UNIT EXPENSE

11.1 Basis of Charge to Working Interest Owners. Unit Operator initially shall pay all Unit Expense. Each Working Interest Owner shall reimburse Unit Operator for its share of unit operating expense in proportion to the respective Unit Participations of the parties hereto in effect at the time such expense was incurred. Investment items purchased during Phase I will, however, be charged to each Working Interest owner using Phase II Participation Percentage. All charges, credits, and accounting for Unit Expense shall be in accordance with Exhibit "F".

11.2 Budgets. Before or as soon as practical after the Effective Date, Unit Operator shall prepare a budget of estimated Unit Expense for the remainder of the calendar year, and, on or before the first day

of each August thereafter, shall prepare a budget for the ensuing calendar year. A budget shall set forth the estimated Unit Expense by quarterly periods. Budgets shall be estimates only, and shall be adjusted or corrected by Working Interest Owners and Unit Operator whenever an adjustment or correction is proper. A copy of each budget and adjusted budget shall be furnished promptly to each Working Interest Owner.

11.3 Advance Billings. Unit Operator shall have the right, without prejudice to other rights or remedies, to require Working Interest Owners to advance their respective shares of estimated Unit Expense by submitting to Working Interest Owners, on or before the 15th day of any month, an itemized estimate thereof for the succeeding month, with a request for payment in advance. Within fifteen (15) days after receipt of the estimate, each Working Interest Owner shall pay to Unit Operator its share of such estimate. Adjustments between estimated and actual Unit Expense shall be made by Unit Operator at the close of each calendar month, and the accounts of Working Interest Owners shall be adjusted accordingly.

11.4 Commingling of Funds. Funds received by Unit Operator under this Agreement need not be segregated or maintained by it as a separate fund, but may be commingled with its own funds.

11.5 Lien and Security Interest of Unit Operator and Working Interest Owners. Each Working Interest Owner grants to Unit Operator a lien upon its Oil and Gas Rights in each Tract, and a security interest in its share of Unitized Substances when extracted and its interest in all Unit Equipment, to secure payment of its share of Unit Expense, together with interest thereon at the rate of ten percent (10%) per annum. To the extent that Unit Operator has a security interest under the Uniform Commercial Code of the State, Unit Operator shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by Unit Operator for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any Working Interest Owner in the payment of its share of Unit Expense, Unit Operator shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such Working Interest Owner's share of Unitized Substances until the amount owed by such Working Interest Owner, plus interest has been paid. Each purchaser shall be entitled to rely upon Unit Operator's written statement concerning the amount of any default. Unit Operator grants a like lien and security interest to the Working Interest Owners.

11.6 Unpaid Unit Expense. If any Working Interest Owner fails to pay its share of Unit Expense within sixty (60) days after rendition of a statement therefor by Unit Operator, each Working Interest Owner agrees, upon request by Unit Operator, to pay its proportionate part of the unpaid share of Unit Expense of the defaulting Working Interest Owner.

Working Interest Owners that pay the share of Unit Expense of a defaulting Working Interest Owner shall be reimbursed by Unit Operator for the amount so paid, plus any interest collected thereon, upon receipt by Unit Operator of any past due amount collected from the defaulting Working Interest Owner. Any Working Interest Owner so paying a defaulting Working Interest Owner's share of Unit Expense shall, to obtain reimbursement thereof, be subrogated to the lien and other rights herein granted Unit Operator.

11.7 Uncommitted Royalty. Should an owner of a Royalty Interest in any Tract fail to become a party to the Unit Agreement, and, as a result thereof, the actual Royalty Interest payments with respect to such Tract are more or less than the Royalty Interest payments computed on the basis of the Unitized Substances that are allocated to such Tract under the Unit Agreement, the difference shall be borne by or inure to the benefit of Working Interest Owners, in proportion to their respective Unit Participations at the time the Unitized Substances were produced; however, the difference to be borne by or inure to the benefit of Working Interest Owners shall not exceed an amount computed on the basis of one-eighth (1/8) of the difference between the Unitized Substances allocated to the Tract and the Unitized Substances produced from the Tract. Such adjustments shall be made by charges and credits to the joint account.

11.8 Rentals. The Working Interest Owners in each Tract shall pay all rentals, minimum royalty, advance rentals or delay rentals due under the lease thereon and shall concurrently submit to the Unit Operator evidence of payment.

11.9 Carved-out Interest. If any Working Interest Owner shall, after executing this agreement, create an overriding royalty, production payment, net proceeds interest, carried interest or any other interest out of its Working Interest, such carved-out interest shall be subject to the terms and provisions of this agreement, specifically including, but without limitation, Section 11.5 hereof entitled "Lien and Security Interest of Unit Operators and Working Interest Owners." If the Working Interest Owner creating such carved-out interest (a) fails to pay any Unit Expense chargeable to such Working Interest Owner under this agreement, and the production of Unitized Substances accruing to the credit of such Working Interest Owner is insufficient for that purpose, or (b) withdraws from this agreement under the terms and provisions of Article 17 hereof, the carved-out interest shall be chargeable with a pro rata portion of all Unit Expense incurred hereunder, the same as though such carved-out interest were a Working Interest, and Unit Operator shall have the right to enforce against such carved-out interest the lien and all other rights granted in Section 11.5 for the purpose of collecting the Unit Expense chargeable to the carved-out interest.

## ARTICLE 12

### NON-UNITIZED FORMATIONS

12.1 Right to Operate. Any Working Interest Owner that now has or hereafter acquires the right to drill for and produce oil, gas, or

owner of the Unitized Formation underlying the Unit Area other than the Unitized Formation, shall have the right to do so notwithstanding this Agreement or the Unit Agreement. In exercising the right, however, the Working Interest Owner shall exercise care to prevent unreasonable interference with Unit Operations. No Working Interest Owner shall produce Unitized Substances through any well drilled or operated by it. If any Working Interest Owner drills any well into or through the Unitized Formation, the Unitized Formation shall be protected in a manner satisfactory to Working Interest Owners so that the production of Unitized Substances will not be affected adversely.

## ARTICLE 13

### TITLES

13.1 Warranty and Indemnity. Each Working Interest Owner represents and warrants that it is the owner of the respective working interests set forth opposite its name in Exhibit "B" of the Unit Agreement, and agrees to indemnify and hold harmless the other Working Interest Owners from any loss due to failure, in whole or in part, of its title to any such interest, except failure of title arising out of Unit Operations; however, such indemnity and any liability for breach of warranty shall be limited to an amount equal to the net value that has been received from the sale or receipt of Unitized Substances attributed to the interest as to which title failed. Each failure of title will be deemed to be effective, insofar as this Agreement is concerned, as of 7:00 A.M. on the first day of the calendar month in which such failure is finally determined, and there shall be no retroactive adjustment of Unit Expense, or retroactive allocation of Unitized Substances or the proceeds therefrom, as a result of title failure.

13.2 Failure Because of Unit Operations. The failure of title to any Working Interest in any Tract because of Unit Operations, including nonproduction from such Tract, shall not change the Unit Participation of the Working Interest Owner whose title failed in relation to the Unit Participations of the other Working Interest Owners at the time of the title failure.

## ARTICLE 14

### LIABILITY, CLAIMS, AND SUITS

14.1 Individual Liability. The duties, obligations, and liabilities of Working Interest Owners shall be several and not joint or collective; and nothing herein shall ever be construed as creating a partnership of any kind, joint venture, association, or trust among Working Interest Owners.

14.2 Settlements. Unit Operator may settle any single damage claim or suit involving Unit Operations if the expenditure does not exceed Two Thousand Five Hundred Dollars (\$2,500.00) and if the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above amount, Working Interest Owners shall assume and take over the further handling of the claim or suit, unless such authority is delegated to Unit Operator. All costs and expense of handling, settling, or otherwise discharging such claim or suit shall be an item of Unit Expense. If a claim is made against any Working Interest Owner or if any Working Interest Owner is sued on account of any matter arising from Unit Operations over which



such Working Interest Owner individually has no control because of the rights given Working Interest Owners and Unit Operator by this Agreement and the Unit Agreement, the Working Interest Owner shall immediately notify Unit Operator, and the claim or suit shall be treated as any other claim or suit involving Unit Operations.

14.3 Litigation Involving Unit. All litigation, and all settlements or liability for damages arising thereunder, involving or arising out of Unit Operations (specifically including but not limited to actions by third parties claiming damages by virtue of Unit Operations) shall be deemed a Unit expense under Article 11 hereof.

## ARTICLE 15 LAWS AND REGULATIONS

15.1 Internal Revenue Provision. Notwithstanding any provisions herein that the rights and liabilities of the parties hereunder are several and not joint or collective, or that this Agreement and operations hereunder shall not constitute a partnership, if for Federal income tax purposes this Agreement and the operations hereunder are regarded as a partnership, then each of the parties hereto elects to be excluded from the application of all of the provisions of Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1954, as permitted and authorized by Section 761 of the Code and the regulations promulgated thereunder. Unit Operator is hereby authorized and directed to execute on behalf of each of the parties hereto such evidence of this election as may be required by the Secretary of the Treasury of the United States or the Federal Internal Revenue Service, including specifically, but not by way of limitation, all of the returns, statements, and the data required by Federal Regulations 1.761-2. Should there be any requirement that each party hereto further evidence this election, each party hereto agrees to execute such documents and furnish such other evidence as may be required by the Federal Internal Revenue Service or as may be necessary to evidence this election. Each party hereto further agrees not to give any notices or take any other action inconsistent with the election made hereby. If any present or future income tax laws of the state or states in which the Unit Area is located, or any future income tax law of the United States, contain provisions similar to those in Subchapter K, Chapter 1, Subtitle A, of the Internal Revenue Code of 1954, under which an election similar to that provided by section 761 of the Code is permitted, each of the parties agrees to make such election as may be permitted, or required by such laws. In making this election, each of the parties states that the income derived by such party from the operations under this Agreement can be adequately determined without the computation of partnership taxable income.

## ARTICLE 16 NOTICES

16.1 Notices. All notices required hereunder shall be in writing and shall be deemed to have been properly served when sent by mail or telegram to the address of the representative of each Working Interest Owner as furnished to Unit Operator in accordance with Article 4.

## ARTICLE 17 WITHDRAWAL OF WORKING INTEREST OWNER

17.1 Withdrawal. A Working Interest Owner may withdraw from this Agreement by transferring, without warrant of title, either express or implied, to the other Working Interest Owners, all its Oil and Gas Rights

exclusive of Royalty Interests, together with its interest in all Unit Equipment and in all wells used in Unit Operations. The instrument of transfer may be delivered to Unit Operator for the transferees. Such transfer shall not relieve the Working Interest Owner from any obligation or liability incurred prior to the date of the delivery of the instrument of transfer; however, the tender shall be accepted unless Working Interest Owners decide within ninety (90) days to terminate the Unit. The interest transferred shall be owned by the transferees in proportion to their respective Unit Participations then in effect. The transferees, in proportion to the respective interests so acquired, shall pay transferor, for its interest in Unit Equipment, the net salvage value thereof as determined by Working Interest Owners. In the event such withdrawing party's interest in the aforesaid net salvage value after deducting the estimated cost of salvaging same is less than the withdrawing party's share of the estimated cost of plugging and abandoning all wells then being used or held for Unit Operations, then the withdrawing party, as a condition precedent to withdrawal, shall pay in cash to the party or parties succeeding to its interest a sum equal to the deficiency. After the date of delivery of the instrument of transfer, the withdrawing Working Interest Owner shall be relieved from all further obligations and liability hereunder and under the Unit Agreement, and the rights of such Working Interest Owner hereunder and under the Unit Agreement shall cease insofar as they existed by virtue of the interest transferred.

#### ARTICLE 18

##### ABANDONMENT OF WELLS

18.1 Rights of Former Owners. If Working Interest Owners decide to permanently abandon any well within the Unit Area prior to termination of the Unit Agreement, Unit Operator shall give written notice thereof to the Working Interest Owners of the Tract on which the well is located, and they shall have the option for a period of ninety (90) days after the sending of such notice to notify Unit Operator in writing of their election to take over and own the well. Within ten (10) days after the Working Interest Owners of the Tract have notified Unit Operator of their election to take over the well, they shall pay Unit Operator, for credit to the joint account, the amount determined by Working Interest Owners to be the net salvage value of the casing and equipment in and on the well. The Working Interest Owners of the Tract, by taking over the well, agree to seal off the Unitized formation, and upon abandonment to plug the well in compliance with applicable laws and regulations.

18.2 Plugging. If the Working Interest Owners of a Tract do not elect to take over a well located within the Unit Area that is proposed for abandonment, Unit Operator shall plug and abandon the well in compliance with applicable laws and regulations.

#### ARTICLE 19

##### EFFECTIVE DATE AND TERM

19.1 Effective Date. This Agreement shall become effective when the Unit Agreement becomes effective.

19.2 Term. This Agreement shall continue in effect so long as the Unit Agreement remains in effect, and thereafter until (a) all unit

wells have been plugged and abandoned or turned over to Working Interest Owners in accordance with Article 20; (b) all Unit Equipment and real property acquired for the joint account have been disposed of by Unit Operator in accordance with instructions of Working Interest Owners; and (c) there has been a final accounting.

## ARTICLE 20

### ABANDONMENT OF OPERATIONS

20.1 Termination. Upon termination of the Unit Agreement, the following will occur:

20.1.1 Oil and Gas Rights. Oil and Gas Rights in and to each separate Tract shall no longer be affected by this Agreement, and thereafter the parties shall be governed by the terms and provisions of the leases, contracts and other instruments affecting the separate Tracts.

20.1.2 Right to Operate. Working Interest Owners of any Tract that desire to take over and continue to operate wells located thereon may do so by paying Unit Operator, for credit to the joint account, the net salvage values, as determined by Working Interest Owners, of the casing and equipment in and on the wells taken over and by agreeing upon abandonment to plug each well in compliance with applicable laws and regulations.

20.1.3 Salvaging Wells. Unit Operator shall salvage as much of the casing and equipment in or on wells not taken over by Working Interest Owners of separate Tracts as can economically and reasonably be salvaged, and shall cause the wells to be plugged and abandoned in compliance with applicable laws and regulations.

20.1.4 Cost of Abandonment. The cost of abandonment of Unit Operations shall be Unit Expense.

20.1.5 Distribution of Assets. Working Interest Owners shall share in the distribution of Unit Equipment, or the proceeds thereof, in proportion to their Unit Participations.

## ARTICLE 21

### EXECUTION

21.1 Original, Counterpart, or Other Instrument. An owner of a Working Interest may become a party to this Agreement by signing the original of this instrument, a counterpart thereof, or other instrument agreeing to become a party hereto. The signing of any such instrument shall have the same effect as if all parties had signed the same instrument.

ARTICLE 22

SUCCESSORS AND ASSIGNS

22.1 Successors and Assigns. This Agreement shall extend to, be binding upon, and inure to the benefit of the parties hereto and their respective heirs, devisees, legal representatives, successors, and assigns, and shall constitute a covenant running with the lands, leases, and interests covered hereby.

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

BURK ROYALTY CO.  
Unit Operator and Working Interest Owner

BY: \_\_\_\_\_  
Vice-President

800 Oil & Gas Building  
Wichita Falls, Texas 76301

STATE OF TEXAS     X  
                                  SS:  
COUNTY OF WICHITA   X

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 1974, by \_\_\_\_\_, Vice-President for Burk Royalty Co., a Texas corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public in and for  
County, Texas.

My commission expires:

\_\_\_\_\_

EXHIBIT "E"  
To Unit Operating Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1974

	UNIT PARTICIPATION %	
	<u>PHASE I</u>	<u>PHASE II</u>
Abby Corporation	1.4216	1.0608
Amoco Production Company	12.9321	11.2214
Warren D. Barton	.0209	.0261
Albert J. Black	3.2317	2.2327
Burk Royalty Co.	17.2039	22.8815
Wallace G. Comer	.0418	.0523
Crown Central Petroleum Corporation	.9615	.7931
Dalport Oil Corporation	14.8439	18.7989
George Eng	.0836	.1047
Exxon Corporation	18.2422	21.5159
Robert L. Graham	4.6544	3.2228
G. W. Green	.0209	.0261
L. C. Harris	5.0417	3.4046
Charles H. Juni	.0418	.0523
W. W. LaForce, Jr.	.3344	.4189
McClellan Oil Corporation	6.5091	4.6555
A. N. Norwood	.1672	.2095
Alan Q. Norwood	.0836	.1047
Robert M. Patterson	4.6544	3.2228
W. B. Perry, Jr.	.0418	.0523
Roark & Hooker	2.6591	1.0612
Tom Schneider	.1672	.2095
J. Penrod Toles	4.6545	3.2229
Wall Street Oil Corporation	.1672	.2095
Walters Amusements, Inc.	.9615	.7931
Wolfson Oil Company	.8580	.4469
	100.0000	100.0000

(Continued)  
EXHIBIT "E"  
To Unit Operating Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1974

<u>OPERATOR</u>	<u>TRACT</u>	<u>% PARTICIPATION PHASE I</u>	<u>% PARTICIPATION PHASE II</u>
Amoco	12	0.5405	0.7620
	18	10.5362	6.0278
	22	<u>1.8554</u>	<u>4.4316</u>
		12.9321	11.2214
Dalport Oil Corp.	5	12.6312	15.4056
	15	7.6919	6.3449
	16	9.4402	16.3308
	19	<u>4.2075</u>	<u>5.1852</u>
		33.9708	43.2665
Exxon Corporation	8	2.6465	3.9751
	9	2.0059	2.6429
	23	<u>13.5898</u>	<u>14.8979</u>
		18.2422	21.5159
McClellan Oil Corporation	1	12.7509	6.5695
	2	5.0691	3.6679
	3	5.6865	4.2433
	7	1.1147	2.4960
	10		.0114
	13		.0224
	14	1.2319	.8512
	17	4.1471	2.9508
	21	<u>1.3376</u>	<u>1.6755</u>
		31.3378	22.4880
Roark & Hooker	20	2.6591	1.0612
Wolfson Oil Company	4		.0474
	6		.0297
	11	<u>.8580</u>	<u>.3699</u>
		.8580	.4470
		<u><u>100.0000</u></u>	<u><u>100.0000</u></u>

## EXHIBIT " F "

Attached to and made a part of Double L Queen  
Chaves County, New Mexico

# ACCOUNTING PROCEDURE (JOINT OPERATIONS)

## I. GENERAL PROVISIONS

### 1. Definitions

"Joint Property" shall mean the real and personal property subject to the agreement to which this "Accounting Procedure" is attached.

"Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

"Operator" shall mean the party designated to conduct the Joint Operations.

"Non-Operators" shall mean the nonoperating parties, whether one or more.

"Joint Account" shall mean the account showing the charges and credits accruing because of the Joint Operations and which are to be shared by the Parties.

"Parties" shall mean Operator and Non-Operators.

"Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

"Controllable Material" shall mean material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies of North America.

### 2. Conflict with Agreement

In the event of a conflict between the provisions of this Accounting Procedure and the provisions of the agreement to which this Accounting Procedure is attached, the provisions of the agreement shall control.

### ~~3. Collective Action by Non-Operators~~

~~Where an agreement or other action of Non-Operators is expressly required under this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, the agreement or action of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.~~

### 4. Statements and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of costs and expenses, for the preceding month. Such bills will be accompanied by statements reflecting the total charges and credits as set forth under Subparagraph C below:

A. Statement in detail of all charges and credits to the Joint Account.

B. Statement of all charges and credits to the Joint Account, summarized by appropriate classifications indicative of the nature thereof.

C. Statement of all charges and credits to the Joint Account summarized by appropriate classifications indicative of the nature thereof, except that items of Controllable Material and unusual charges and credits shall be detailed.

### 5. Payment and Advances by Non-Operators

Each Non-Operator shall pay its proportion of all such bills within fifteen (15) days after receipt thereof. If payment is not made within such time, the unpaid balance shall bear interest at the rate of ~~six~~ per cent ~~(6%)~~ per annum until paid. ten (10%)

### 6. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operators to protest or question the correctness thereof; provided however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of the Joint Property as provided for in Section VII.

### 7. Audits

A Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the accounting hereunder for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided however, the making of an audit shall not extend the time for the taking of written exception to and the adjustment of accounts as provided for in Paragraph 6 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct joint or simultaneous audits in a manner which will result in a minimum of inconvenience to the Operator.

## II. DIRECT CHARGES

Subject to limitations hereinafter prescribed, Operator shall charge the Joint Account with the following items:

### 1. Rentals and Royalties

Delay or other rentals and royalties when such rentals and royalties are paid by Operator for the Joint Account of the Parties.

### 2. Labor

A. Salaries and wages of Operator's employees directly engaged on the Joint Property in the conduct of the Joint Operations, ~~and salaries or wages of technical employees who are temporarily assigned to and directly employed on the Joint Property.~~

B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to the employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II and Paragraph 1 of Section III; except that in the case of those employees only a pro rata portion of whose salaries and wages are chargeable to the Joint Account under Paragraph 1 of Section III, not more than the same pro rata portion of the benefits and allowances herein provided for shall be charged to the Joint Account. Cost under this Paragraph 2B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 2A of this Section II and Paragraph 1 of Section III. If percentage assessment is used, the rate shall be based on the Operator's cost experience.

C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's labor cost of salaries and wages chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II and Paragraph 1 of Section III.

D. Reasonable personal expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II and for which expenses the employees are reimbursed under Operator's usual practice.

3. Employee Benefits

Operator's current cost of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost; provided however, the total of such charges shall not exceed ~~xxx~~ percent (~~10%~~) of Operator's labor costs chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II and Paragraph 1 of Section III.

4. Material fifteen (15%)

Material purchased or furnished by Operator for use on the Joint Property. So far as it is reasonably practical and consistent with efficient and economical operation, only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use; and the accumulation of surplus stocks shall be avoided.

5. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

- A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store or railway receiving point where like material is available, except by agreement with Non-Operators.
- B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store or railway receiving point, except by agreement with Non-Operators. No charge shall be made to Joint Account for moving Material to other properties belonging to Operator, except by agreement with Non-Operators.
- C. In the application of subparagraphs A and B above, there shall be no equalization of actual gross trucking costs of \$100 or less.

6. Services

- A. The cost of contract services and utilities procured from outside sources other than services covered by Paragraph 8 of this Section II and Paragraph 2 of Section III.
- B. Use and service of equipment and facilities furnished by Operator as provided in Paragraph 5 of Section IV.

7. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or any other cause, except to the extent that the damage or loss could have been avoided through the exercise of reasonable diligence on the part of Operator. Operator shall furnish Non-Operators written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

8. Legal Expense

All costs and expenses of handling, investigating and settling litigation or claims arising by reason of the Joint Operations or necessary to protect or recover the Joint Property, including, but not limited to, attorneys' fees, court costs, cost of investigation or procuring evidence and amounts paid in settlement or satisfaction of any such litigation or claims; provided, (a) no charge shall be made for the services of Operator's legal staff or other regularly employed personnel (such services being considered to be Administrative Overhead under Section III), except by agreement with Non-Operators, and (b) no charge shall be made for the fees and expenses of outside attorneys unless the employment of such attorneys is agreed to by Operator and Non-Operators.

9. Taxes

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof, or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties.

10. Insurance Premiums

Premiums paid for insurance required to be carried on the Joint Property for the protection of the Parties.

11. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III, and which is incurred by the Operator for the necessary and proper conduct of the Joint Operations.

III. INDIRECT CHARGES

Operator may charge the Joint Account for indirect costs either by use of an allocation of district expense items plus a fixed rate for administrative overhead, and plus the warehousing charges, all as provided for in Paragraphs 1, 2, and 3 of this Section III OR by combining all three of said items under the fixed rate provided for in Paragraph 4 of this Section III, as indicated next below:

OPERATOR SHALL CHARGE THE JOINT ACCOUNT UNDER THE TERMS OF:

- ☐ Paragraphs 1, 2 and 3. (Allocation of district expense plus fixed rate for administrative overhead plus warehousing.)
- ☒ Paragraph 4. (Combined fixed rate)

1. District Expense

Operator shall charge the Joint Account with a pro rata portion of the salaries, wages and expenses of Operator's production superintendent and other employees serving the Joint Property and other properties of the Operator in the same operating area, whose time is not allocated directly to the properties, and a pro rata portion of the cost of maintaining and operating a production office known as Operator's \_\_\_\_\_ office located at or near \_\_\_\_\_ (or a comparable office if location changed), and necessary sub-offices (if any), maintained for the convenience of the above-described office, and all necessary camps, including housing facilities for employees if required, used in connection with the operations of the Joint Property and other properties in the same operating area. The expense of, less any revenue from, such facilities may, at the option of Operator, include depreciation of investment or a fair monthly rental in lieu of depreciation. Such charges shall be apportioned to all properties served on some equitable basis consistent with Operator's accounting practice.

2. Administrative Overhead

Operator shall charge administrative overhead to the Joint Account at the following rates, which charge shall be in lieu of the cost and expense of all offices of the Operator not covered by Paragraph 1 of this Section III, including salaries, wages and expenses of personnel assigned to such offices. Such charges shall be in addition to the salaries, wages and expenses of employees of Operator authorized to be charged as direct charges as provided in Paragraphs 2 and 8 of Section II.

WELL BASIS (RATE PER WELL PER MONTH)

Well Depth	DRILLING WELL RATE (Use Total Depth) Each Well	PRODUCING WELL RATE (Use Current Producing Depth)		
		First Five	Next Five	All Wells Over Ten

The cost and expense of services from outside sources in connection with matters of taxation, traffic, accounting, or matters before or involving governmental agencies shall be considered as included in the overhead rates provided for in this Paragraph 2 of Section III, unless such cost and expense are agreed upon between Operator and Non-Operators as a direct charge to the Joint Account.



3. **Operator's Fully Owned Warehouse Operating and Maintenance Expense**  
(Describe fully the agreed procedure to be followed by the Operator.)

4. **Combined Fixed Rates**

Operator shall charge the Joint Account for the services covered by Paragraph 1, 2 and 3 of this Section III, the following fixed per well rates:

**WELL BASIS (RATE PER WELL PER MONTH)**

Well Depth	DRILLING WELL RATE (Use Total Depth)	PRODUCING WELL RATE (Use Current Producing Depth)		
	Each Well	First Five	Next Five	All Wells Over Ten
All	\$750	\$75	\$75	\$75

Said fixed rate (shall) ~~not~~ include salaries and expenses of production foremen.

5. **Application of Administrative Overhead or Combined Fixed Rates**

The following limitations, instructions and charges shall apply in the application of the per well rates as provided under either Paragraph 2 or Paragraph 4 of this Section III:

- A. Charges for drilling wells shall begin on the date each well is spudded and terminate on the date the drilling or completion rig is released, whichever is later, except that no charge shall be made during the suspension of drilling operations for fifteen (15) or more consecutive days.
  - B. The status of wells shall be as follows:
    - (1) Producing gas wells, injection wells for recovery operations, water supply wells utilized for water flooding operations and salt water disposal wells shall be considered the same as producing wells.
    - (2) Wells permanently shut down but on which plugging operations are deferred shall be dropped from the well schedule at the time the shutdown is effected. When such a well is plugged a charge shall be made at the producing well rates.
    - (3) Wells being plugged back, drilled deeper, converted to a source or input well, or which are undergoing any type of workover that requires the use of a drilling or workover rig shall be considered the same as drilling wells.
    - (4) Temporarily shut-down wells, which are not produced or worked upon for a period of a full calendar month, shall not be included in the well schedule, ~~provided however, wells shut in by governmental regulatory body shall be included in the well schedule only in the event the allowable production is transferred to some other well or wells on the Joint Property. In the event of a unit allowable, all wells capable of producing will be counted in determining the charge.~~
    - (5) Gas wells shall be included in the well schedule if directly connected to a permanent sales outlet even though temporarily shut in due to overproduction or failure of purchaser to take the allowed production.
    - (6) Wells completed in multiple horizons, in which the production is not commingled down hole, shall be considered as a producing well for each separately producing horizon.
  - C. The well rates shall apply to the total number of wells being drilled or operated under the agreement to which this Accounting Procedure is attached, irrespective of individual leases.
  - D. The well rates shall be adjusted on the first day of April of each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the preceding calendar year as shown by "The Index of Average Weekly Earnings of Crude Petroleum and Gas Production Workers" as published by the United States Department of Labor, Bureau of Labor Statistics. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.
6. For the construction of compressor plants, water stations, secondary recovery systems, salt water disposal facilities, and other such projects, as distinguished from the more usual drilling and producing operations, Operator in addition to the Administrative Overhead or Combined Fixed Rates provided for in Paragraph 2 and 4 of this Section III, shall charge the Joint Account with an additional overhead charge as follows:
- A. Total cost less than \$25,000, no charge.
  - B. Total cost more than \$25,000 but less than \$100,000, 3 % of total cost.
  - C. Total cost of \$100,000 or more, 3 % of the first \$100,000 plus 2 % of all over \$100,000 of total cost.
- Total cost shall mean the total gross cost of any one project. For the purpose of this Paragraph the component parts of a single project shall not be treated separately and the cost of drilling wells shall be excluded.
7. The specific rates provided for in this Section III may be amended from time to time by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

**IV. BASIS OF CHARGES TO JOINT ACCOUNT**

Subject to the further provisions of this Section IV, Operator will procure all Material and services for the Joint Property. At the Operator's option, Non-Operator may supply Material or services for the Joint Property.

1. **Purchases**

Material purchased and service procured shall be charged at the price paid by Operator after deduction of all discounts actually received.

2. **Material furnished from Operator's Warehouse or Other Properties**

A. **New Material (Condition "A")**

- (1) Tubular goods, two inch (2") and over, shall be priced on Eastern Mill base (i. e. Youngstown, Ohio; Lorain, Ohio; and Indiana Harbor, Indiana) on a minimum carload basis effective at date of movement and f. o. b. railway receiving point nearest the Joint Property, regardless of quantity. In equalized hauling charges, Operator is permitted to include ten cents (10c) per hundred-weight on all tubular goods furnished from his stocks in lieu of loading and unloading costs sustained.
- (2) Other Material shall be priced at the current replacement cost of the same kind of Material, effective at date of movement and f. o. b. the supply store or railway receiving point nearest the Joint Property where Material of the same kind is available.
- (3) The Joint Account shall not be credited with cash discounts applicable to prices provided for in this Paragraph 2 of Section IV.

B. **Used Material (Condition "B" and "C")**

- (1) Material in sound and serviceable condition and suitable for reuse without reconditioning, shall be classified as Condition "B" and priced at seventy-five per cent (75%) of the current price of new Material.
- (2) Material which cannot be classified as Condition "B" but which,
  - (a) After reconditioning will be further serviceable for original function as good secondhand Material (Condition "B"), or
  - (b) Is serviceable for original function but substantially not suitable for reconditioning, shall be classified as Condition "C" and priced at fifty per cent (50%) of current new price.
- (3) Obsolete Material or Material which cannot be classified as Condition "B" or Condition "C" shall be priced at a value commensurate with its use. Material no longer suitable for its original purpose but usable for

some other purpose, shall be priced on a basis comparable with that of items normally used for such other purpose.

- (4) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

**3. Premium Prices**

Whenever Material is not readily obtainable at prices specified in Paragraphs 1 and 2 of this Section IV because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in procuring such Material, in making it suitable for use, and in moving it to the Joint Property, provided, that notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within 10 days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

**4. Warranty of Material Furnished by Operator**

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

**5. Equipment and Facilities Furnished by Operator**

A. Operator shall charge the Joint Account for use of equipment and facilities at rates commensurate with cost of ownership and operation. Such rates shall include cost of maintenance, repairs, other operating expense, insurance, taxes, depreciation and interest on investment not to exceed ~~ten~~ **eight** per cent ~~(10%)~~ **(8%)** per annum, provided such rates shall not exceed those currently prevailing in the immediate area within which the Joint Property is located. Rates for automotive equipment shall generally be in line with the schedule of rates adopted by the Petroleum Motor Transport Association, or some other recognized organization, as recommended uniform charges against Joint Property operations. Rates for laboratory services shall not exceed those currently prevailing if performed by outside service laboratories. Rates for trucks, tractors and well service units may include wages and expenses of operator.

B. Whenever requested, Operator shall inform Non-Operators in advance of the rates it proposes to charge.

C. Rates shall be revised and adjusted from time to time when found to be either excessive or insufficient.

**V. DISPOSAL OF MATERIAL**

The Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus Condition "A" or "B" Material. The disposition of surplus Controllable Material, not purchased by Operator, shall be subject to agreement between Operator and Non-Operators, provided Operator shall dispose of normal accumulations of junk and scrap Material either by transfer or sale from the Joint Property.

**1. Material Purchased by the Operator or Non-Operators**

Material purchased by either the Operator or Non-Operators shall be credited by the Operator to the Joint Account for the month in which the Material is removed by the purchaser.

**2. Division in Kind**

Division of Material in kind, if made between Operator and Non-Operators, shall be in proportion to the respective interests in such Material. The Parties will thereupon be charged individually with the value of the Material received or receivable. Proper credits shall be made by the Operator in the monthly statement of operations.

**3. Sales to Outsiders**

Sales to outsiders of Material from the Joint Property shall be credited by Operator to the Joint Account at the net amount collected by Operator from vendee. Any claim by vendee related to such sale shall be charged back to the Joint Account if and when paid by Operator.

**VI. BASIS OF PRICING MATERIAL TRANSFERRED FROM JOINT ACCOUNT**

Material purchased by either Operator or Non-Operators or divided in kind, unless otherwise agreed to between Operator and Non-Operators shall be priced on the following basis:

**1. New Price Defined**

New price as used in this Section VI shall be the price specified for New Material in Section IV.

**2. New Material**

New Material (Condition "A"), being new Material procured for the Joint Property but never used, at one hundred per cent (100%) of current new price (plus sales tax if any).

**3. Good Used Material**

Good used Material (Condition "B"), being used Material in sound and serviceable condition, suitable for reuse without reconditioning:

A. At seventy-five per cent (75%) of current new price if Material was charged to Joint Account as new, or

B. At sixty-five per cent (65%) of current new price if Material was originally charged to the Joint Account as secondhand at seventy-five percent (75%) of new price.

**4. Other Used Material**

Used Material (Condition "C"), at fifty per cent (50%) of current new price, being used Material which:

A. Is not in sound and serviceable condition but suitable for reuse after reconditioning, or

B. Is serviceable for original function but not suitable for reconditioning.

**5. Bad-Order Material**

Material (Condition "D"), no longer suitable for its original purpose without excessive repair cost but usable for some other purpose at a price comparable with that of items normally used for such other purpose.

**6. Junk Material**

Junk Material (Condition "E"), being obsolete and scrap Material, at prevailing prices.

**7. Temporarily Used Material**

When the use of Material is temporary and its service to the Joint Property does not justify the reduction in price as provided for in Paragraph 3 B of this Section VI, such Material shall be priced on a basis that will leave a net charge to the Joint Account consistent with the value of the service rendered.

**VII. INVENTORIES**

The Operator shall maintain detailed records of Material generally considered controllable by the Industry.

**1. Periodic Inventories, Notice and Representation**

At reasonable intervals, inventories shall be taken by Operator of the Joint Account Material, which shall include all such Material as is ordinarily considered controllable. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator, who shall in that event furnish Non-Operators with a copy thereof.

**2. Reconciliation and Adjustment of Inventories**

Reconciliation of inventory with charges to the Joint Account shall be made, and a list of overages and shortages shall be jointly determined by Operator and Non-Operators. Inventory adjustments shall be made by Operator with the Joint Account for overages and shortages, but Operator shall be held accountable to Non-Operator only for shortages due to lack of reasonable diligence.

**3. Special Inventories**

Special inventories may be taken whenever there is any sale or change of interest in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory.

EXHIBIT "C"  
To Unit Operating Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1974

INSURANCE PROVISIONS

Unit Operator shall carry the following insurance with respect to operations on all lands subject to this agreement:

- (a) Comprehensive general liability insurance, excluding products, with a single combined limit of \$500,000 each accident for bodily injuries or death and property damage.
- (b) Automobile public liability and property damage insurance with a single combined limit of \$500,000 each accident for bodily injuries or death and property damage.
- (c) Such additional insurance as may hereafter be required by law.

All insurance coverage required hereby shall be carried at the joint expense and for the benefit of the parties hereto, except for premiums for Automobile Public Liability and Property Damage Insurance on Unit Operator's fully owned equipment, which shall not be charged directly to the joint account but will, instead, be covered by the flat rate charges assessed the unit of such equipment. Unit Operator will not carry fire, windstorm, or explosion insurance covering operations hereunder. Unit Operator shall require its contractors and subcontractors working and performing services on lands committed hereto to comply with the workmen's compensation laws of the State and to carry other insurance of the types specified above and such amounts as the Unit Operator shall deem necessary.

have 96.7% WI approval

UNIT AGREEMENT

DOUBLE L QUEEN UNIT

COUNTY OF CHAVES

STATE OF NEW MEXICO

UNIT AGREEMENT  
DOUBLE L QUEEN UNIT  
CHAVES COUNTY, NEW MEXICO

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UNIT AGREEMENT  
FOR THE DEVELOPMENT AND OPERATION OF THE  
DOUBLE L QUEEN UNIT  
CHAVES COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the 1st day of January, 1975, by and between the parties subscribing, ratifying or consenting hereto, and herein referred to as "Parties hereto";

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty or other oil or gas interests in the Unit Area subject to this Agreement; and

WHEREAS, the Mineral Leasing Act of February 25, 1920, (41 Stat. 437, as amended 30 U.S.C. Sections 181 et seq.) authorizes Federal lessees and their representatives to unite with each other, or jointly or separately with others in collectively adopting and operating a unit plan of development or operation of any oil or gas pool, field, or like area, or any part thereof for the purpose of more properly conserving the natural resources thereof whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Sec. 3, Chap. 88, Laws 1943 as amended by Section 1 of Chap. 162, Laws of 1951, Chap. 7, Art 11, Sec. 39, N.M.S. 1953 Ann.) 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

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Sec. 3, Chap. 88, Laws of 1943, as amended by Sec. 1, Chap. 162, Laws of 1951, Chap. 7, Art 11, Sec. 41, N.M.S. and 1953 Ann.) 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

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; and

WHEREAS, the parties hereto hold sufficient interests in the Double L Queen Unit covering the land hereinafter described to give reasonably effective control of operation therein; and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, to prevent waste and secure the 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 unitized formation of the below defined Unit Area, and agree severally among themselves as follows:

SECTION 1. 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 and valid, pertinent and reasonable regulations hereafter issued thereunder are accepted and made a part of this Agreement as to Federal lands, 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.

SECTION 2. UNIT AREA AND DEFINITIONS. For the purpose of this Agreement, the following terms and expressions as used herein shall mean:

(a) "Unit Area" is defined as those lands described in Exhibit "B" and depicted on Exhibit "A" hereof, and such land is hereby designated and recognized as constituting the Unit Area, containing 2,670.10 acres, more or less, in Chaves County, New Mexico.

(b) "Land Commissioner" is defined as the Commissioner of Public Lands of the State of New Mexico.

(c) "Commission" is defined as the Oil Conservation Commission of the State of New Mexico.

(d) "Director" is defined as the Director of the United States Geological Survey.

(e) "Secretary" is defined as the Secretary of the Interior of the United States of America, or his duly authorized delegate.

(f) "Department" is defined as the Department of the Interior of the United States of America.

(g) "Supervisor" is defined as the Oil and Gas Supervisor of the United States Geological Survey for the area in which the Unit Area is situated.

(h) "Unitized Formation" shall mean that subsurface portion of the Unit Area commonly known as the Queen Formation, and which is the same formation that was encountered between the logged depths of 1870' (subsea elevation of +1984') and 1980' (subsea elevation of +1874') in Dalport Oil Corporation's Spurck State Well #5 as shown on the Schlumberger Compensated Formation Density log of said well dated July 30, 1969 which well is located 1980' FSL and 1980' FEL of Section 36, T-14-S, R-29-E, Chaves County, New Mexico.

(i) "Unitized Substances" are all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate and all associated and constituent liquid or liquefiable hydrocarbons within and produced from the Unitized Formation, of the Unitized Land.

(j) "Tract" is each parcel of land described as such and given a Tract number in Exhibit "B".

(k) "Tract Participation" is defined as the percentage of participation shown on Exhibit "C" for allocating Unitized Substances to a Tract under this Agreement.

(l) "Unit Participation" is the sum of the percentages obtained by multiplying the Working Interest of a Working Interest Owner in each Tract by the Tract Participation of such Tract.

(m) "Working Interest" is the right to search for, produce and acquire Unitized Substances whether held as an incident of ownership of mineral fee simple title, under an oil and gas lease, or otherwise held, 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 and producing the Unitized Substances from the Unitized Formation and operations thereof hereunder. Provided that any royalty interest created out of a working interest subsequent to the execution of this Agreement by the owner of the working interest shall continue to be subject to such working interest burdens and obligations.

(n) "Working Interest Owner" is any party hereto owning a Working Interest, including a carried working interest owner, holding an interest in Unitized Substances by virtue of a lease, operating agreement, fee title or otherwise. The owner of Oil and Gas Rights that are free of lease or other instrument creating a Working Interest in 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.



(o) "Royalty Interest" or "Royalty" is an interest reserved to the original lessor or other party in or right to receive a portion of the Unitized Substances or the proceeds thereof, but does not include any overriding royalty interest, oil payment interest, net profit contracts, or any other payments or burdens which does not carry with it the right to search for and produce Unitized Substances.

(p) "Royalty Owner" is the owner of a Royalty Interest.

(q) "Unit Operating Agreement" is the agreement entered into by and between the Unit Operator and the Working Interest Owners as provided in section 9, infra, and shall be styled "Unit Operating Agreement, Double L Queen Unit, Chaves County, New Mexico".

(r) "Oil and Gas Rights" is 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.

(s) "Outside Substances" is any substance obtained from any source other than the Unitized Formation and injected into the Unitized Formation.

(t) "Unit Manager" is any person or corporation appointed by Working Interest Owners to perform the duties of Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Section 7 herof.

(u) "Unit Operator" is the party designated by Working Interest Owners under the Unit Operating Agreement to conduct Unit Operations.

(v) "Unit Operations" is any operation conducted pursuant to this Agreement and the Unit Operating Agreement.

(w) "Unit Equipment" is all personal property, lease and well equipment, plants, adn other facilities and equipment taken over or otherwise acquired for the joint account for use in Unit Operations.

(x) "Unit Expense" is all cost, expense, or indebtedness incurred pursuant to this Agreement and the Unit Operating Agreement for or on account of Unit Operations.

(y) "Overriding Royalty Interest" is an interest in or right to receive a portion of the Unitized Substances or the proceeds therefrom as an overriding royalty interest, oil payment interest, net profits contracts, or any other payment or burden, exclusive of a Royalty Interest, which does not carry with it the right to search for or produce Unitized Substances.

SECTION 3. EXHIBITS. Exhibit "A" attached hereto is a map showing the Unit Area and the boundaries and identity of tracts and leases in said Unit 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 comprising each Tract, percentages and kind of ownership of oil and gas interests in all land in the Unit Area. Exhibit "C" attached hereto shows the Tract Participation of each Tract in the

Unit Area. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto 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. Exhibit "D" attached hereto is the provisions of paragraphs 1 through 7 of Section 202 of Executive Order 11246 as amended. Exhibits, "A", "B", and "C" shall be revised by the Unit Operator whenever changes in the Unit Area render such revision necessary or when requested by the Supervisor, and copies of such revision shall be filed with the Land Commissioner, and not less than five copies shall be filed with the Supervisor.

SECTION 4. EXPANSION. The above described Unit Area may when practicable be expanded to include therein any additional Tract or Tracts regarded as reasonably necessary or advisable for the purposes of this Agreement. Such expansion shall be effected in the following manner:

(a) The Working Interest Owner or Owners of a Tract or Tracts desiring to bring such Tract or Tracts into this unit, shall file an application therefor with Unit Operator requesting such admission.

(b) Unit Operator shall circulate a notice of the proposed expansion to each Working Interest Owner in the Unit Area and in the Tract proposed to be included in the unit, setting out the basis for admission, the Tract Participation to be assigned to each Tract in the enlarged Unit Area and other pertinent data. After negotiation (at Working Interest Owner's meeting or otherwise) if at least three Working Interest Owners having in the aggregate seventy-five percent (75%) Unit Participation then in effect have agreed to inclusion of such Tract or Tracts in the Unit Area, the Unit Operator shall:

(1) After obtaining preliminary concurrence by the Director, prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reason therefor, the basis for admission of the additional Tract or Tracts, the Tract Participation to be assigned thereto and the proposed effective date thereof; and

(2) Deliver copies of said notice to the Land Commissioner, the Supervisor, each Working Interest Owner and to the lessee and lessor whose interests are affected, advising such parties that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion; and

(3) File, upon the expiration of said thirty (30) day period as set out in (2) immediately above with the Land Commissioner and Supervisor the following: (a) Evidence of mailing or delivering copies of said notice of expansion; (b) An application for approval of such expansion; (c) An instrument containing the appropriate joinders in compliance with the participation requirements of Section 14, and Section 32, infra; and (d) A copy of all objections received along with the operators response thereto.

The expansion shall, after due consideration of all pertinent information and approval by the Land Commissioner and the Supervisor, become effective as of the date prescribed in the notice thereof, preferably the first day of a month subsequent to the date of notice. The revised Tract Participation of the respective Tracts included within the Unit Area prior to such enlargement shall remain the same ratio one to another.

SECTION 5. UNITIZED LAND. All land committed to this Agreement as to the Unitized Formation shall constitute land referred to herein as "Unitized Land" or "Land subject to this Agreement". Nothing herein shall be construed to unitize, pool, or in any way affect the oil, gas and other minerals contained in or that may be produced from any formation other than the Unitized Formation as defined in Section 2 (h) of this Agreement.

SECTION 6. UNIT OPERATOR. Burk Royalty Co. is hereby designated the Unit Operator, and by signing this instrument as Unit Operator agrees and consents to accept the duties and obligations of Unit Operator for the operation, 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 interests in Unitized Substances, when such interests are owned by it and the term "Working Interest Owner" when used herein shall include or refer to the Unit Operator as the owner of a Working Interest when such an interest is owned by it.

The interest of Working Interest Owners and the Unit Operator in the Unit Area shall be subject to a reciprocal lien and security interest to the extent provided in the Unit Operating Agreement.

SECTION 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 Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners, the Land Commissioner and the Supervisor unless a new Unit Operator shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period. The resignation or removal of Unit Operator shall not release Unit Operator from any liability for any default by it hereunder occurring prior to the effective date of its resignation or removal.

The Unit Operator shall be subject to removal by Working Interest Owners having in the aggregate seventy percent (70%) or more Unit Participation then in effect exclusive of the Working Interest Owner who is the Unit Operator. Such removal shall be effective upon notice thereof to the Land Commissioner and the Supervisor.

In all such instances of effective resignation or removal, until a successor to Unit Operator is selected and approved as hereinafter pro-

vided, the Working Interest Owners shall be jointly responsible for the performance of the duties of the Unit Operator and shall, not later than thirty (30) days before such resignation or removal becomes effective, appoint a Unit Manager to represent them in any action to be taken hereunder.

The resignation or removal of Unit Operator under this Agreement shall not terminate its right, 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, books and records, materials, appurtenances and any other assets used in connection with the Unit Operations and owned by the Working Interest Owners to the new duly qualified successor Unit Operator or to the Unit Manager 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 the removal of any material, equipment or appurtenances needed for the preservation of any wells. Nothing herein contained shall be construed to relieve or discharge any Unit Operator or Unit Manager who resigns or is removed hereunder from any liability or duties accruing or performable by it prior to the effective date of such resignation or removal.

SECTION 8. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, the Working Interest Owners shall select a successor Unit Operator as herein provided. 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 Land Commissioner and the Supervisor. If no successor Unit Operator or Unit Manager is selected and qualified as herein provided, the Land Commissioner and/or the Director, at their election, may declare this Agreement terminated.

In selecting a successor Unit Operator the affirmative vote of three or more Working Interest Owners having a total of sixty-five percent (65%) or more of the total Unit Participation shall prevail; provided that if any one Working Interest Owner has a Unit Participation of more than thirty-five percent (35%), its negative vote or failure to vote shall not be regarded as sufficient unless supported by the vote of one or more other Working Interest Owners having a total Unit Participation of at least five percent (5%). If the Unit Operator who is removed votes only to succeed itself or fails to vote, the successor Unit Operator may be selected by the affirmative vote of the owners of at least seventy-five percent (75%) of the Unit Participation remaining after excluding the Unit Participation of Unit Operator so removed.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT.

Costs and expenses incurred by Unit Operator in conducting Unit Operations hereunder shall be paid, apportioned among and borne by the Working Interest Owners in accordance with the Unit Operating Agreement. Such Unit Operating Agreement shall also provide the manner in which the Working Interest Owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases or other contracts and such other rights and obligations as between Unit Operator and the Working Interest Owners as may be agreed upon by the 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 Agreement or to relieve the Unit Operator of any right or obligation established under this Agreement, and in case of any inconsistency or conflict between this Agreement and the Unit Operating Agreement, this Agreement shall prevail. Copies of any Unit Operating Agreement executed pursuant to this Section shall be filed with the Land Commissioner and with the Supervisor as required prior to approval of this Agreement.

SECTION 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 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. Upon request, acceptable evidence of title to said rights shall be deposited with said Unit Operator, 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.

SECTION 11. PLAN OF OPERATIONS. It is recognized and agreed by the parties hereto that all of the land subject to this Agreement is reasonably proved to be productive of Unitized Substances and that the object and purpose of this Agreement is to formulate and to put into effect an improved recovery project in order to effect additional recovery of Unitized Substances, prevent waste and conserve natural resources. The parties hereto agree that the Unit Operator may, subject to the consent and approval of a Plan of Operation by the Working Interest Owners, the Supervisor, the Land Commissioner and the Commission, inject into the Unitized Formation, through any well or wells completed therein, brine, water, air, gas, oil, liquefied petroleum gases and any one or more other substances or combination of substances whether produced from the Unitized Land or not, and that the location of input wells and the rates of injection therein shall be governed by standards of good geologic and petroleum engineering practices and conservation methods. Subject to like approval the Plan of Operation may be revised as conditions may warrant.

The initial Plan of Operation shall be filed with the Supervisor, the Land Commissioner and the Commission concurrently with the filing of this Agreement for final approval. Said initial Plan of Operation and all revisions thereof shall be as complete and adequate as the Supervisor, the Land Commissioner and the Commission may determine to be necessary for timely operation consistent herewith. Upon approval of this Agreement and the initial plan by the Supervisor and Commissioner, said plan, and all subsequently approved plans shall constitute the operating obligations of the Unit Operator under this 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. After such operations are commenced, reasonable diligence shall be exercised by the Unit Operator in complying with the obligations of the approved Plan of Operation.

Notwithstanding anything to the contrary herein contained, should the Unit Operator fail to commence operation of an improved recovery project incorporating the injection of water within one (1) year after the effective date of this Agreement, or any extension thereof approved by the Supervisor, this Agreement shall terminate automatically as of the date of default.

SECTION 12. USE OF SURFACE AND USE OF WATER. The parties have to the extent of their rights and interests, hereby granted to Unit Operator the right to use as much of the surface of the Unitized Land as may reasonably be necessary for Unit Operations; provided that nothing herein shall be construed as leasing or otherwise conveying to the Unit Operator a site for water, gas injection or other plants or camp site.

Unit Operator shall have free use of water or brine or both from the Unitized Land for Unit Operations, except water from any well, lake, pond or irrigation ditch of a surface Owner, unless approval for such use is granted by the surface Owner.

Unit Operator shall pay the Owner for damages to growing crops, timber, fences, improvements and structures on the Unitized Land that result from Unit Operations.

SECTION 13. TRACT PARTICIPATION. In Exhibit "C" attached hereto there are listed and numbered the various Tracts within the Unit Area, and set forth opposite each Tract are figures which represent the Tract Participation, during Phase I and Phase II of Unit Operations if all Tracts in the Unit Area qualify as provided herein. The Phase I and

Phase II Tract Participations of each Tract as shown in Exhibit "C" were determined in accordance with the following formulas:

Tract Participation during Phase I: 50% A + 50% B

Phase II: 55% C + 45% D

Where A = Ratio of the volume of oil determined to be producible after 12/1/72 from each Tract to the summation of the volume of producible oil after 12/1/72 from all Tracts being 346,846 barrels.

B = Ratio of the gross income from each Tract to the summation of the gross income from all Tracts for the period 6/1/72 to 12/1/72 being \$415,900.18.

C = Ratio of the volume of oil determined to be ultimately producible from each Tract to the summation of the volume determined to be ultimately producible from all Tracts being 1,470,758 barrels.

D = Ratio of the Acre-Feet of originally productive oil reservoir from each Tract to the summation of Acre-Feet from all Tracts being 10,077.3 acre feet.

Phase I shall begin on the Effective Date of this Agreement and continuing until the first day of the calendar month next following the date on which the total number of barrels of oil produced from the Unitized Formation underlying all Tracts described in the original Exhibit "B" hereof equals 1,470,758 barrels as determined from the official production reports (currently known as C-115 reports) filed with the New Mexico Conservation Commission. Phase II shall begin with the termination of Phase I and continue for the remainder of the term of this Agreement.

In the event less than all Tracts are qualified on the Effective Date hereof, the Tract Participations shall be calculated on the basis of all such qualified Tracts rather than all Tracts in the Unit Area. The total number of barrels of oil to be produced before Phase II begins shall remain at 1,470,758 barrels; however, oil produced from all Tracts within the Unit Area, qualified as well as non-qualified Tracts, shall count toward the required total of 1,470,758 barrels.

SECTION 14. TRACTS QUALIFIED FOR PARTICIPATION. On and after the Effective Date hereof the Tracts within the Unit Area which shall be

entitled to participation in the production of Unitized Substances shall be those Tracts more particularly described in Exhibit "B" that corner or have a common boundary (Tracts separated only by a public highway or a railroad right of way shall be considered to have a common boundary), and that otherwise qualify as follows:

(a) 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 seventy-five percent (75%) or more of the Royalty Interest have become parties to this Agreement.

(b) 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 seventy-five percent (75%) of the Royalty Interest have become parties to this Agreement, and as to which (1) Working Interest Owners, including the Working Interest Owner who operates the Tract, owning a total of seventy-five percent (75%) or more of the Working Interest in such Tract that is committed to this agreement have joined in a request for the inclusion of such Tract in the Unit Area, and as to which (2) Working Interest Owners having seventy-five percent (75%) or more of the combined Phase I Unit Participation in all Tracts that meet the requirements of Section 14 (a) above have voted in favor of the inclusion of such tract. (3) As to leases issued by the United States of America the joinder to this Agreement by the lessee of record shall supplant joinder of the Royalty Interest.

(c) 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 (1) Working Interest Owners, including the Working Interest Owner who operates the Tract, owning a total of seventy-five percent (75%) or more of the Working Interest in such Tract that is committed to this Agreement have joined in a request for inclusion of such Tract in the Unit Area, and have executed and delivered, or obligated themselves to execute and deliver, an indemnity agreement indemnifying and agreeing to 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 Interest 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 (2) Working Interest Owners having seventy-five percent (75%) or more of the Unit Participation in all Tracts that meet the requirements of Section 14 (a) and 14(b) have voted in favor of the inclusion of such tract and to accept the indemnity agreement. Upon the inclusion of such a Tract in the Unit Area, the Tract Participations which would have been attributed to the non-subscribing owners of 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 agreements, and joined in the indemnity agreement, in proportion to their respective Working Interests in the Tract.



If on the Effective Date of this Agreement there is any Tract or Tracts which have not been effectively committed to or made subject to this Agreement by qualifying as above provided, then such Tract or Tracts shall not be entitled to participate hereunder. Unit Operator shall, when submitting this Agreement for final approval by the Land Commissioner and the Supervisor, file therewith a schedule of those Tracts which have been committed and made subject to this Agreement and are entitled to participate in Unitized Substances. Said schedule shall set forth opposite each such committed Tract the lease number or assignment number, the owner of record of the lease, and the percentage participation of such Tract which shall be computed according to the participation formula set out in Section 13 (Tract Participation) above. This schedule of participation shall be Revised Exhibit "C" and upon approval thereof by the Land Commissioner and the Supervisor shall become a part of this Agreement and shall govern the allocation of production of Unitized Substances until a new schedule is approved by the Land Commissioner and Supervisor.

SECTION 15. ALLOCATION OF UNITIZED SUBSTANCES. All Unitized Substances produced and saved (less, save and except any part of such Unitized Substances used in conformity with good operating practices on unitized land for drilling, operating, camp and other production or development purposes and for injection or unavoidable loss in accordance with a Plan of Operation approved by the Supervisor) shall be apportioned among and allocated to the qualified Tracts in accordance with the respective Tract Participations effective hereunder during the respective periods such Unitized Substances were produced, as set forth in the schedule of participation in Exhibit "C". The amount of Unitized Substances so allocated to each Tract, and only that amount, (regardless of whether it be more or less than the amount of the actual production of Unitized Substances from the well or wells, if any, on such Tract) shall, for all intents, uses and purposes, be deemed to have been produced from such Tract.

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 Tracts, or in the proceeds thereof, had this Agreement not been entered into; and with the same legal force and effect.

No Tract committed to this Agreement and qualified for participation as above provided shall be subsequently excluded from participation hereunder on account of depletion of Unitized Substances.

If the Working Interest and/or the Royalty Interest in any Tract are divided with respect to separate parcels or portions of such Tract and owned now or hereafter in severalty by different persons, the Tract Participation during both Phase I and Phase II shall, in the absence of a recordable instrument executed by all owners and furnished to Unit Operator fixing the divisions of ownership, be divided among such parcels or portions in proportion to the number of surface acres in each.

The Unitized Substances allocated to each Tract shall be delivered in kind to the respective Working Interest Owners and parties entitled thereto by virtue of the ownership of Oil and Gas Rights therein. Each Working Interest Owner and the parties entitled thereto shall have the continuing right to receive such production in kind at a common point within the Unit Area and to sell or dispose of the same as it sees fit. Each such party shall have the right to construct, maintain and operate all necessary facilities for that purpose on unitized land, provided the same are so constructed, maintained and operated as not to interfere with operations carried on pursuant hereto. Subject to Section 17 hereof, any extra expenditure incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the party responsible therefor under the controlling lease or contract. In the event any Interest Owner shall fail to take or otherwise adequately dispose of its proportionate share of the production from the Unitized Formation currently as and when produced, then so long as such condition continues, Unit Operator, for the account and at the expense of the Working Interest Owner of the Tract or Tracts concerned, and in order to avoid curtailing the operation of the Unit Area, may, but shall not be required to, sell or otherwise dispose of such production to itself or to others on a day-to-day basis, 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, and at not less than the prevailing market price in the area for like production, and the account of such Working Interest Owner shall be charged therewith as having received such production. The net proceeds, if any, of the Unitized Substances so disposed of by Unit Operator shall be paid to the Working Interest Owner of the Tract or Tracts concerned. Notwithstanding the foregoing, Unit Operator shall not make a sale into interstate commerce of any Working Interest Owner's share of gas production without first giving such Working Interest Owner sixty (60) days notice of such intended sale.

Any Working Interest Owner receiving in kind or separately disposing of all or any part of the Unitized Substances allocated to any Tract,

or receiving the proceeds therefrom if the same is sold or purchased by Unit Operator, shall be responsible for the payment of all Royalty, overriding royalty and production payments due thereon, and each such party shall hold each other Working Interest Owner harmless against all claims, demands and causes of action by owners of such Royalty, overriding royalty and production payments.

If, after the Effective Date of this Agreement, there is any Tract or Tracts that are subsequently committed hereto, as provided in Section 4 (Expansion) hereof, or any Tract or Tracts within the Unit Area not committed hereto as of the Effective Date hereof but which are subsequently committed hereto under the provisions of Section 14 (Tracts Qualified for Participation) and Section 32 (Nonjoinder and Subsequent Joinder), or if any Tract is excluded from this Agreement as provided for in Section 31 (Loss of Title), the schedule of participation as shown in Exhibit "C", shall be revised by the Unit Operator; and the revised Exhibit "C", upon approval by the Land Commissioner and the Supervisor, shall govern the allocation of production on and after the effective date thereof until a revised schedule is approved as hereinabove provided. 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.

SECTION 16. OUTSIDE SUBSTANCES. If gas obtained from formations not subject to this Agreement is introduced into the Unitized Formation for use in repressuring, stimulating of production or increasing ultimate recovery which shall be in conformity with a Plan of Operation first approved by the Land Commissioner, the Commission, and the Supervisor, a like amount of gas with appropriate deduction for loss or depletion from any cause may be withdrawn from unit wells completed in the Unitized Formation royalty free as to dry gas, but not royalty free as to the products extracted therefrom; provided that such withdrawal shall be at such time as may be provided in the approved Plan of Operation or as otherwise may be consented to or prescribed by the Land Commissioner, the Commission, and the Supervisor as conforming to good petroleum engineering practices and provided further that such right of withdrawal shall terminate on the termination date of this Agreement.

SECTION 17. ROYALTY SETTLEMENT. The State of New Mexico and United States of America and all Royalty Owners who, under an existing contract, are entitled to take in kind a share of the substances produced from any Tract unitized hereunder, shall continue to be entitled to such 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 not taken in kind shall be made by Working Interest Owners responsible therefor 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 Royalty due under their leases, except that such Royalty shall be computed on Unitized Substances as allocated to each Tract in accordance with the terms of this Agreement. With respect to Federal leases committed hereto on which the royalty rate depends upon the daily average production per well, such average production shall be determined in accordance with the operating regulations pertaining to Federal leases as though the committed Tracts were included in a single consolidated lease.

If the amount of production or the proceeds thereof accruing to any Royalty Owner (except the United States of America) in a Tract depends upon the average production per well or the average pipeline runs per well from such Tract during any period of time, then such production shall be determined from and after the effective date hereof by dividing the quantity of Unitized Substances allocated hereunder to such Tract during such period of time by the number of wells located thereon capable of producing Unitized Substances as of the Effective Date hereof, provided that any Tract not having any well so capable of producing Unitized Substances on the Effective Date hereof shall be considered as having one such well for the purpose of this provision.

All Royalty due the State of New Mexico and the United States of America and the other Royalty Owners hereunder shall be computed and paid on the basis of all Unitized Substances allocated to the respective Tract or Tracts committed hereto, in lieu of actual production from such Tract or Tracts.

Each Royalty Owner (other than the State of New Mexico and the United States of America) that executes this Agreement represents and warrants that it is the owner of a Royalty Interest in a 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 interests of all parties shall be adjusted accordingly.

SECTION 18. RENTAL SETTLEMENT. Rentals or minimum Royalties due on leases committed hereto shall be paid by Working Interest Owners responsible therefor 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 or minimum Royalty for lands of the United States of America subject to this Agreement shall be paid at the rate specified in the respective leases from the United States of America, unless such rental or minimum Royalty is waived, suspended or reduced by law or by approval of the Secretary or his duly authorized representative.

SECTION 19. 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 Federal and State laws and regulations.

SECTION 20. DRAINAGE. The Unit Operator shall take appropriate and adequate measures to prevent drainage of Unitized Substances from unitized land by wells on land not subject to this Agreement.

The Unit Operator, upon approval by the Working Interest Owners, the Supervisor and the Land Commissioner, is hereby empowered to enter into a border line agreement or agreements with working interest owners of adjoining lands not subject to this Agreement with respect to operation in the border area for the maximum economic recovery, conservation purposes and proper protection of the parties and interest affected.

SECTION 21. LEASES 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 on 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 and the Land Commissioner, respectively, shall and by their approval hereof, or by the approval hereof by their duly authorized representatives, do hereby establish, alter, change or revoke the drilling, producing, rental, minimum Royalty and Royalty requirements of Federal and State 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 part or separately owned Tract subject to this Agreement, regardless of whether there is any development of any particular part or Tract of the Unit Area, 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, producing or improved recovery operations performed hereunder shall be deemed to be performed upon and for the benefit of each Tract, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.

(c) Suspension of drilling or producing operations on all unitized lands pursuant to direction or consent of the Land Commissioner and the Secretary, or their duly authorized representatives, shall be deemed to constitute such suspension pursuant to such direction or consent as to each Tract of unitized lands.

(d) Each lease, sublease, or contract relating to the exploration, drilling, development or operation for oil and gas 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) 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.

(f) 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. 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 term 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 improved recovery operations on any part of the lands embraced in such lease, then the same as to all lands embraced therein shall remain in full force and effect so long as such operations are diligently prosecuted, and if they result in the production of oil or gas, said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as oil or gas in paying quantities is being produced from any portion of said lands.

(g) The segregation of any Federal lease committed to this Agreement is governed by the following provision in the fourth paragraph of Section 17 (j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960, (74 Stat. 781-784): "Any (Federal) lease heretofore or hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the Effective Date of unitization; provided, however, that any such lease as to the non-unitized portion shall continue in force and effect for the term

thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in Paying Quantities."

Section 22. 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 subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, or acceptable photostatic or certified copy of the recorded instrument or transfer; and no assignment or transfer of any Royalty Interest subject hereto shall be binding upon the Working Interest Owner responsible therefor until the first day of the calendar month after said Working Interest Owner is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument or transfer.

SECTION 23. EFFECTIVE DATE AND TERM. 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 on the first day of the calendar month next following the approval of this Agreement by the Supervisor, the Land Commissioner and the Commission, and the filing of this Agreement or notice thereof in the Office of the County Clerk of the County in which the Unit Area is situated.

If this Agreement does not become effective on or before January 1, 1976, it 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 owning a combined Phase I Participation of at least eighty percent (80%), and at least seventy-five percent (75%) of such Working Interest committed to this Agreement have decided to extend said expiration date for a period not to exceed six months (hereinafter called "extended expiration date"). If said expiration date is so extended and this Agreement does not become effective on or before said extended expiration date, it shall ipso facto expire on said extended expiration date and thereafter be of no further force or effect.

Unit Operator shall file for record within thirty (30) days after the Effective Date of this Agreement, in the office where a counter part 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.

The term of this Agreement shall be for and during the time that Unitized Substances are produced from the unitized land and so long thereafter as drilling, reworking or other operations (including secondary recovery operations) are prosecuted thereon without cessation of more than ninety (90) consecutive days unless sooner terminated as herein provided.

This Agreement may be terminated with the approval of the Land Commissioner and the Supervisor by Working Interest Owners owning eighty percent (80%) of the Unit Participation then in effect whenever such Working Interest Owners determine that Unit Operations are no longer profitable, or in the interest of conservation. Upon approval, such termination shall be effective as of the first day of the month after said Working Interest Owners' determination. Notice of any such termination shall be filed by Unit Operator in the office of the County Clerk of Chaves County, New Mexico, within thirty (30) days of the effective date of termination.

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 just as if this Agreement had never been entered into.

If not otherwise provided by the leases unitized under this Agreement, Royalty Owners hereby grant Working Interest Owners a period of six 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.

SECTION 24. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. All production and the disposal thereof shall be in conformity with allocations and quotas made or fixed by any duly authorized person or regulatory body under any Federal or State statute. The Director is 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 to alter or modify the quantity and rate of production under this Agreement, 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; provided, further, 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 Land Commissioner and as to any lands of the State of New Mexico or privately-owned lands subject to this Agreement or to the quantity and rate of production from such lands in the absence of specific written approval thereof by the Commission.

Powers in this Section vested in the Director shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen (15) days from notice, and thereafter subject to administrative appeal before becoming final.

SECTION 25. NONDISCRIMINATION. Unit Operator in connection with the performance of work under this Agreement relating to leases of the United States agrees to comply with the clauses set forth in Exhibit "D" attached hereto and made a part hereof.



SECTION 26. APPEARANCES. Unit Operator shall have the right to appear for or on behalf of any interests affected hereby before the Land Commissioner, the Department, and the Commission, and to appeal from any order issued under the rules and regulations of the Land Commissioner, the Department or the Commission, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Land Commissioner, the Department or the Commission or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his or its own expense to be heard in any such proceeding.

SECTION 27. NOTICES. All notices, demands, objections or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if made in writing and personally delivered to the party or parties or sent by postpaid certified or registered mail, addressed to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party or parties may have furnished in writing to the party sending the notice, demand or statement.

SECTION 28. 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 wherein said Unitized Lands are located, 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 covenants that it will not resort to any action to partition the unitized land or the Unit Equipment.

SECTION 29. EQUIPMENT AND FACILITIES NOT FIXTURES ATTACHED TO REALTY. Each Working Interest Owner has heretofore placed and used on its Tract or Tracts committed to this Agreement various well and lease equipment and other property, equipment and facilities. It is also recognized that additional equipment and facilities may hereafter be placed and used upon the Unitized Land as now or hereafter constituted. Therefore, for all purposes of this Agreement any such equipment shall be considered to be personal property and not fixtures attached to realty. Accordingly, said well and lease equipment and personal property is hereby severed from the mineral estates affected by this Agreement, and it is agreed that any such equipment and personal property shall be and remain personal property of the Working Interest Owners for all purposes.

SECTION 30. UNAVOIDABLE DELAY. All obligations under this Agreement requiring the Unit Operator to commence or continue improved recovery operations or to operate on or produce Unitized Substances from any of the lands covered by this Agreement 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 or municipal law or agency, unavoidable accident, 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.

SECTION 31. LOSS OF TITLE. In the event title to any 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 Agreement, such Tract shall be automatically regarded as not committed hereto as of the first day of the calendar month in which the failure of title 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 or Federal land or leases, no payments 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 Land Commissioner and/or the Supervisor (as the case may be), 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.

SECTION 32. NONJOINDER AND SUBSEQUENT JOINDER. Joinder by any Royalty Owner, at any time, must be accompanied by appropriate joinder of the corresponding Working Interest Owner in order for the interest of such Royalty Owner to be regarded as effectively committed. Joinder to this Agreement by a Working Interest Owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement in order for such interest to be regarded as effectively committed to this Agreement.

Any oil or gas interest in the Unitized Formations not committed hereto prior to submission of this Agreement to the Land Commissioner and the Supervisor for final approval may thereafter be committed hereto upon compliance with the applicable provisions of this Section and of Section 14 (Tracts Qualified for Participation) hereof, at any time up to the effective date hereof on the same basis of participation as provided in said Section 14, by the owner or owners thereof subscribing, ratifying, or consenting in writing to this Agreement and, if the interest is a Working Interest, by the owner of such interest subscribing also to the Unit Operating Agreement.

It is understood and agreed, however, that from and after the Effective Date hereof the right of subsequent Joinder as provided in this Section shall be subject to such requirements or approvals and on such basis as may be agreed upon by Working Interest Owners owning not less than sixty-five percent (65%) of the Unit Participation then in effect,

and approved by the Land Commissioner and Supervisor. Such subsequent joinder by a proposed Working Interest Owner must be evidenced by his execution or ratification of this Agreement and the Unit Operating Agreement and, where State or Federal land is involved, such Joinder must be approved by the Land Commissioner or Supervisor. Such Joinder by a proposed Royalty Owner must be evidenced by his execution, ratification or consent of this Agreement and must be consented to in writing by the Working Interest Owner responsible for the payment of any benefits that may accrue hereunder in behalf of such proposed Royalty Owner. Except as may be otherwise herein provided, subsequent joinder to this Agreement shall be effective as of the first day of the month following the filing with the Land Commissioner and the Supervisor of duly executed counterparts of any and all documents necessary to establish effective commitment of any Tract or interest to this Agreement, unless objection to such joinder by the Land Commissioner or the Supervisor is duly made sixty (60) days after such filing.

SECTION 33. COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties and 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 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 land within the above described Unit Area.

SECTION 34. 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 owned or controlled by such party; provided, that if the party is the owner of a Working Interest, he must also execute the Unit Operating Agreement.

SECTION 35. 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 therefor 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 or to the State of New Mexico, nor to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

SECTION 36. 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.

SECTION 37. PRODUCTION AS OF THE EFFECTIVE DATE. Unit Operator shall make a proper and timely gauge of all leases and other tanks within the Unitized Area in order to ascertain the amount of merchantable oil above the pipe line connection in such tanks as of the effective date hereof. All such oil which has then been produced in accordance with established allowables shall be and remain the property of the Working Interest Owner entitled thereto, the same as if the unit had not been formed; and the responsible Working Interest Owner shall promptly remove said oil from the Unitized Land. Any such oil not so removed shall be sold by Unit Operator for the account of such Working Interest Owners, subject to the payment of all Royalty to Royalty Owners under the terms hereof. 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 Effective Date hereof.

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 over-production has been sold or otherwise disposed of, such over-production 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.

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

BURK ROYALTY CO.  
Unit Operator and Working Interest Owner

BY: \_\_\_\_\_  
Vice-President

800 Oil & Gas Building  
Wichita Falls, Texas 76301

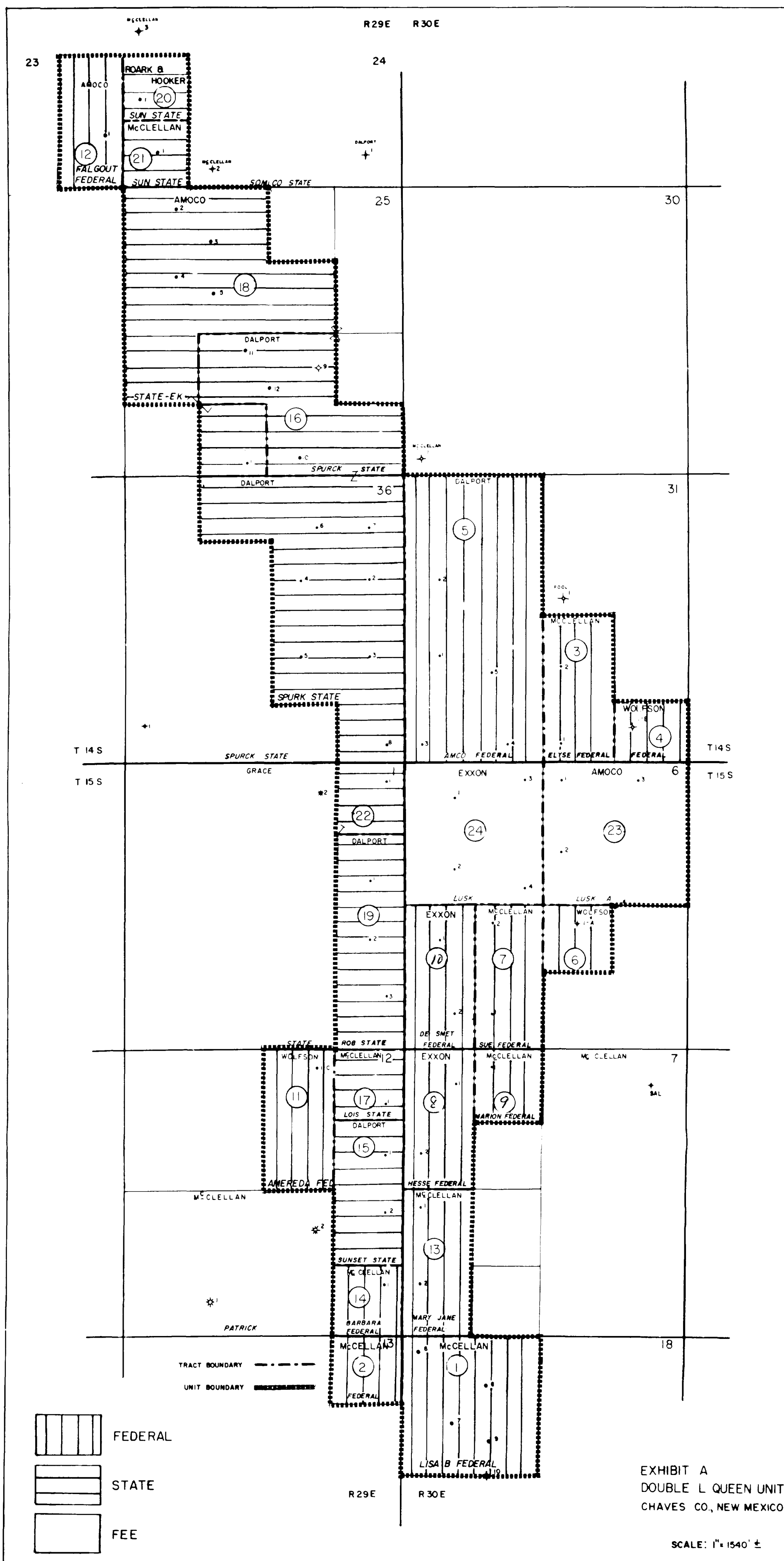
STATE OF TEXAS     )  
                                  SS:  
COUNTY OF WICHITA )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 1975, by \_\_\_\_\_, Vice-President for Burk Royalty Co., a Texas corporation, on behalf of said corporation.

\_\_\_\_\_  
Notary Public in and for  
County, Texas.

My Commission expires:

\_\_\_\_\_













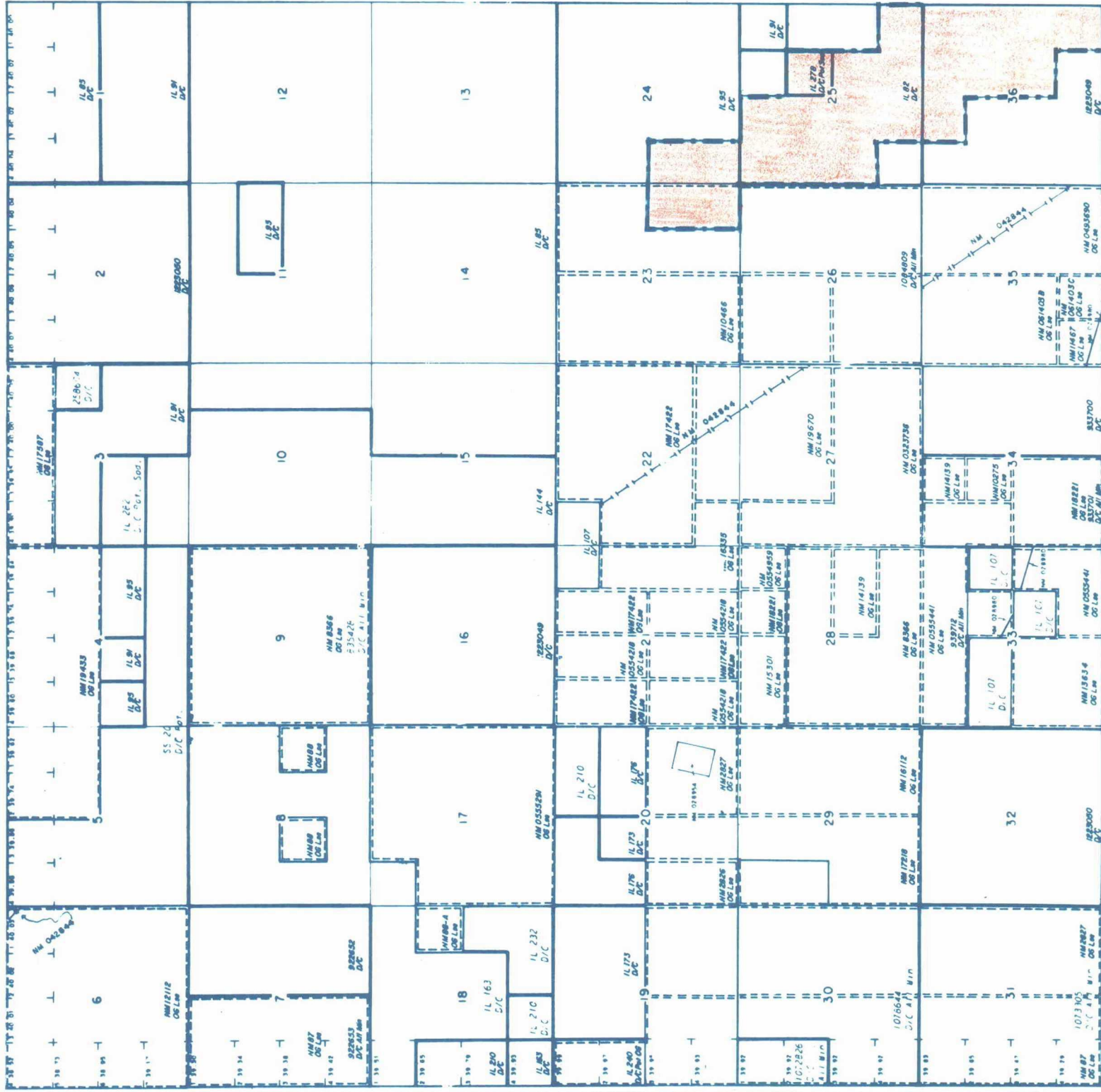


TOWNSHIP 14 SOUTH, RANGE 29 EAST, OF THE NEW MEXICO PRIN. MERIDIAN, NEW MEXICO

CHAVES COUNTY - 005

STATUS OF PUBLIC DOMAIN  
LAND AND MINERAL TITLES

OG PLAT



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26	IL 110 D/C	11-11-1978
27	IL 111 D/C	11-11-1978
28	IL 112 D/C	11-11-1978
29	IL 113 D/C	11-11-1978
30	IL 114 D/C	11-11-1978
31	IL 115 D/C	11-11-1978
32	IL 116 D/C	11-11-1978
33	IL 117 D/C	11-11-1978
34	IL 118 D/C	11-11-1978
35	IL 119 D/C	11-11-1978
36	IL 120 D/C	11-11-1978

SECTION 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36

SECTION 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36



DOUBLE L QUEEN UNIT  
Chaves County, New Mexico

TRACT LOCATOR KEY  
Exhibit A Supplement

<u>Tract</u>	<u>Section In Which Located</u>
1	18 T-15-S R-30-E
2	13 T-15-S R-29-E
3	31 T-14-S R-30-E
4	31 T-14-S R-30-E
5	31 T-14-S R-30-E
6	6 T-15-S R-30-E
7	6 T-15-S R-30-E
8	7 T-15-S R-30-E
9	7 T-15-S R-30-E
10	6 T-15-S R-30-E
11	12 T-15-S R-29-E
12	23 T-14-S R-29-E
13	7 T-15-S R-30-E
14	12 T-15-S R-29-E
15	12 T-15-S R-29-E
16	36 T-14-S R-29-E
17	12 T-15-S R-29-E
18	25 T-14-S R-29-E
19	1 T-15-S R-29-E
20	24 T-14-S R-29-E
21	24 T-14-S R-29-E
22	1 T-15-S R-29-E
23	6 T-15-S R-30-E
24	6 T-15-S R-30-E

EXHIBIT "B"  
To Unit Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date Of Lease	Basic Royalty		Lessee of Record	Overriding Royalty		Working Interest		
				Ownership and Percentage	Percentage		Owner and Percentage	Percentage	Owner and Percentage	Percentage	
Federal Land											
1	T-15-S, R-30-E, Sec. 18; Lot 1, 2, E 1/2 NW 1/4 (Lisa B Federal)	160.77	NM-17114 Segregated out of LC-069280 7/1/59 HBP	USA	12.50%	L. C. Harris 1/4 J. Penrod Toles 1/6 Robert L. Graham 1/6 Robert Patterson 1/6 Albert J. Black 1/8 Jack McClellan 1/8	Henry R. Wilson 3.0468% William J. Schnedar .0677% John Schnedar .0677% Jeanne S. Kunko .0677% Texaco, Inc. 3.0000%	McClellan Oil Corporation 12.50% L. C. Harris 25.00% J. Penrod Toles 16.67% Robert M. Patterson 16.67% Robert L. Graham 16.66% Albert J. Black 12.50%			
2	T-15-S, R-29-E, Sec. 13; NE/4 NE/4	40.00	NM-17114 Segregated out of LC-069280-B 7/1/59 HBP	USA	12.50%	L. C. Harris 1/4 J. Penrod Toles 1/6 Robert L. Graham 1/6 Robert Patterson 1/6 Albert J. Black 1/8 Jack McClellan 1/8	Henry R. Wilson 3.0468% William J. Schnedar .0677% John Schnedar .0677% Jeanne S. Kunko .0677% Texaco, Inc. 3.0000%	McClellan Oil Corporation 12.50% L. C. Harris 25.00% J. Penrod Toles 16.67% Robert M. Patterson 16.67% Robert L. Graham 16.66% Albert J. Black 12.50%			
3	T-14-S, R-30-E, Sec. 31; W/2 SE/4 (Elyse Federal)	80.00	NM-0199070-A 11/1/71 HBP	USA	12.50%	Amerada Hess Corporation	Amoco 4.0000% Amerada BPO 6.2500% APO 8.5000%	McClellan Oil Corporation 12.50% Abby Corporation 25.00% J. Penrod Toles 16.67% Robert L. Graham 16.66% Albert J. Black 12.50%			
4	T-14-S, R-30-E, Sec. 31; SE/4 SE/4	40.00	NM-0199070-A 11/1/71 HBP	USA,	12.50%	Amerada Hess Corporation	Wolfson Oil Co.	Wolfson Oil Co. 100.00%			

EXHIBIT "B"  
To Unit Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date Of Lease	Basic Royalty		Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage
				Ownership and Percentage	Lessee of Record		
5	T-14-S, R-30-E, Sec. 31; W/2 (Amoco-Federal Lse.)	314.20	NM-0199070-B 11/1/71 HBP	USA	12.50% Dalport Oil Corp. Burk Royalty Co.	Amoco Oil Corp. Leon M. Lampert	5.0000% Dalport Oil Corp. 1.2500% Burk Royalty Co.
6	T-15-S, R-30-E, Sec. 6; NW/4 SE/4	40.00	NM-0199827-A	USA	100.00% Amerada-Hess Corp.	Charles P. Kimpel	3.0000% Wolfson Oil Co. 100.00%
7	T-15-S, R-30-E, Sec. 6; E/2 SW/4 (Sue Federal)	80.00	NM-0199827-A 11/1/71 HBP	USA	12.50% Amerada-Hess Corp.	E. G. McNeil R. Walter/Zealand Kaibab Corp. Charles P. Kimpel Amerada Hess BPO APO	.3333% McClellan Oil Corporation .2500% L. C. Harris .6666% J. Penrod Toles .7500% Robert M. Patterson 6.2500% Robert L. Graham 9.5000% Albert J. Black
8	T-15-S, R-30-E, Lots 1 & 2, Sec. 7; (Hesse Federal)	78.92	USA-0306551 9/1/72 HBP	USA	12.50% Exxon Corporation	R.E.S. Hesse, etux Hazel M. Hesse C. E. Strange, etux Sherrie R. Strange	1.5000% Exxon 1.5000%
9	T-15-S, R-30-E, Sec. 7; SE/4 NW/4 (Marlon Federal)	40.00	NM-0306551 9/1/72 HBP	USA	12.50% Exxon Corporation	R.E.S. Hesse Humble C. E. Strange	1.5000% McClellan Oil Corporation 6.2500% L. C. Harris 12.5000% J. Penrod Toles 1.5000% Robert M. Patterson Robert L. Graham Albert J. Black
							12.50% 25.00% 16.66% 16.67% 16.67% 12.50%

EXHIBIT "B"  
To Unit Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date Of Lease	Basic Royalty Ownership and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage
10	T-15-S, R-30-E, Sec. 6; Lots 6 & 7 (DeSmet Federal)	78.47	NM-0317354 6/1/72	USA	12.50% Exxon Corporation	Thelma F. DeSmet & Richard P. DeSmet	Exxon 100.00%
11	T-15-S, R-29-E, Sec. 12; W/2 NE/4 (Amerada Federal)	80.00	NM-0390243	USA	100.00% Amerada-Hess Corp.	None	Wolfson Oil Co. 100.00%
12	T-14-S, R-29-E, Sec. 23; E/2 SE/4 (Joseph W. Falgout)	80.00	NM-0493690 1/1/74	USA	12.50% Amoco Production Co.	Joseph J. Falgout Lester E. Kabacoff Edgar B. Stern, Jr. Phillip B. Stern	Amoco Production Co. 100.00%
13	T-15-S, R-30-E, Sec. 7; Lots 3 & 4 (Mary Jane Federal)	79.08	NM-3287 10/1/77	USA	12.50% L. C. Harris J. Penrod Toles 1/6 Robert L. Graham 1/6 Robert Patterson 1/6 Albert J. Black 1/8 Jack McClellan 1/8	D. O. Keon, etux	McClellan Oil Corporation 12.50% L. C. Harris 25.00% J. Penrod Toles 16.67% Robert M. Patterson 16.67% Robert L. Graham 16.66% Albert J. Black 12.50%
14	T-15-S, R-29-E, Sec. 12; SE/4 SE/4 (Barbara Federal)	40.00	NM-3613 11/1/77	USA	12.50% L. C. Harris J. Penrod Toles 1/6 Robert L. Graham 1/6 Robert Patterson 1/6 Albert J. Black 1/8 Jack McClellan 1/8	Thomas G. Slanker, Jr., Etux Consuelo M. Johnstone Laron P. Martin Mrs. Mercedes M. Martin	McClellan Oil Corporation 12.50% L. C. Harris 25.00% J. Penrod Toles 16.66% Robert M. Patterson 16.67% Robert L. Graham 16.67% Albert J. Black 12.50%

Total 14 Federal Tracts ----- 1231.44 acres or 46.12% of Unit Area

EXHIBIT "B"  
To Unit Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date Of Lease	Basic Royalty Ownership and Percentage	Lessee of Record		Overriding Royalty Owner and Percentage		Working Interest Owner & Percentage		
State Land											
15	T-15-S, R-29-E, Sec. 12; SE/4 NE/4, NE/4 SE/4, C.S. (Sunset-State)	80.00	B-10417-10 7/6/43 HBP	State of New Mexico-12.50%	Crown Central Petroleum Corp.	Leon M. Lampert, Trustee	1.0000%	Dalport Oil Corp. Burk Royalty Co. Crown Central Petroleum Corp. Walters Amusements, Inc.	37.50% 37.50% 12.50% 12.50%		
16	T-14-S, R-29-E; Sec. 25; NE/4 SW/4, NW/4 SE/4 S/2 SE/4, C.S. (Spurch-State)	480.00	B-10418-78 7/6/53 HBP	State of New Mexico-12.50%	Dalport Oil Corp.	Vada Spurck	6.2500%	Dalport Oil Corp. Burk Royalty Co.	37.50% 62.50%		
Section 36: NE/4 NW/4, NE/4 N/2 SE/4, SE/4 SE/4, C. S. (Spurck State)											
17	T-15-S, R-29-E, Sec. 12; NE/4 NE/4 C.S. (Lois State)	40.01	K-4988-1 5/18/75 HBP	State of New Mexico-12.50%	Humble Oil & Refining Co.	Humble	12.5000%	McClellan Oil Corporation J. Penrod Toles Robert M. Patterson Robert L. Graham	75.00% 8.34% 8.33% 8.33%		
18	T-14-S, R-29-E, Sec. 25; NW/4, SW/4 NE/4 NW/4 SW/4, SE/4 SW/4 (State "EK")	280.00	K-5652-2 1/18/76 HBP	State of New Mexico-12.50% Co.	Amoco Production Co.	Ben B. & Mabelle E. Ginsberg W.G. Smith, Jr. Audrey C. Smith C. E. Dorsey	2.5000% .6250% .6250% 1.2500%	Amoco Production Co.	100.00%		

EXHIBIT "B"  
To Unit Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date Of Lease	Basic Royalty Ownership and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage
19	T-15-S, R-29-E, Sec. 1; SE/4 NE/4, E/2 SE/4 C. S. (Rob)	120.00	K-6647 1-17-77 HBP	State of New Mexico-12.50%	R. G. McPheron	Robt. L. Summers 3.1250% Margaret McPheron 1.5625% Robt. Lee McPheron .7812% Collen G. McPheron .7812% Wallace Leon M. Lampert, 1.0000% Trustee	Dalport Oil Corporation 50.00% Burk Royalty Co. 50.00%
20	T-14-S, R-29-E, Sec. 24; NW/4 SW/4, C. S. (Sun State)	40.00	K-6772-1 12-1-81 HBP	State of New Mexico-12.50%	Sun Oil Company	Sun Oil Company 15.0000%	Roark & Hooker 87.50% J. C. Monk 12.50%
21	T-14-S, R-29-E, Sec. 24; SW/4 SW/4, C. S. (Sun State)	40.00	K-6772-1 12-1-81 HBP	State of New Mexico-12.50%	Sun Oil Company	Sun Oil Company 6.2500%	McClellan Oil Corporation 12.50% Wall Street Oil Corp. 12.50% W. W. La Force, Jr. 25.00% Tom Schneider 12.50% A. N. Norwood 12.50% George Eng 6.25% Alan Q. Norwood 6.25% W. B. Perry, Jr. 3.1250% Charles H. Juni 3.1250% Wallace G. Comer 3.1250% Warren D. Barton 1.5625% G. W. Green 1.5625%



EXHIBIT "B"  
To Unit Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date Of Lease	Basic Royalty Ownership and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage
22	T-15-S, R-29-E, Sec. 1, NE/4 NE/4	40.01	K-4321 8/18/74	State of New Mexico-12.50%	Covine Grace	None	Covine Grace 100.00%

Total 8 State Tracts ----- 1121.02 acres or 41.95% of Unit Area

Fee Land

23	T-15-S, R-30-E, Sec. 6; Lots 1 & 2 S/2 NE/4 (Florence B. Lusk)	160.53	Fee 12/8/72	HBP	Florence B. Lusk 3.12500 Donald Winston, Trustee .39222 Roy G. Barton, Jr. .78458 Roy G. Barton, Sr. .78458 R. W. Brown .86795 R. C. Beveridge .53675 James R. Roop .39229 Brenda Ann Moran .92905	Pan American Petro. Corp.	None	Amoco Production Co. 100.00%
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EXHIBIT "B"  
To Unit Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date Of Lease	Basic Royalty		Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage
				Ownership and Percentage	Lessee of Record		
23	cont'd.			K. D. McPeters .39229			
				A. T. Williamson .39229			
				Howell Spear .29422			
				Marshall Brothers Ltd.			
				.39229			
				Marshall and Winston, Inc.			
				.78458			
				W. Bryce Duggar .19615			
				T. T. Sanders, Jr. .19615			
				Ann W. Marshall .19615			
				Investors Royalty Co., Inc.			
				1.35305			
				Cleo Hendricks Duggar			
				.19614			
				Ellie Spear .29422			
				16.50000			

EXHIBIT "B"  
To Unit Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date Of Lease	Basic Royalty Ownership and Percentage		Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage
				Percentage	Percentage			
24	T-15-S; R-30-E, Sec. 6; Lots 3, 4, & 5 SE/4 NW/4 (Lusk)	158.11	Fee 4/16/75	HBP		Roy G. Barton Exxon .784585 Roy G. Barton, Jr. .784585 R. C. Beveridge .536754 R. W. Brown .867947 Cleo Hendricks Duggar .1961 W. Bryce Duggar .196146 Investors Royalty Company, Inc. 1.353016 Florence B. Lusk 3.125000 K. D. McPeters .392292 Marshall Brothers, Ltd. .392292 Marshall & Winston, Inc. .784585	None	Exxon 100.00%

EXHIBIT "B"  
To Unit Agreement  
DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

Tract No.	Description of Land	No. of Acres	Serial No. & Expiration Date Of Lease	Basic Royalty Ownership and Percentage	Lessee of Record	Overriding Royalty Owner and Percentage	Working Interest Owner and Percentage
24	cont'd.			Ann W. Marshall .196146 Brenda Ann Moran .929046 James R. Roop .392292 T. T. Sanders, Jr. .196146 Ellie Spear .294219 Howell Spear .294219 A. T. Williamson .392292 Donald Winston, Tr. under Agreement with Francisca S. Winston dated Dec. 31, 1941 .392292 12.500000			

Total 2 Fee Tracts ----- 318.64 acres of 11.93% of Unit Area

RECAP

Federal	Tracts 1-14 or 14 Tracts	-----	1231.44 acres or 46.12 percent of Unit Area
State	Tracts 15-22 or 8 Tracts	-----	1120.02 acres or 41.95 percent of Unit Area
Fee	Tracts 23-24 or 2 Tracts	-----	318.64 acres or 11.93 percent of Unit Area

EXHIBIT "C"  
To Unit Agreement

DOUBLE L QUEEN UNIT  
Chaves County, New Mexico  
January 1, 1975

<u>TRACT NO.</u>	<u>TRACT PARTICIPATION %</u>	
	<u>PHASE I</u>	<u>PHASE II</u>
1	12.6690	6.4884
2		.0221
3	5.6500	4.1909
4		.0468
5	12.5500	15.2155
6		.0293
7	1.1075	2.4652
8	1.9930	2.6103
9		.0113
10	2.6295	3.9260
11	.8525	.3653
12	.5370	.7526
13	5.0365	3.6226
14	1.2240	.8407
15	7.6425	6.2666
16	9.3795	16.1292
17	4.1205	2.9144
18	10.4685	5.9534
19	4.1805	5.1212
20	2.6420	1.0481
21	1.3290	1.6549
22	.6425	1.2343
23	1.8435	4.3769
24	<u>13.5025</u>	<u>14.7140</u>
	100.0000	100.0000

PROVISIONS OF SECTION 202 OF  
EXECUTIVE ORDER 11246

EXHIBIT "D"  
To Unit Agreement  
Double "L" Queen Unit  
Chaves County, New Mexico  
January 1, 1974

"(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

"(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

"(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

"(4) The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

"(5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

"(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by Law.

"(7) The contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of Sept. 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States."

Contractor shall also abide by the regulations of Executive Order 11598, Occupational Safety and Health Act and by Executive Order 11640, Veterans Hire Regulation, which orders are inserted herein by reference.

PROPOSED  
DOUBLE L QUEEN FIELD UNIT  
CHAVES COUNTY, NEW MEXICO

SECOND EDITION ENGINEERING COMMITTEE REPORT  
OCTOBER 1, 1973

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CURVE PRODUCTION HISTORY AND ESTIMATE	
MAP NO. 1	- Location Map Chaves County
2	- Lease Map & Tentative Pattern
3	- Isopach Map



PROPOSED DOUBLE L QUEEN FIELD  
CHAVES COUNTY, NEW MEXICO

INTRODUCTION

The Double L Queen Field is located in Township 14 and 15 South and Range 29 and 30 East which is 15 miles north of Loco Hills in southeastern Chaves County, New Mexico.

Production from the field was first secured in April 1969 from Dalport's Spurck State Lease. The field developed rapidly thereafter with peak production reached in August 1970 with a monthly average of 1439 barrels per day. Production as of November 1972 averaged 606 barrels per day and cumulative production as of 12/1/72 is 1,123,912 barrels. There have been eleven dry holes drilled during the process of outlining the field and there are presently 55 wells in the field usable for flood purposes.

Completion practices did not vary widely from well to well in the field. Most wells were completed by setting either 4 1/2 or 5 1/2 inch casing through the formation and cementing. The casing then being perforated for completion and sandfraced with an average of some 20,000 gallons of treating fluid and 25,000 pounds of sand.

Crude oil is approximately 36.5<sup>0</sup> API and proceeds to the producer at this time are approximately \$3.77 per barrel after deducting taxes. The purchaser is Navajo Refining Co.

There are approximately 2790.27 surface acres in the properties being considered for inclusion in the flood.

First, discussion toward unitization was had at an operators meeting held June 9, 1970 in Dallas and efforts to unitize have continued since that time, the last meeting being held in Midland on September 12, 1973.

## SUMMARY &amp; CONCLUSIONS

The engineering committee anticipates that:

- (1) Secondary oil can be produced at a ratio of 1.14 to that of estimated ultimate primary which would yield approximately 1,865,000 barrels of additional oil.
- (2) The life of the flood would extend over a period of approximately 10 years.
- (3) A total profit of \$4,701,501 before Federal Income Taxes would be gathered over the life of the flood.
- (4) An effort to unitize the field should be made using an acceptable formula including a portion of the enclosed parameters.
- (5) Continued operation on a primary basis would result in remaining profits before Federal Income Taxes of \$658,455 before reaching the economic limit.

## SECONDARY RESERVES

The nearest Queen Sand flood is that of the Sulimar field which is directly south of this property and operated by Jack McClellan. The Sulimar flood is relatively new as water injection was started in January of 1972. The lowest production rate obtained from the Sulimar area was approximately 3900 barrels in February 1972 and has increased to an indicated monthly rate of 11500 barrels over the first few days of November, 1972. Premature water breakthrough has not been a problem. The purpose of the above is to indicate that floodable Queen Sand is located in the immediate vicinity of the proposed Double L Unit. It is, of course, well known that there have been many successful Queen Sand floods over a portion of New Mexico and Western Texas.

Secondary reserves and associated water requirements have been calculated in the following manner.

### BASIC DATA:

55 wells on 40 acre spacing, 2,200 proration acres.  
 Volume = 10,077 acre feet. (V) Average  $t$  = 4.16 feet  
 Porosity = .21 ( $\phi$ )  
 Connate water = .35 ( $S_w$ , estimated from Sulimar report)  
 Initial reservoir pressure = 730 psi @ D = 1,950 feet  
 $Bo_i$  = 1.13 Vol/Vol  $Bo$  flood start = 1.07 Vol/Vol (200 psi)  
 $R_t$  = 94° F (estimated at 80' / °F)  
 Crude Gravity = 34° API  
 Primary Recovery (Decline Curve) = 1.470 MMB

### PORE VOLUME

$V_p$  = 7,758 .V.  $\phi$   
 $V_p$  = 7,758 10,077 .21 = 16.417 MMB

ORIGINAL OIL IN PLACE

$$N = V_p(1-S_w)/Bo_i = 16.417 (1-.35)/1.13 = 9.444 \text{ MMB}$$

PRIMARY RECOVERY EFFICIENCY - Percent of oil in place

$$E_p = N_p/100N = 1.470/9.444 = 15.56\%$$

REMAINING PRIMARY RECOVERY, 9-1-72

$$\text{Ultimate Primary} = 1,470 \text{ M Bbl}$$

$$\text{Cumulative 12-1-72} = \underline{1,124}$$

$$\text{Remaining Primary} = 346$$

OIL SATURATION AT FLOOD START

Assume water injection starts at pr = 200 psi on 1-1-74 with cumulative recovery = 1.277 MMB.

$$S_{os} = \frac{(N-N_p)}{V_p} \quad Bo = \frac{(9.444 - 1.277)}{16.417} \quad 1.07 = .532$$

GAS SATURATION AT FLOOD START

$$S_g = 1 - S_{os} - S_w = 1 - .532 - .350 = .118$$

THEORETICAL FILL UP VOLUME

$$W_f = S_g \cdot V_p = .118 \cdot 16.417 = 1.937 \text{ MMB}$$

Assume 50% of injection is effective requirement = 3.874 MMB

INJECTION RATE

From Sulimar Pool experience average injection rate is assumed to be 300 B/D/well during fill-up.

FILL-UP TIME

For 25 injection well depletion plan injection volume = 225. MB/month  
 $T = 3.874/225 = 17.2$  months after start of full scale injection.  
 (Use 18 mo. @ 7,000 B/D)

WATERFLOOD RECOVERY - From Flood Start

Caprock Queen residual oil after flooding was 58.6% Vphc

Assume floodable portion of Double "L" is same.

$$S_{or} = .586 \cdot (1-S_w) = .38$$

$$H_f = V_{pc} (S_{os} - S_{or}) / Bo$$

$V_{pc}$  = pore volume contacted by flood.

$V_{pc}$  = 80% of total pore volume from preliminary examination of injection pattern.

$$N_f = 16,417 (.80) (.532 - .380) / 1.07$$

$$N_f = 1.865 \text{ MB}$$

SECONDARY RECOVERY

$$N_s = N_f - N_p \text{ (remaining)}$$

$$N_s = 1,865 - (1,470 - 1,277) = 1,672 \text{ MB}$$

ULTIMATE RECOVERY: RECOVERY FACTOR

$$N_u = 1,672 + 1,470 = 3,142 \text{ MB (1430 B/ac or 311.8 B/acft)}$$

$$\text{Recovery Factor} = 1.672/1.470 = 1.14 \text{ Secondary/Primary}$$

PEAK RATE

With an "effective" injection of 125 MB/month the peak producing rate is expected to be about 25% of injection rate or 30 MB/Mo. This is 75% of the 40 MB/Mo. primary producing rate experienced and is considered reasonable. (Average for 28 wells = 35.7 B/well/day)

WATER REQUIREMENT

Total water injected is expected to be 0.8 pore volume or 13 million barrels. Raw water necessary for fill-up is expected to be 3.874 MMB and oil replacement at twice the produced volume will be 3.4 MMB for a total of 7.3 MMB.

## ECONOMICS

The economic analysis which follows has been determined using figures which are thought reasonable for the depth and area.

### OPERATING COSTS

Average Operating Costs are expected to be \$2,500/well/year, including district level overhead.

Raw water required for fill-up and make-up is estimated to cost 2.75¢/ barrel.

Handling of produced and make-up water is estimated to cost 0.5¢/barrel (Includes plant operating expense)

Workover Cost at \$500/well/year - first 3 years.

### INVESTMENTS - FLOOD INSTALLATION

Well conversion expense @ \$2,000/well, 25 wells	=	\$50,000
Water Plant - designed to handle 7,500 B/D	=	37,500
Injection Lines & System, \$2,500/well, 25 wells	=	62,500
Water Return System. 5 miles @ \$10,000/mile	=	50,000
Relocate Batteries & Consolidate \$3,000/prod. well	=	<u>75,000</u>
		\$275,000

### ECONOMIC LIMIT OF OPERATIONS

#### SECONDARY

During the final stages of operation the operated wells will decline, however, equally compensating increase in lifting cost is assumed. The economic limit of operation is considered to be 3 Bbl./Well/Day for 50 wells.

#### PRIMARY

Economic limit is considered to be 3 Bbl./Well/Day with 50 wells operating.

ECONOMIC ANALYSIS - WATERFLOOD, Unit Effective 1-1-74

Oil Price = \$4.05/Bbl. Gas Price 10.5¢/MCF

Production Tax - Oil = 28¢/Barrel ; Gas = .060 \$/\$ Gross

INCOME:

Gross Oil	1,865.0 MB	@ \$4.05	=	\$7,553,250
Gross Gas	3,431.0 MMCF	@ 10.5¢	=	360,255
Total				<u>7,913,505</u>
Net Income After .125 Royalty			=	6,924,316
Less Production Tax (Oil & Gas)			=	<u>543,815</u>
Total WI Income				\$ 6,380,501

EXPENSE:

Investment	\$275,000	
Workover	78,000	
Well Operation	1,060,000	
Water Cost	201,000	
Water Handling	65,000	
		<u>\$1,679,000</u>
Profit BFIT		\$4,701,501

ECONOMIC ANALYSIS - Remaining Primary (From 1-1-74)INCOME:

Gross Oil	193.0 MB	@ \$4.05	\$ 781,650
Gross Gas	2,402.0 MMCF	@ 10.5¢	<u>252,210</u>
Total			1,033,860
Net Income After .125 Royalty			904,627
Less Production Tax (Oil & Gas)			<u>69,172</u>
Total W.I. Income			\$ 835,455

EXPENSE

Well Operation	\$ 177,000
Profit BFIT	\$ 658,455



DOUBLE "L" QUEEN FIELD  
UNITIZED - SECONDARY RECOVERY

YEAR	OIL MB	GAS MMCF	WELLS OPERATED	OPERATING EXPENSE \$M			WORKOVERS	TOTAL	TANG \$M	INSTANG \$M
				WELL OPERATION	RAW WATER	PRODUCED WATER				
1974	101.9	1,019	52	130.0	68.8	0.5	32.0	231.3	155.0	120.0
1975	288.5	967	52	130.0	66.0	2.5	26.0	224.5		
1976	360.0	360	52	130.0	22.3	5.5	20.0	177.8		
1977	312.0	312	50	125.0	16.5	6.5		148.0		
1978	240.0	240	48	120.0	11.0	8.0		139.0		
1979	180.0	180	46	115.0	8.2	9.0		132.2		
1980	138.0	126	40	100.0	5.5	9.0		114.5		
1981	104.4	102	36	90.0	2.7	9.0		101.7		
1982	79.2	75	35	87.5	0	9.0		96.5		
1983	<u>61.0</u>	<u>50</u>	13	<u>32.5</u>	<u>0</u>	<u>6.0</u>		<u>38.5</u>		
	1,865.0	3,431		1,060.0	201.0	65.0		1,404.0	155.0	120.0

INVESTMENT \$M

	<u>Tang</u>	<u>Intang</u>
Well Conversions	50.0	--
Water Plant	37.5	--
Injection Lines	37.5	25.0
Produced Water Return	30.0	20.0
Battery Relocation	<u>      </u>	<u>75.0</u>
	155.0	120.0

DOUBLE "L" QUEEN  
CONTINUED PRIMARY

<u>YEAR</u>	<u>OIL MB</u>	<u>GAS MCF</u>	<u>WELLS OPERATED</u>	<u>OPERATING EXPENSE (\$M)</u>
1974	120.0	1494.0	50	125.0
1975	<u>73.0</u>	<u>908.0</u>	50	<u>52.0</u>
	193.0	2402.0		177.0

PARAMETERS  
DOUBLE L QUEEN FIELD  
CHAVES COUNTY, NEW MEXICO

	CUMULATIVE PRODUCTION 12/1/72	PERCENT CUM. PRODUCTION	6/1-12/1/72 PERIOD PRODUCTION	PERCENT PERIOD PRODUCTION	REMAINING PRIMARY	PERCENT REMAINING PRIMARY	ULTIMATE PRIMARY
Amoco Production Co.							
Falgout A	1,673	.149	323	288	1,000	.288	2,673
Lusk A	61,133	5.439	3,083	2,740	4,016	1.158	65,149
State EK	73,368	6.528	11,391	10,125	33,180	9.566	106,548
	<u>136,174</u>	<u>12.116</u>	<u>14,797</u>	<u>13,153</u>	<u>38,196</u>	<u>11.012</u>	<u>174,370</u>
Dalport							
Amco Federal	171,057	15.220	12,503	11,114	50,000	14.416	221,057
Rob	48,785	4.341	5,145	4,573	13,400	3.863	62,185
Spurck State	170,602	15.179	10,598	9,420	31,250	9.010	201,852
Sunset State	66,899	5.952	5,279	4,692	35,940	10.362	102,839
	<u>457,343</u>	<u>40.692</u>	<u>33,525</u>	<u>29,799</u>	<u>130,590</u>	<u>37.651</u>	<u>587,933</u>
Exxon							
De Smet Fed.	45,532	4.052	3,453	3,069	8,500	2.451	54,032
Hesse Federal	32,865	2.924	2,759	2,452	5,700	1.643	38,565
Florence Lusk	168,247	14.970	14,056	12,494	52,000	14.992	220,247
	<u>246,644</u>	<u>21.946</u>	<u>20,268</u>	<u>18,015</u>	<u>66,200</u>	<u>19.086</u>	<u>312,844</u>
Jack McClellan							
Elyse	56,901	5.063	5,751	5,112	23,000	6.631	79,901
Lois State	35,660	3.173	4,620	4,107	14,800	4.267	50,460
Lisa B. Federal	65,087	5.791	16,310	14,497	39,600	11.417	104,687
Sun State	17,781	1.582	2,150	1,911	3,100	.894	20,881
Sue Federal	28,089	2.499	1,722	1,531	2,500	.721	30,589
Barbara Federal	7,304	.650	1,068	949	3,700	1.067	11,004
Marion	--	--	--	--	--	--	--
Mary Jane Fed.	46,375	4.126	7,130	6,338	14,740	4.250	61,115
	<u>257,197</u>	<u>22.884</u>	<u>38,751</u>	<u>34,445</u>	<u>101,440</u>	<u>29.247</u>	<u>358,637</u>
Wolfson							
Amerada Fed.	4,109	.365	1,005	893	1,300	.375	5,409
Roark & Hooker							
Sun State	9,886	.880	3,569	3,172	8,120	2.341	18,006
Corrine Grace							
State	12,559	1.117	588	523	1,000	.288	13,559
TOTALS	1,123,912	100.000	112,503	100,000	346,846	100.000	1,470,758

PARAMETERS  
DOUBLE L QUEEN FIELD  
(CONTINUED)

	PERCENT ULTIMATE PRIMARY	NO. WELLS USEABLE	PERCENT WELLS USEABLE	NO. WELLS PRORATION SCHEDULE	ACRE FEET	PERCENT ACRE FEET
Amoco Production Co.						
Falgout A	.182	1	1.818	1	146.2	1.450
Lusk A	4.430	3	5.454	2	434.5	4.312
State EK	7.244	5	9.092	5	441.0	4.376
	<u>11.856</u>		<u>16.364</u>		<u>1,021.7</u>	<u>10.138</u>
Dalport						
Amco Federal	15.030	5	9.092	5	1,556.1	15.442
Rob	4.228	3	5.454	3	626.1	6.213
Spurck State	13.724	11	20.000	9	1,921.6	19.069
Sunset State	6.992	2	3.636	2	542.2	5.380
	<u>39.974</u>		<u>38,182</u>		<u>4,646.0</u>	<u>46.104</u>
Humble						
De Smet Fed.	3.674	2	3.636	1	426.7	4.234
Hesse Federal	2.622	2	3.636	1	261.6	2.596
Florence Lusk	14.975	4	7.274	4	1,450.6	14.395
	<u>21.271</u>		<u>14.546</u>		<u>2,138.9</u>	<u>21.225</u>
Jack McClellan						
Elyse	5.433	2	3.636	2	269.4	2.673
Lois State	3.431	1	1.818	1	230.1	2.283
Lisa B. Federal	7.118	4	7.274	4	576.4	5.719
Sun State	1.420	1	1.818	1	195.7	1.942
Sue Federal	2.080	2	3.636	2	295.9	2.936
Barbara Federal	.748	1	1.818	1	96.1	.954
Marion	--	1	1.818	0	2.5	.025
Mary Jane Fed.	4.155	2	3.636	2	299.5	2.972
Section 13					4.9	.049
	<u>24.385</u>		<u>25.454</u>		<u>1,970.5</u>	<u>19.553</u>
Wolfson						
Amerada Fed.	.368	1	1.818	1	36.5	.362
Section 31					10.5	.104
Section 6					6.5	.065
					<u>53.5</u>	<u>.531</u>
Roark & Hooker						
Sun State	1.224	1	1.818	1	83.9	.833
Corrine Grace						
State	.922	1	1.818	1	162.8	1.616
	<u>100.000</u>	<u>55</u>	<u>100.000</u>	<u>49</u>	<u>10,077.3</u>	<u>100.000</u>
TOTALS:						

PARAMETERS  
DOUBLE L QUEEN FIELD  
( CONTINUED)

	6 MONTHS PERIOD <u>TOTAL INCOME</u>	PERCENT <u>PERIOD INCOME</u>
Amoco Production Co.		
Falgout A	\$3,268.36	\$ 0.786
Lusk A	10,517.86	2.529
State EK	<u>47,293.47</u>	<u>11.371</u>
	61,079.69	14.686
Dalport		
Amco Federal	44,435.34	10.684
Rob	18,705.45	4.498
Spurck State	40,548.01	9.749
Sunset State	<u>20,475.05</u>	<u>4.923</u>
	124,163.85	29.854
Humble		
De Smet Fed.	11,676.29	2.808
Hesse Federal	9,744.13	2.343
Florence Lusk	<u>49,963.44</u>	<u>12.013</u>
	71,383.86	17.164
Jack McClellan		
Elyse	19,416.87	4.669
Lois State	16,529.63	3.974
Lisa B. Federal	57,896.57	13.921
Sun State	7,338.03	1.764
Sue Federal	6,213.24	1.494
Barbara Federal	5,741.76	1.381
Marion	--	--
Mary Jane Fed.	<u>24,216.32</u>	<u>5.823</u>
	137,352.42	33.026
Wolfson		
Amerada Fed.	5,532.60	1.330
Roark & Hooker		
Sun State	12,239.60	2.943
Corrine Grace		
State	4,148.16	0.997
TOTALS:	415,900.18	100.000

## GEOLOGY

The Queen Sand which is Permian in Geologic Age is encountered in this field at a depth of approximately 1950 feet. The field is a large stratigraphic trap caused by loss of porosity and permeability updip to the west, forming a concave-eastward pinchout line. This field is a terrace with southeast dip of 40' to 60' per mile. A gas-oil contact is at +1937, and GOR's have increased along this contact due to the large gas cap. This gas contains 60-65% nitrogen.

The oil-water contact is erratic and tilts down to the north. In the southern part of the field, water is at +1915, but in the northeastern portion of the field it is at +1895. No effective water drive has been determined for the field, as the drive mechanism is due to expansion of the gas cap and solution gas. Updip and downdip margins of the field are delineated by loss of porosity.

The pay is gray-brown, fine-grained to very fine-grained, fairly well sorted, subrounded quartz sand. Average core data is as follows:

Net pay (over 5 md) 6.2'	Oil Saturation 17.3%
Porosity 21.0%	SW Saturation 42.7%
Permeability 121 md	Formation Vol. Factor 1.2

Thickest pay is found in the SW 1/4 Sec. 31, 14S-30E, NW 1/4 Sec. 6, 15S-30E, the east-central portion of Sec. 12, 15S-29E, and NW 1/4 Sec. 18, 15S - 30E.

From Gamma Ray Neutron logs accurate net pay thickness is hard to determine as the Queen interval is characterized by two different sands. One is a non-productive "red" sand which is not permeable. The productive sand is "gray" and it is hard to differentiate between the two without cores or an accurate sample analysis. All available information

was used to determine net sand to the best ability of those concerned.

## WATER AVAILABILITY

It appears that the only readily available water supply is that furnished by Double Eagle Corporation of New Mexico. This company has laid a line into the Sulimar field and is furnishing water for that flood. It is understood that Sulimar is paying 2.75¢ for the water delivered to one central point and this is the figure used for the economic analysis. The general manager of Double Eagle was recently contacted and indicated that extra capacity should be available for the Double L Flood. The Double L flood should require more water over the life of the flood than Sulimar and it might be possible to negotiate a better price.



## FLOOD PATTERN

A map is included which indicates possible injection wells. It will be necessary to surround the field with wells in order to establish a proper drive especially in view of the fact the gas cap to the West will have to be blocked. The wells shown are tentative as final determination will be made at a later date.

DOUBLE L QUEEN FIELD  
CHAVES CO. NEW MEXICO  
PRODUCTION HISTORY & ESTIMATE

