

UNIT AGREEMENT
CHAVEROO SAN ANDRES UNIT
COUNTIES OF ROOSEVELT & CHAVES
STATE OF NEW MEXICO

BEFORE EXAMINER STOGNER OIL CONSERVATION DIVISION <i>El Ran</i> EXHIBIT NO. <i>2</i> CASE NO. <i>935749358</i>

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CHAVEROO SAN ANDRES UNIT
ROOSEVELT & CHAVES COUNTIES, NEW MEXICO

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UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE
CHAUVEROO SAN ANDRES UNIT
ROOSEVELT AND CHAVES COUNTIES, NEW MEXICO

THIS AGREEMENT, entered into as of the 1st day of November, 1987, by and between the parties subscribing, ratifying, or consenting hereto, and herein referred to as the "parties hereto,"

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty, or other oil and 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. Secs. 181 et seq., authorizes Federal lessees and their representative to unite with each other, or jointly or separately with others, in collectively adopting and operating a cooperative or 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 resource thereof whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the Oil Conservation Division of the State of New Mexico (hereinafter referred to as the "Division") is authorized by an Act of the Legislature (Chapter 72, law of 1935 as amended; Chapter 70, Article 2, Section 2 et seq., New Mexico Statutes 1978 Annotated) to approve this Agreement and the conservation provisions hereof; and

WHEREAS, the parties hereto hold sufficient interest in the Unit Area covering the land hereinafter described to give reasonably effective control of operations therein; and

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

NOW, THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this Agreement their respective interest in 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 or 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 1,200.00 acres, more or less, in Roosevelt and Chaves Counties, New Mexico.

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

(c) "Division" is defined as the Oil Conservation Division of the Department of Energy and Minerals of the State of New Mexico.

(d) "Director" is defined as the Director of the Bureau of Land Management for the State of New Mexico or any person authorized to act on the Director's behalf.

(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) "Authorized Officer (AO)" is defined as any employee of the Bureau of Land Management who has been delegated the authority to perform the duties described in this Part.

(h) "Unitized Formation" shall mean that subsurface portion of the Unit Area commonly known as the San Andres formation, and which is the same formation that was encountered between the logged depths of 4177' (subsea elevation of +313) and 4676' (subsea elevation of +420') in the Roberts Well #1 as shown on the Nuclear Log of said well dated October 25, 1978 which well is located 440' FNL and 1980' FEL of Section 3, T-8-S, R-32-E, NMPM, 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, other than outside substances, 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 "B" 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 other than a Working Interest in or right to receive a portion of the Unitized Substances or the proceeds thereof and includes the royalty interest reserved by the lessor or by an oil and gas lease and any overriding royalty interest, oil payment interest, net profit contracts, or any other payment or burden 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, Chaveroo San Andres Unit, Roosevelt and Chaves Counties, 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 hereof.

(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, and 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 by Working Interest Owners or Unit Operator pursuant to this Agreement and the Unit Operating Agreement for or on account of Unit Operations.

SECTION 3. EXHIBITS. The following exhibits are incorporated herein by reference: 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 shown 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, and Tract Participation of each Tract. 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 "C" attached hereto is the provisions of paragraphs 1 through 7 of Section 202 of Executive Order 11246. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes render such revision necessary or when requested by the AO, and not less than two copies shall be filed with the AO.

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 Owners' meeting or otherwise) if at least three Working Interest Owners having in the aggregate eighty percent (80%) Unit Participation then in effect have agreed to inclusion of such Tract or Tracts in the Unit Area, then 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 AO, 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 expiration of said thirty (30) day period as set out in (2) immediately above with the AO 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 operator's response thereto.

The expansion shall, after due consideration of all pertinent information and approval by the AO, 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. EL RAN, INC. 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 refer to the Unit Operator as the owner of a Working Interest when such an interest is owned by it. Unit Operator shall have a lien upon interests of Working Interest Owners in the Unit Area 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, and the AO 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, upon default or failure in the performance of its duties and obligations hereunder, be subject to removal by Working Interest Owners having in the aggregate the majority interest of 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 AO.

In all such instances of effective resignation or removal, until a successor to Unit Operator is selected and approved as hereinafter provided, 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 used 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. 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 AO. If no successor Unit Operator or Unit Manager is selected and qualified as herein provided, the Director, at his election, may declare this Agreement terminated.

In selecting a successor Unit Operator, the affirmative vote of the majority Working Interest Owners of the total Unit Participation shall prevail. 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 majority of the Working Interest Owners of the Unit Participation remaining after excluding the Unit Participation of the Unit Operator so removed.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. Costs and expenses incurred by Unit Operator and 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 AO 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 AO, and the Division, inject into the Unitized Formation, through any well or wells completed therein, brine, water, air, gas, oil, liquified 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 geological 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 AO and the Division concurrently with the filing of this Unit Agreement for final approval. Said initial plan of operations and all revisions thereof shall be as complete and adequate as the AO, and the Division may determine to be necessary for timely operation consistent herewith. Upon approval of this Agreement and the initial plan by the AO, 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 operations. 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 Unit Operations for the secondary recovery of Unitized Substances from the Unit Area within eighteen (18) months after the effective date of this Agreement, or any extension thereof approved by the AO, 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, and such payments shall be considered as items of Unit Expense to be borne by all Working Interest Owners of lands subject hereto.

SECTION 13. TRACT PARTICIPATION. In Exhibit "B" 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 Unit Operations if all Tracts in the Unit Area qualify as provided herein. The Tract Participation of each Tract as shown in Exhibit "B" was determined in accordance with the following formula:

Tract Participation	=	20% A	+	80% B
Where	A	=	Percent of Total Acreage in Unit	
	B	=	Percent of Total Ultimate Primary Oil Recovery in Unit Area.	

In the event less than all Tracts are qualified on the Effective Date hereof, the Tract Participation shall be calculated on the basis of all such qualified Tracts rather than all Tracts in the Unit Area.

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 road 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) the Working Interest Owner who operates the Tract and at least seventy-five percent (75%) of all other Working Interest Owners in such Tract have joined in a request for the inclusion of such Tract, and as to which (2) owners of seventy five percent (75%) of the combined Unit Participation in all Tracts that meet the requirements of Section 14(a) above have voted in favor of the inclusion of such tract.

(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) the Working Interest Owner who operates the Tract and a total of seventy-five percent (75%) or more of the other Working Interest Owners in such Tract who have become parties to this Agreement have joined in a request for inclusion of such Tract, and have executed and delivered, or obligated themselves to execute and deliver an indemnity agreement indemnifying and agreeing to hold harmless the other owners of committed Working Interests, 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; and as to which (2) the owners of seventy-five percent (75%) 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, 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 AO, 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 forth in Section 13 (Tract Participation) above. This schedule of participation shall be revised Exhibit "B" and upon approval thereof by the AO, 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 AO.

SECTION 15A. 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 AO) shall be apportioned among and allocated to the qualified tracts in accordance with the respective tract participations effective hereunder during the respective schedule of participation in Exhibit "B." 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 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.

SECTION 15B. TAKING UNITIZED SUBSTANCES IN KIND. 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 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 so 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 "B," upon approval by the AO, shall govern the allocation of production on and after the effective date thereof until a revised schedule is approved as hereinabove provided.

If the Unit Area is enlarged, the revised Tract Participations of the Tracts which were within the Unit Area prior to the enlargement shall remain in the same ratio one to another.

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 AO, 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 Operator or as otherwise may be consented to or prescribed by the AO 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 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 the 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 on 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 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 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 the 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 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 and the AO, is hereby empowered to enter into a borderline 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 and 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 shall and by his approval hereof, or by the approval hereof by his duly authorized representatives, do hereby establish, alter, change or revoke the drilling, producing, rental, minimum Royalty and Royalty requirements of Federal leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement.

Without limiting the generality of the foregoing, all leases, subleases and contracts are particularly modified in accordance with the following:

(a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each 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 Secretary, or his 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) 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 nonunitized 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 AO and the Division.

If this Agreement does not become effective on or before June 1, 1988, 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 Participation of at least eighty percent (80%); and at least seventy-five percent (75%) of such Working Interest Owners committed to this Agreement have decided to extend said expiration date for a period not to exceed one (1) year (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 and effect.

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

The terms 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 and other operations (including improved 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 AO 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 Roosevelt and Chaves Counties, 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 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 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 Division.

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 "C" 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 Department and the Division, and to appeal from any order issued under the rules and regulations of the Department or the Division, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Department or the Division 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 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, 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 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 Federal land or leases, no payments of funds due the United States of America shall be withheld, but such funds shall be deposited as directed by the AO, 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. NONJOINER AND SUBSEQUENT JOINER. 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 AO 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 AO. 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 Federal land is involved, such Joinder must be approved by the AO. 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 AO 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 AO 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 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 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 obligation 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 land in order to ascertain the amount of merchantable oil above the pipeline 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 Interest Owner entitled thereto, the same as if the unit has 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.

SECTION 38. NO SHARING OF MARKET. This Agreement is not intended to provide and shall not be construed to provide, directly or indirectly, for any cooperative refining, joint sale or marketing of Unitized Substances.

EXECUTED this 1st day of February, 1988.

ATTEST:

"UNIT OPERATOR"

EL RAN, INC.

By:

Robert R. Ranck

William W. Ranck

WORKING INTEREST OWNERS

ROYALTY INTEREST OWNERS

THE STATE OF _____

COUNTY OF _____

This instrument was acknowledged before me on the _____
day of _____, 1988, by _____.

Notary Public, State of Texas

My Commission Expires _____

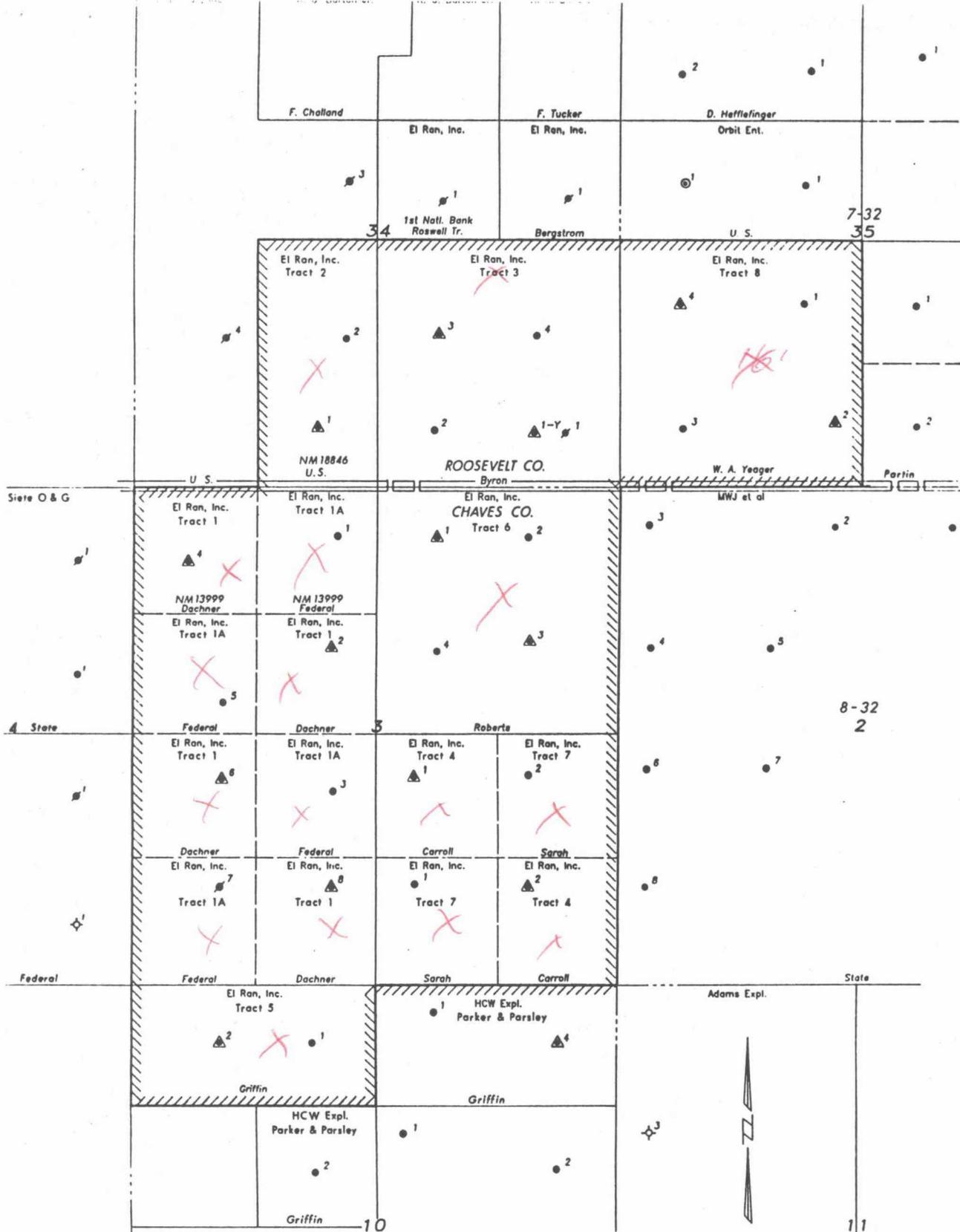
THE STATE OF _____

COUNTY OF _____

This instrument was acknowledged before me on the _____
day of _____, 1988, by _____,
_____, of _____, a
_____ corporation, on behalf of said corporation.

Notary Public, State of Texas

My Commission Expires _____



Tract 1 = 160.06
 1A = 160.02
 2 = 80
 3 = 160.00
 4 = 80
 5 = 80
 6 = 159.92
 7 = 80
 8 = 160

EL RAN, INC.
 CHAVEROO SAN ANDRES UNIT
 CHAVES & ROOSEVELT COUNTY, NEW MEXICO

— SURVEY AREA MAP —

EXHIBIT "A"
 JANUARY 29, 1988

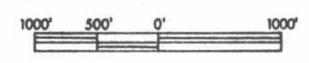


EXHIBIT 'B': EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

Tract	Lease Name, Description of Land, Number of Acres and County	Serial Number & Expiration date	Lessee of Record	Basic Royalty & Percentage	Royalty Owners and Overriding Royalty Owners	Royalty Interest & ORRI Percentage of Ownership	Working Interest Ownership	Working Interest Percentage of Ownership
1	Dachner Lease 160.06 acres SE/4 & Lot 4 of NW/4 and SE/4 & NW/4 of SW/4 of Section 3, Township 8 South Range 32 East, NMPN Survey, Chaves County, New Mexico	NM-13999 Held by production	Campbell H. Elkins - 50% W. W. Ranck - 50%	U.S.A. 0.12500000	Mildred F. Dachner/ORRI Susan Dawson/ORRI Robert R. Ranck/ORRI	0.00250000 0.04750000 0.01000000 0.06000000	Arthur Randy Barbara Edwards C. H. Elkins Estate Clyde Elkins Craig Mc Donald Dr. W. H. Gordon, Sr. I. W. Briscoe James G. Morris James M. Evans Joe A. Rudberg Joe W. Gray Joe J. Reynolds L. D. Prater Robert Ranck Robert W. Rose	0.03125000 0.01562500 0.37500000 0.09375000 0.03125000 0.03125000 0.03125000 0.18750000 0.03125000 0.03125000 0.01562500 0.03125000 0.03125000 0.03125000 0.03125000 0.03125000 0.03125000
								1.00000000

EXHIBIT "B": EL RAN, INC. CHAYEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

Tract	Lease Name, Description of Land, Number of Acres and County	Serial Number & Expiration date	Lessee of Record	Basic Royalty & Percentage	Royalty Owners and Overriding Royalty Owners	Royalty Interest & ORRI Percentage of Ownership	Working Interest Ownership	Working Interest Percentage of Ownership
1a	Federal Lease 160.02 acres SW/4 & Lot 3 of NW/4 and SW/4 & NE/4 of SW/4 of Section 3, Township 8 South, Range 32 East, NMPH Survey, Chaves County, New Mexico	NM-13999 Held by Production	Campbell H. Elkins - 50% W. W. Ranck - 50%	U.S.A. 0.12500000	Mildred F. Dachner/ORRI Susan Dawson/ORRI Robert R. Ranck/ORRI W. W. Ranck, Jr./ORRI Ranck Trust/ORRI	0.00250000 0.04750000 0.02500000 0.01000000 0.01000000	C. C. Ranck Trust Dick R. Wegener Giles M. Forbess Nelle Jane Bayless R. C. Ranck Trust Robert Ranck Ruthann Baumgardner Trust Ruth S. Terrell Ruth Samuel Susan Wolf W. W. Ranck W. W. Ranck, Jr. Wegener Enterprises	0.01269531 0.01523437 0.23437500 0.03046875 0.01269531 0.06250000 0.02839063 0.03125000 0.20312500 0.01523437 0.25976563 0.05664063 0.04062500
								1.00000000

EXHIBIT 'B': EL RAN, INC. CHAVEPOO SAN ANDRES UNIT
 LOCATED IN CHAVES & POSSEVELT COUNTY, NEW MEXICO

Tract	Lease Name, Description of Land, Number of Acres and County	Serial Number & Expiration date	Lessee of Record	Basic Royalty & Percentage	Royalty Owners and Overriding Royalty Owners	Royalty Interest & ORRI Percentage of Ownership	Working Interest Ownership	Working Interest Percentage of Ownership
2	U. S. Lease 80 + or - Acres 42 ^{E/2 SW/4} of Section 34, Township 7 South, Range 32 East, NMPH Survey, Roosevelt County, New Mexico	NM-18846 Held by Production	Celsius Energy Co. - 100%	U.S.A. 0.12500000	Celsius Energy Co./ORRI Mitchell Energy Corp./ORRI Howell Spear/ORRI	0.09500000 0.02000000 0.01000000	Benton Oil C. C. Ranck Trust C. H. Elkins Estate Clyde Elkins Dick R. Wegener Gordon Rose James G. Morris Jerome Sharpe Nelle Jane Bayless R. C. Ranck Trust Robert Ranck Ruthann Baumgardner Trust Ruth Samuel Susan Wolf W. W. Ranck W. W. Ranck, Jr. Wegener Enterprises	0.06250000 0.01074218 0.25000000 0.06250000 0.01289062 0.03125000 0.12500000 0.03125000 0.02578124 0.01074218 0.01562500 0.02148438 0.06250000 0.01289062 0.20998438 0.02148438 0.03437500

Total Federal Acreage - 400.08 Acres or 36%								

1.00000000								

EXHIBIT "B": EL RAM, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

Tract	Lease Name, Description of Land, Number of Acres and County	Serial Number & Expiration date	Lessee of Record	Basic Royalty & Percentage	Royalty Owners and Overriding Royalty Owners	Royalty Interest & ORRI Percentage of Ownership	Working Interest Ownership	Working Interest Percentage of Ownership
3	Byron Lease 160 + or - acres SE/4 of Section 34, Township 7 South, Range 32 East, NMPM Survey, Roosevelt County, New Mexico	August 3, 1977 August 29, 1977	Westland Energy Corp. Campbell H. Elkins		Roy G. Barton, Jr./RI Roy G. Barton, Jr./ORRI Norma J. Barton Rebecca J. Benson Robert P. Byron/RI Robert P. Byron/ORRI Norma J. Chanley/RI Norma J. Chanley/ORRI Michael S. Citty DCM Oil & Gas Co. Horseshoe Oil & Gas E. L. Lathan, Jr. James D. McLean/ORRI William G. McPhearson Fred G. Middleton Elba Mikosz/ORRI Robert R. Ranck/ORRI Durwood A. Terrill	0.01983333 0.00187500 0.01275000 0.01888890 0.02125005 0.00375000 0.00708332 0.00187500 0.00141670 0.00944445 0.00944445 0.01133330 0.02000000 0.01133330 0.01888890 0.01000000 0.01000000 0.02083330	C. C. Ranck Trust C. H. Elkins Estate Clyde Elkins Dick P. Wegener James G. Morris KLR Assoc. Nelle Jane Bayless R. C. Ranck Trust Ruthann R. Baumgardner Tr. Susan Wolf W. W. Ranck W. W. Ranck, Jr. Wegener Enterprises	0.00390625 0.46875000 0.14548000 0.00468750 0.23438000 0.08789000 0.00937500 0.00390625 0.00781250 0.00468750 0.00781250 0.00781250 0.01250000 1.00000000
						0.21000000		

EXHIBIT 'B': EL PAN, INC. CHAVECO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

Tract	Lease Name, Description of Land, Number of Acres and County	Serial Number & Expiration date	Lessee of Record	Basic Royalty & Percentage	Royalty Owners and Overriding Royalty Owners	Royalty Interest & ORRI Percentage of Ownership	Working Interest Ownership	Working Interest Percentage of Ownership
4	Carroll Lease 80 + or - acres NW/4 & SE/4 of the SE/4 of Section 3, Township 8 South, Range 32 East, NPM Survey, Chaves County, New Mexico	July 14, 1978 December 6, 1978 January 4, 1979	W. W. Ranck, et al Westland Energy Corp. Campbell H. Elkins		Roy G. Barton, Jr. Norma J. Barton Rebecca J. Benson Robert P. Byron H. D. Carroll & Norma J. Chanley Michael S. Citty Horseshoe Oil & Gas E. L. Latham, Jr. William G. McPhearson Fred G. Middleton Durwood A. Terilli	0.02041666 0.01312500 0.01944440 0.02187505 0.01562500 0.00729166 0.00145830 0.01944440 0.01166670 0.01166670 0.01944440 0.01822920	C. H. Elkins Estate Clyde Elkins Gordon Rose James G. Morris Robert Ranck	0.50000000 0.12500000 0.09375000 0.25000000 0.03125000 ----- 1.00000000
						0.17966751		

EXHIBIT 'B': EL PAN, INC. CHAVEGROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

Tract	Lease Name, Description of Land, Number of Acres and County	Serial Number & Expiration date	Lessee of Record	Basic Royalty & Percentage	Royalty Owners and Overriding Royalty Owners	Royalty Interest & ORRI Percentage of Ownership	Working Interest Ownership	Working Interest Percentage of Ownership
5	Griffin Lease 80 + or - acres N/2 of NW/4 of Section 10, Township 8 South, Range 32 East, NMPN Survey, Chaves County, New Mexico	February 9, 1976	Wilderspin & House, Inc.		Champion Petroleum/ORRI Mary Virginia Griffin Alfred W. Mitchell Kathryn Mitchell Robert L. Mitchell	0.07500000 0.08750000 0.02187500 0.04375000 0.02187500	Arthur Rampy C. C. Ranck Trust Clyde Elkins Dick R. Wegener Giles M. Forbes Gordon Rose James G. Morris Jerome Sharpe Keeney Royalty Trust Nelle Jane Bayless R. C. Ranck Trust Robert Ranck Ruthann Baumgardner Trust Ruth S. Terrell Ruth Samuel Susan Wolf W. W. Ranck W. W. Ranck, Jr. Wegener Enterprises	0.03125000 0.00781250 0.06250000 0.00937500 0.03125000 0.03125000 0.12500000 0.06250000 0.03125000 0.01875000 0.00781250 0.06250000 0.01562500 0.12500000 0.18750000 0.00937500 0.14062500 0.01562500 0.02500000
						0.25000000		1.00000000

EXHIBIT "B": EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

Tract	Lease Name, Description of Land, Number of Acres and County	Serial Number & Expiration date	Lessee of Record	Basic Royalty & Percentage	Royalty Owners and Overriding Royalty Owners	Royalty Interest & OPRRI Percentage of Ownership	Working Interest Ownership	Working Interest Percentage of Ownership
6	Roberts Lease 159.92 acres Lots 1, 2, S/2 NE/4 of Section 3, Township 8 South, Range 32 East, NMPH Survey, Chaves County, New Mexico	July 5, 1974 August 16, 1978	Macdonald Oil Corp. W. W. Ranck		Adobe Resources Corp./OPRI J. E. Boothe Tammie B. Boothe C. H. Elkins Estate Hemus, Inc. Charles Horton Paul & Willine Jones James D. McLean/ORRI Elba Mikosz/ORRI Betty T. Ranck Robert R. Ranck/ORRI Robert R. Ranck/RI Republic National Bank Ramona Curry Roberts Patricia Marie Sanchez Cherie Summers Maicot Theodore Summers	0.02466140 0.00520030 0.00520030 0.00325520 0.00520030 0.00520030 0.02083330 0.01906260 0.00953120 0.00225520 0.02500000 0.00651040 0.07291670 0.00781250 0.00260420 0.00260420 0.00260420	C. C. Ranck Trust Dick R. Wegener Giles M. Forbess Nelle Jane Bayless R. C. Ranck Trust Robert Ranck Ruthann Baumgardner Trust Ruth S. Terrell Ruth Samuel Susan Wolf W. W. Ranck W. W. Ranck, Jr. Wegener Enterprises	0.01464843 0.01757813 0.25000000 0.03515624 0.01454843 0.03125000 0.02929688 0.02500000 0.22500000 0.01757813 0.26367188 0.02929688 0.04667500
						0.22149430		1.00000000

EXHIBIT "B": EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

Tract	Lease Name, Description of Land, Number of Acres and County	Serial Number & Expiration date	Lessee of Record	Basic Royalty & Percentage	Royalty Owners and Overriding Royalty Owners	Royalty Interest & ORRI Percentage of Ownership	Working Interest Ownership	Working Interest Percentage of Ownership
7	Sarah Lease 80 + or - acres NE/4 & SW/4 of SE/4 of Section 3, Township 8 South, Range 32 East, NMPH Survey, Chaves County, New Mexico	November 21, 1978 December 6, 1978 January 4, 1979	W. W. Ranck & Campbell H. Elkins Westland Energy Corp. W. W. Ranck & Campbell H. Elkins		Roy G. Barton, Jr. Norma J. Barton Rebecca J. Benson Robert P. Byron H. D. Carroll & ... Norma J. Chanley Michael S. Citty Horseshoe Oil & Gas E. L. Latham, Jr. William G. McPhearsen Fred G. Middleton Robert R. Ranck/ORRI W. W. Ranck, Jr./ORRI Ranck Trust/ORRI Durwood A. Terrill	0.02041668 0.01312500 0.01944440 0.02187495 0.01562500 0.00729168 0.00145830 0.01944440 0.01166660 0.01166670 0.01944440 0.01000000 0.01000000 0.01000000 0.01822920	C. C. Ranck Trust Dick Pollard Dick R. Wegener Giles M. Forbess Nellie Jane Bayless R. C. Ranck Trust Robert Ranck Ruthann R. Baumgardner Tr. Ruth Samuel Susan Wolf W. W. Ranck W. W. Ranck, Jr. Wegener Enterprises	0.01269530 0.03125000 0.01523438 0.12500000 0.03046675 0.01269530 0.12500000 0.02539063 0.12500000 0.01523438 0.33789063 0.10351563 0.04062500 1.00000000
						0.20968131		

EXHIBIT "B": EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

Tract	Lease Name, Description of Land, Number of Acres and County	Serial Number & Expiration date	Lessee of Record	Basic Royalty & Percentage	Royalty Owners and Overriding Royalty Owners	Royalty Interest & ORRI Percentage of Ownership	Working Interest Ownership	Working Interest Percentage of Ownership
8	Yeager lease 160 + or - acres SW/4 of Section 35, Township 7 South, Range 32 East, NMPN Survey, Roosevelt County, New Mexico	December 4, 1970	Arno R. Dalby		Clem E. George/ORRI John W. Lodewick Laura B. Lodewick Laura Patricia Lodewick Richard B. Lodewick W. W. Ranck/ORRI W. A. & Patsy Yeager	0.02687500 0.01041660 0.03125000 0.01041670 0.01041670 0.02687500 0.09375000	C. C. Ranck Trust C. H. Elkins Estate Dalby Estate Dick R. Wegener Jewel Dalby Benton Trust Nelle Jane Bayless R. C. Ranck Trust Robert Ranck Ruthann R. Baumgardner Tr. Ruth Samuel Susan Wolf W. W. Ranck W. W. Ranck, Jr. Wegener Enterprises	0.01195477 0.48437500 0.32434880 0.00234374 0.01600262 0.00468750 0.01195477 0.02000327 0.00390625 0.04000655 0.00234375 0.05991542 0.01190756 0.00625000

Total Patented Acreage - 719.92 Acres or 64%								

Federal Acreage - 400.06 Acres or 56%								
Patented Acreage - 719.92 Acres or 64%								

Total Unit Acreage - 1,120 Acres								

EXHIBIT "B"/UNIT AGREEMENT: EL RAN, INC. CHAYEROO SAN ANDRES UNIT
 LOCATED IN CHAYES & ROOSEVELT COUNTY, NEW MEXICO

	TRACT 1 DACHNER LEASE	TRACT 1 NET REVENUE INTERESTS	TRACT 1a FEDERAL LEASE	TRACT 1a NET REVENUE INTERESTS	TRACT 2 U. S. LEASE	TRACT 2 NET REVENUE INTERESTS	TRACT 3 BYRON LEASE	TRACT 3 NET REVENUE INTERESTS	TRACT 4 CARROLL LEASE	TRACT 4 NET REVENUE INTERESTS
EL RAN, INC.										
CHAYEROO SAN ANDRES UNIT										
PARTICIPATION FACTORS										

RI & ORRI INTEREST OWNERS:										

ADOBE RESOURCES CORP.										
ROY G. BARTON, JR./RI							0.01983333	0.00511059	0.02041668	0.0013706
ROY G. BARTON, JR./ORRI							0.00187500	0.00048315		
NORMA J. BARTON/RI							0.01275000	0.00328538	0.01312500	0.0008811
REBECCA J. BENSON							0.01888890	0.00486723	0.01944440	0.00130531
J. E. BOOTHE										
TAMMIE B. BOOTHE										
ROBERT P. BYRON/RI							0.02125005	0.00547565	0.02187505	0.00146851
ROBERT P. BYRON/ORRI							0.00375000	0.00096629		
H. D. CARROLL AND ...									0.01562500	0.00104891
CELSIUS ENERGY CO./ORRI						0.09500000				
CHAMPLIN PETROLEUM										
NORMA J. CHANLEY/RI							0.00708332	0.00182521	0.00729168	0.00048951
NORMA J. CHANLEY/ORRI							0.00187500	0.00048315		
MICHAEL S. CITTY							0.00141670	0.00036505	0.00145830	0.00009791
MILDRED F. DACHNER/ORRI	0.00250000	0.00026061	0.00250000	0.00034954						
SUSAN DAWSON/ORRI	0.04750000	0.00495156	0.04750000	0.00664127						
DCM OIL & GAS CO.							0.00944445	0.00243362		
ESTATE/C. H. ELKINS										
CLEM E. GEORGE/ORRI							0.00944445	0.00243362	0.01944440	0.00130535
MARY VIRGINIA GRIFFIN										
HEMUS, INC.										
HORSESHOE OIL & GAS										
CHARLES HORTON										
PAUL & WILLIE JONES										
E. L. LATHAM, JR.							0.01133330	0.00292032	0.01166670	0.00078321
JOHN W. LODEWICK										

EXHIBIT 'B'/UNIT AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

	TRACT 1 DACHNER LEASE	TRACT 1 NET REVENUE INTERESTS	TRACT 1a FEDERAL LEASE	TRACT 1a NET REVENUE INTERESTS	TRACT 2 U. S. LEASE	TRACT 2 NET REVENUE INTERESTS	TRACT 3 BYRON LEASE	TRACT 3 NET REVENUE INTERESTS	TRACT 4 CARROLL LEASE	TRACT 4 NET REVENUE INTERESTS
EL RAN, INC.										
CHAVEROO SAN ANDRES UNIT										
PARTICIPATION FACTORS										

LAURA B. LODEWICK										
LARUA PATRICIA LODEWICK										
RICHARD B. LODEWICK										
JAMES D. MC LEAN/ORRI							0.02000000	0.00515354	0.01166670	0.00078321
WILLIAM G. MC PHERON							0.01133330	0.00292033	0.01944440	0.00130535
FRED G. MIDDLETON							0.01888890	0.00486723		
ELBA MIKOSZ							0.01000000	0.00257677		
MITCHELL ENERGY CORP./ORRI					0.02000000	0.00071284				
ALFRED W. MITCHELL										
KATHRYN MITCHELL										
ROBERT L. MITCHELL										
BETTY T. RANCK										
ROBERT R. RANCK/ORRI	0.01000000	0.00104243	0.02500000	0.00349541			0.01000000	0.00257677		
ROBERT R. RANCK/RI										
W. W. RANCK/ORRI			0.01000000	0.00139816						
W. W. RANCK, JR.			0.01000000	0.00139816						
RANCK TRUST			0.01000000	0.00139816						
REPUBLIC NAT'L BANK										
RANONA CURRY ROBERTS										
PATRICIA MARIE SANCHEZ										
HOWELL SPEAR/ORRI					0.01000000	0.00035642				
DURWOOD A. TERRILL										
UNITED STATES/MINERALS MGMT.	0.12500000	0.01303043	0.12500000	0.01747702	0.12500000	0.00445526	0.02083330	0.00536826	0.01822920	0.00122376
CHERIE SUMMERS WALCOT										
THEODORE SUMMERS										
W. A. & PATSY YEAGER										

TOTAL RI & ORRI OWNERS	0.18500000	0.01928503	0.22000000	0.03075956	0.25000000	0.00891052	0.21000000	0.05411216	0.17968751	0.01206282

EXHIBIT 'B' UNIT AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

	TRACT 5 GRIFFIN LEASE	TRACT 5 NET REVENUE INTERESTS	TRACT 6 ROBERTS LEASE	TRACT 6 NET REVENUE INTERESTS	TRACT 7 SARAH LEASE	TRACT 7 NET REVENUE INTERESTS	TRACT 8 YEAGER LEASE	TRACT 8 NET REVENUE INTERESTS	TOTAL WATERFLOO PARTICIPATION FOR ALL INTERESTS
EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS									

RI & ORRI INTEREST OWNERS:									
ADOBE RESOURCES CORP.			0.02466140	0.00467452	0.02041668	0.00105799			0.00467452
ROY G. BARTON, JR./RI									0.00753921
ROY G. BARTON, JR./ORRI					0.01312500	0.00068013			0.00048314
NORMA J. BARTON/RI					0.01944440	0.00100760			0.00484667
REBECCA J. BENSON			0.00520830	0.00098722					0.00718018
J. E. BOOTHE			0.00520830	0.00098722					0.00098722
TAMMIE B. BOOTHE					0.02187495	0.00113355			0.00807772
ROBERT P. BYRON/RI					0.01562500	0.00080968			0.00096629
ROBERT P. BYRON/ORRI									0.00185862
H. D. CARROLL AND ***									0.00338600
CELSIUS ENERGY CO./ORRI	0.07500000	0.00351547							0.00351547
CHAMPLIN PETROLEUM					0.00729168	0.00037785			0.00269256
NORMA J. CHANLEY/RI					0.00145830	0.00007557			0.00048315
NORMA J. CHANLEY/ORRI									0.00053852
MICHAEL S. CITY									0.00061015
MILDRED F. DACHNER/ORRI									0.01159283
SUSAN DAWSON/ORRI									0.00243366
DCM OIL & GAS CO.			0.00325520	0.00061702					0.00061702
ESTATE/C. H. ELKINS							0.02681500	0.00288230	0.00288230
CLEM E. GEORGE/ORRI	0.08750000	0.00410138							0.00410138
MARY VIRGINIA GRIFFIN									0.00098722
HERMUS, INC.			0.00520830	0.00098722	0.01944440	0.00100760			0.00474657
HORSESHOE OIL & GAS									0.00098722
CHARLES HORTON			0.00520830	0.00098722					0.00394891
PAUL & WILLIAMS JONES			0.02083330	0.00394891	0.01166660	0.00060456			0.00430809
E. L. LATHAM, JR.							0.01041660	0.00111717	0.00111717
JOHN W. LODEWICK									0.00111717

EXHIBIT "B"/UNIT AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

	TRACT 5 GRIFFIN LEASE	TRACT 5 NET REVENUE INTERESTS	TRACT 6 ROBERTS LEASE	TRACT 6 NET REVENUE INTERESTS	TRACT 7 SARAH LEASE	TRACT 7 NET REVENUE INTERESTS	TRACT 8 YEAGER LEASE	TRACT 8 NET REVENUE INTERESTS	TOTAL WATERFLOOD PARTICIPATION FOR ALL INTERESTS
EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS									
LAURA B. LODIEWICK			0.01906260	0.00361328					0.00335152
LARUA PATRICIA LODIEWICK					0.01186670	0.00060456			0.00111778
RICHARD B. LODIEWICK					0.01944440	0.00100760			0.00111778
JAMES D. MC LEAN/ORRI							0.01041670	0.00111778	0.00876682
WILLIAM G. MC PHERON									0.00430810
FRED G. MIDDLETON			0.00953120	0.00160662					0.00718018
ELBA MIKOSZ									0.00438339
MITCHELL ENERGY CORP./ORRI									0.00071284
ALFRED W. MITCHELL	0.02187500	0.00102535							0.00102535
KATHRYN MITCHELL	0.04375000	0.00205059							0.00205059
ROBERT L. MITCHELL	0.02187500	0.00102535							0.00102535
BETTY T. RANCK			0.00325520	0.00061702					0.00061702
ROBERT R. RANCK/ORRI			0.02500000	0.00473870	0.01000000	0.00051820			0.01237151
ROBERT R. RANCK/RI			0.00651040	0.00123403			0.02681500	0.00288230	0.00123403
W. W. RANCK/ORRI									0.00288230
W. W. RANCK, JR.					0.01000000	0.00051820			0.00191636
RANCK TRUST					0.01000000	0.00051820			0.00191636
REPUBLIC NAT'L BANK			0.07291670	0.01382122					0.01382122
RAMONA CURRY ROBERTS			0.00781250	0.00148085					0.00148085
PATRICIA MARIE SANCHEZ			0.00260420	0.00049362					0.00049362
HOWELL SPEAR/ORRI									0.00035642
DURWOOD A. TERRILL					0.01822920	0.00094463			0.00753665
UNITED STATES/MINERALS MGMT.									0.03496271
CHERIE SUMMERS WALCOT			0.00260420	0.00049362					0.00049362
THEODORE SUMMERS									0.00049362
W. A. & PATSY YEAGER							0.09375000	0.01005455	0.01005455
TOTAL RI & ORRI OWNERS	0.25000000	0.01171824	0.22148430	0.04198191	0.20968731	0.01086592	0.21000000	0.02252220	0.21221836

EXHIBIT 'B' / UNIT AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS FEBRUARY 1, 1988	TRACT:	LEASE:	CUMULATIVE		REMAINING PRIMARY		ULTIMATE PRIMARY		AREA		TOTAL PART FACTOR LEASE
			9-1-87 CUMULATIVE PER LEASE	PERCENTAGE	9-1-87 REMAINING PRIMARY PER LEASE	PERCENTAGE	ULTIMATE PRIMARY	PERCENTAGE PER LEASE	AREA PER LEASE	PERCENTAGE PER LEASE	
1	Dachner		92,565	0.09556123	0.00000000	92,565	0.09458998	160	0.14285715		
1a	Federal		136,079	0.14048373	0.00000000	136,079	0.13905591	160	0.14285714		
2	U.S.		26,124	0.02696961	0.00000000	26,124	0.02669550	80	0.07142857		
3	Byron		278,351	0.28736091	1,900	0.19103157	280,251	0.28638186	160	0.14285715	
4	Carroll		64,644	0.06673645	0.00000000	64,644	0.06605817	80	0.07142857		
5	Griffin		31,816	0.03284585	8,046	0.80896843	39,862	0.04073404	80	0.07142857	
6	Roberts		196,913	0.20328686	0.00000000	196,913	0.20122073	160	0.14285714		
7	Sarah		45,913	0.04739915	0.00000000	45,913	0.04691741	80	0.07142857		
8	Yeager		96,241	0.09935621	0.00000000	96,241	0.09834640	160	0.14285714		
TOTALS			968,646	1.00000000	9,946	1.00000000	978,592	1.00000000	1,120	1.00000000	
ALLOCATED PERCENTAGES PER FACTOR:								0.80000000		0.20000000	

EXHIBIT "B"/UNIT AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS FEBRUARY 1, 1988	9-1-87 CUMULATIVE PERCENTAGE PER LEASE	9-1-87 REMAINING PRIMARY	REMAINING PRIMARY PERCENTAGE PER LEASE	ULTIMATE PRIMARY	ULTIMATE PRIMARY PERCENTAGE PER LEASE	AREA PERCENTAGE PER LEASE	TOTAL PARTICIPATION FACTOR PER LEASE
1 Dachner	0.00000000		0.00000000	0.07567198	0.02857143	0.10424341	0.10424341
1a Federal	0.00000000		0.00000000	0.11124473	0.02857143	0.13981616	0.13981616
2 U.S.	0.00000000		0.00000000	0.02135640	0.01428571	0.03564211	0.03564211
3 Byron	0.00000000		0.00000000	0.22910549	0.02857143	0.25767692	0.25767692
4 Carroll	0.00000000		0.00000000	0.05284654	0.01428571	0.06713225	0.06713225
5 Griffin	0.00000000		0.00000000	0.03258723	0.01428572	0.04687295	0.04687295
6 Roberts	0.00000000		0.00000000	0.16097658	0.02857143	0.18954801	0.18954801
7 Sarah	0.00000000		0.00000000	0.03753393	0.01428571	0.05181964	0.05181964
8 Yeager	0.00000000		0.00000000	0.07867712	0.02857143	0.10724855	0.10724855
TOTALS	0.00000000		0.00000000	0.80000000	0.20000000	1.00000000	1.00000000

EXHIBIT C

UNIT AGREEMENT

CHAVEROO SAN ANDRES UNIT
Chaveroo Field
Roosvelt & Chaves Counties, New Mexico

Unit Operator shall comply where applicable with the following clauses contained in 41 CFR:

- 60-1.4(a) (Equal Employment Opportunity);
- 1-12.803-10 (certification of non-segregated facilities);
- 60-250 (employment opportunity for veterans);
- 60-741 (employment opportunities for handicapped individuals);
- 1-1.710 (subcontracting with small business concerns);
- 1-1.805 (subcontracting with labor surplus area concerns);
- 1-1.1310 (subcontracting with minority business enterprises); and
- 1-1.2302-2 (environmental protection).

These clauses are incorporated herein by reference if and to the extent applicable to this contract by law, executive order, or regulation. Unit operator represents that it is in compliance with the reporting requirements of 41 CFR 60-1.7 and the Affirmative Action Program requirements of 41 CFR 60-1.40 and 60-2.

UNIT OPERATING AGREEMENT

CHAVEROO SAN ANDRES UNIT

ROOSEVELT & CHAVES COUNTIES

STATE OF NEW MEXICO

BEFORE EXAMINER STOCKER
OIL CONSERVATION DIVISION
<i>El Ram</i> EXHIBIT NO. <i>3</i>
CASE NO. <i>935749358</i>

UNIT OPERATING AGREEMENT
CHAVEROO SAN ANDRES UNIT
ROOSEVELT COUNTY, NEW MEXICO

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UNIT OPERATING AGREEMENT
CHAVEROO SAN ANDRES UNIT
ROOSEVELT COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the _____ day of _____, 1988, 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.

WITNESSETH

WHEREAS, the parties hereto as Working Interest Owners have executed, as of the date hereof, an Agreement entitled "Unit Agreement, Chaveroo San Andres Unit, Chaves and Roosevelt Counties, 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 1
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. The following exhibits are incorporated herein by reference:
- 2.1.1 Exhibits A, B and C of the Unit Agreement.
 - 2.1.2 Exhibit D attached hereto, is a schedule showing the Unit Participation of each Working Interest Owner. Exhibit D, or a revision thereof, shall not be conclusive as to the information therein, except it may be used as showing the Unit Participations of Working Interest Owners for purposes of this Agreement until shown to be in error or revised as herein authorized.
 - 2.1.3 Exhibit E attached hereto, is the Accounting Procedure applicable to Unit Operations. If there is any conflict between this Agreement and Exhibit E, this Agreement shall govern.
 - 2.1.4 Exhibit F attached hereto, contains insurance provisions applicable to Unit Operations.
- 2.2 Revision of Exhibits. Whenever Exhibit A or B are revised, Exhibit D shall be revised accordingly and be effective as of the same date. Unit Operator shall also revise Exhibit D 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 Recompletion 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 Fifteen Thousand Dollars (\$15,000.00); 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 on 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 the 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 E.
- 3.2.9 Technical Services. The authorizing of charges to the Joint Account for services by consultants of Unit Operator's technical personnel not covered by the overhead charges provided by Exhibit E.
- 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 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. The votes of the majority shall prevail.
- 4.3.2 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.
- 4.3.3 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. EL RAN, INC. 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 reasonable 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 Fifteen Thousand Dollars (\$15,000.00) 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.
- 7.11 Border Agreements. Unit Operator may, after approval by Working Interest Owners, enter into border agreements with respect to lands adjacent to the Unit Area for the purpose of coordinating operations.

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 interest, 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. Any Working Interest Owner dissatisfied with any assessment of its interest in real or personal property shall have the right, at its own expense, and after due notice to the Operator, to protest and resist any such assessment.
- 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 F.

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 by Unit Operator under Section 10.1.2. Such inventory shall include and be limited to those items of equipment considered controllable under Exhibit "E" except, upon determination of Working Interest Owners, items considered uncontrollable 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 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 others thereof and Unit Operator, subject to the approval of Working Interest Owners.
- 10.4 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 Charges to Working Interest Owners. Unit Operator initially shall provide for all Unit Expense in accordance with the provisions of this Article 11. Each Working Interest Owner shall reimburse Unit Operator for its share of Unit Expense in proportion to the respective Unit Participations of the parties hereto. All charges, credits, and accounting for Unit Expense shall be in accordance with Exhibit "E."
- 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 Billing. 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 one 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 Prime +2% 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 or is unable to pay its share of Unit Expense within sixty (60) days after rendition of a statement therefor by Unit Operator, the consenting non-defaulting Working Interest Owners shall, upon request by Unit Operator, pay the unpaid amount as if it were Unit Expense in the proportion that the Unit Participation of each Working Interest Owner bears to the Unit Participation of all such Working Interest Owners. Each Working Interest Owner so paying its share of the unpaid amount shall, to obtain reimbursement thereof, be subrogated to the security rights described in Section 11.5 of this Agreement.
- 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 the 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 Interests. Any overriding royalty, production payment, net proceeds interest, carried interest or any other interest carved out of a Working Interest shall be subject to this Agreement. If a Working Interest Owner does not pay its share of Unit Expense and the proceeds from the sale of Unitized Substances under Article 11.5 are insufficient for that purpose, the security rights provided for therein may be applied against the carved-out interests with which such Working Interest is burdened. In such event, the owner of such carved-out interest shall be subrogated to the security rights granted by Article 11.5.

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 other minerals, from a 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.

12.2 Multiple Completions. No well now or hereafter completed in the unitized formations shall ever be completed as a multiple completion with any other formation unless such multiple completion and the subsequent handling of the multiple completion is approved by Working Interest Owners in accordance with Article 4.3 of this Agreement.

ARTICLE 13
TITLES

13.1 Warranty and Indemnity. Each Working Interest Owner represents and warrants that it is the owner of the respective working interest 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.

ARTICLE 14
LIABILITY, CLAIMS, AND SUITS

- 14.1 Individual Liability. The duties and 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 Ten Thousand Dollars (\$10,000.00) 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 the Unit Operator, and the claim or suit shall be treated as any other claim or suit involving Unit Operations.

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 1.761-1(a). 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 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 certified mail ("return receipt requested") 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 warranty 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 has to 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 in effect. The transferees, in proportion to the respective interest 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 fair salvage value after deducting the estimated cost of salvaging same is less than the withdrawing party's share of estimated cost of plugging and abandoning the wells then being used or held for Unit Operations, then the withdrawing party, as condition precedent to withdrawal, shall pay in cash to the party or parties succeeding to its interest a sum equal to the deficiency. Within sixty (60) days after receiving delivery of the transfer, Unit Operator shall render a final statement to the withdrawing owner for its share of Unit Expense, including any deficiency in salvage value, as determined by Working Interest Owners, incurred as of the first day of the month following the date of receipt of the transfer. Provided all Unit Expense, including any deficiency hereunder, due from the withdrawing owner has been paid in full within thirty (30) days after the rendering of such final statement by the unit Operator, the transfer shall be effective the first day of the month following its receipt by Unit Operator and, as of such effective date, withdrawing owner shall be relieved from all further obligations and liabilities hereunder and under the Unit Agreement, and the rights of the withdrawing Working Interest Owner hereunder and under the Unit Agreement shall cease insofar as they existed by virtue of the interest transferred.
- 17.2 Limitation on Withdrawal. Notwithstanding anything set forth in Section 17.1, Working Interest Owners may refuse to permit the withdrawal of a Working Interest Owner if its Working Interest is burdened by any royalties, overriding royalties, production payments, net proceeds interest, carried interest, or any other interest created out of the Working Interest in excess of one-eighth (1/8) lessor's royalty, unless the other Working Interest Owners willing to accept the assignment agree to accept the Working Interest subject to such burdens.

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 the 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 the 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 EXCISE TAX PROVISIONS

21.1 Crude Oil Excise Tax. For the period during which excise taxes are payable under the Crude Oil Windfall Profit Tax Act of 1980 on any party's Unitized Substances, the first crude oil allocated to any Tract after distribution of any incremental tertiary crude as hereinafter provided shall be the tax tier type of crude oil actually produced or considered to have been produced during the base period under I.R.C. regulations but not to exceed its Tract Participation share or the amount of such tax tier type of crude oil currently available. Any excess of a tax tier type of crude oil existing after the foregoing specific identification allocation shall be allocated to the remaining Tracts in the unit which have an underallocation of crude oil in proportion to the amount of their relative underallocations of crude oil. Anything hereinabove notwithstanding, any incremental tertiary oil as defined under I.R.C. Section 4993 shall be allocated to each

Tract in accordance with its Tract Participation prior to any other allocation of tax tier type of crude oil under this Article 21.1. In no case shall the sum of the different tax tier types of crude oil allocated to any Tract exceed the total amount of crude oil allocable under its Tract Participation.

- 21.2 Amendment by Working Interest Owners. This Article 21 may be amended or deleted by vote of the Working Interest Owners using the voting procedure set out in Article 4.3 of this Operating Agreement if in the opinion of the working Interest Owners (a) application of Article 21 as written becomes unworkable or inequitable as a result of changes in laws or regulations of any governmental agency, or (b) amendment or deletion of this Article 21 is necessary to comply with applicable laws, rules, regulations or orders of any governmental agency having jurisdiction.

ARTICLE 22
EXECUTION

- 22.1 Original, Counterpart, or Other Instruments. 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 such instrument shall have the same effect as if all parties had signed the same instrument.

ARTICLE 23
GOVERNMENTAL REGULATIONS

- 23.1 Governmental Regulations. Working Interest Owners agree to release Unit Operator from any and all losses, damages, injuries, claims and causes of action arising out of, incident to or resulting directly or indirectly from Unit Operator's interpretation or application of rules, regulations or orders of any governmental agency or predecessor agencies to the extent Unit Operator's interpretation or application of such rules, rulings, regulations or orders were made in good faith. Working Interest Owners further agree to reimburse Unit Operator for their proportionate share of any amounts Unit Operator may be required to refund, rebate or pay as a result of an incorrect interpretation or application of the above noted rules, rulings, regulations or orders, together with their proportionate part of interest and penalties owing by Unit Operator as a result of such incorrect interpretation or application of such rules, rulings, regulations or orders.

ARTICLE 24
SUCCESSORS AND ASSIGNS

- 24.1 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.

EXECUTED this 1st day of February, 1988.

ATTEST:

"UNIT OPERATOR"

EL RAN, INC.

Robert R. Ranck

By: _____

William W. Ranck

WORKING INTEREST OWNERS

THE STATE OF _____

COUNTY OF _____

This instrument was acknowledged before me on the _____
day of _____, 1988, by _____.

Notary Public, State of Texas

My Commission Expires _____

THE STATE OF _____

COUNTY OF _____

This instrument was acknowledged before me on the _____
day of _____, 1988, by _____,
_____, of _____, a
_____ corporation, on behalf of said corporation.

Notary Public, State of Texas

My Commission Expires _____

EXHIBIT " E "

Attached to and made a part of Unit Operating Agreement
Chaveroo San Andres Unit
Counties of Roosevelt & Chaves
State of New Mexico dated January 1, 1987

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.

"Joint Account" shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.

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

"Non-Operators" shall mean the parties to this agreement other than the Operator.

"Parties" shall mean Operator and Non-Operators.

"First Level Supervisors" shall mean those employees whose primary function in Joint Operations is the direct supervision of other employees and/or contract labor directly employed on the Joint Property in a field operating capacity.

"Technical Employees" shall mean those employees having special and specific engineering, geological or other professional skills, and whose primary function in Joint Operations is the handling of specific operating conditions and problems for the benefit of the Joint Property.

"Personal Expenses" shall mean travel and other reasonable reimbursable expenses of Operator's employees.

"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. Statement and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of the Joint Account for the preceding month. Such bills will be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits, summarized by appropriate classifications of investment and expense except that items of Controllable Material and unusual charges and credits shall be separately identified and fully described in detail.

3. Advances and Payments by Non-Operators

Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.

Each Non-Operator shall pay its proportion of all bills within fifteen (15) days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the rate of twelve percent (12%) per annum or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator 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 Controllable Material as provided for in Section V.

5. 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 Joint Account 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 adjustments of accounts as provided for in Paragraph 4 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. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator.

6. Approval by Non-Operators

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other sections of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, Operator shall notify all Non-Operators of the Operator's proposal, and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

1. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

2. Labor

- A. (1) Salaries and wages of Operator's field employees directly employed on the Joint Property in the conduct of Joint Operations.
- (2) Salaries of First Level Supervisors in the field.
- (3) Salaries and wages of Technical Employees directly employed on the Joint Property if such charges are excluded from the Overhead rates.
- B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II. Such costs 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. 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 costs chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II.
- D. Personal Expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 2A of this Section II.

3. Employee Benefits

Operator's current costs 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 chargeable to the Joint Account under Paragraphs 2A and 2B of this Section II shall be Operator's actual cost not to exceed twenty per cent (20%).

4. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use and is reasonably practical and consistent with efficient and economical operations. 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, recognized barge terminal, or railway receiving point where like material is normally available, unless agreed to by the Parties.
- 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, recognized barge terminal, or railway receiving point unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by the Parties.
- C. In the application of Subparagraphs A and B above, there shall be no equalization of actual gross trucking cost of \$200 or less excluding accessorial charges.

6. Services

The cost of contract services, equipment and utilities provided by outside sources, except services excluded by Paragraph 9 of Section II and Paragraph 1. ii of Section III. The cost of professional consultant services and contract services of technical personnel directly engaged on the Joint Property if such charges are excluded from the Overhead rates. ~~The cost of professional consultant services or contract services of technical personnel not directly engaged on the Joint Property shall not be charged to the Joint Account unless previously agreed to by the Parties.~~

7. Equipment and Facilities Furnished by Operator

- A. Operator shall charge the Joint Account for use of Operator owned equipment and facilities at rates commensurate with costs of ownership and operation. Such rates shall include costs of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on investment not to exceed eight per cent (8%) per annum. Such rates shall not exceed average commercial rates currently prevailing in the immediate area of the Joint Property.
- B. In lieu of charges in Paragraph 7A above, Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property less 20%. For automotive equipment, Operator may elect to use rates published by the Petroleum Motor Transport Association.

8. 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 other cause, except those resulting from Operator's gross negligence or willful misconduct. Operator shall furnish Non-Operator written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

9. Legal Expense

Expense of handling, investigating and settling litigation or claims, discharging of liens, payment of judgments and amounts paid for settlement of claims incurred in or resulting from operations under the agreement or necessary to protect or recover the Joint Property, except that no charge for services of Operator's legal staff or fees or expense of outside attorneys shall be made unless previously agreed to by the Parties. All other legal expense is considered to be covered by the overhead provisions of Section III unless otherwise agreed to by the Parties, except as provided in Section I, Paragraph 3.

10. 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.

11. Insurance

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Workmen's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

12. 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 in the necessary and proper conduct of the Joint Operations.

III. OVERHEAD**1. Overhead - Drilling and Producing Operations**

i. As compensation for administrative, supervision, office services and warehousing costs, Operator shall charge drilling and producing operations on either:

- (x) Fixed Rate Basis, Paragraph 1A, or
 () Percentage Basis, Paragraph 1B.

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 2A, Section II. 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 the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.

ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property shall () shall not () be covered by the Overhead rates.

A. Overhead - Fixed Rate Basis

(1) Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate \$	<u>3,000</u>
Producing Well Rate \$	<u>300</u>

(2) Application of Overhead - Fixed Rate Basis shall be as follows:

(a) Drilling Well Rate

- [1] Charges for onshore drilling wells shall begin on the date the 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 suspension of drilling operations for fifteen (15) or more consecutive days.
- [2] Charges for offshore drilling wells shall begin on the date when drilling or completion equipment arrives on location and terminate on the date the drilling or completion equipment moves off location or rig is released, whichever occurs first, except that no charge shall be made during suspension of drilling operations for fifteen (15) or more consecutive days.
- [3] Charges for wells undergoing any type of workover or recompletion for a period of five (5) consecutive days or more shall be made at the drilling well rate. Such charges shall be applied for the period from date workover operations, with rig, commence through date of rig release, except that no charge shall be made during suspension of operations for fifteen (15) or more consecutive days.

(b) Producing Well Rates

- [1] An active well either produced or injected into for any portion of the month shall be considered as a one-well charge for the entire month.
 - [2] Each active completion in a multi-completed well in which production is not commingled down hole shall be considered as a one-well charge providing each completion is considered a separate well by the governing regulatory authority.
 - [3] An inactive gas well shut in because of overproduction or failure of purchaser to take the production shall be considered as a one-well charge providing the gas well is directly connected to a permanent sales outlet.
 - [4] A one-well charge may be made for the month in which plugging and abandonment operations are completed on any well.
 - [5] All other inactive wells (including but not limited to inactive wells covered by unit allowable, lease allowable, transferred allowable, etc.) shall not qualify for an overhead charge.
- (3) The well rates shall be adjusted as of the first day of April 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 calendar year preceding as shown by the index of average weekly earnings of Crude Petroleum and Gas Fields Production Workers as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian index as published by Statistics Canada, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

~~B. Overhead - Percentage Basis~~

(1) Operator shall charge the Joint Account at the following rates:

(a) Development

_____ Percent (%) of the cost of Development of the Joint Property exclusive of costs provided under Paragraph 9 of Section II and all salvage credits.

(b) Operating

_____ Percent (%) of the cost of Operating the Joint Property exclusive of costs provided under Paragraphs 1 and 9 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

(2) Application of Overhead - Percentage Basis shall be as follows:

For the purpose of determining charges on a percentage basis under Paragraph 1B of this Section III, development shall include all costs in connection with drilling, re-drilling, deepening or any remedial operations on any or all wells involving the use of drilling crew and equipment; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when the well is not completed as a producer, and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 2 of this Section III. All other costs shall be considered as Operating.

2. Overhead - Major Construction

To compensate Operator for overhead costs incurred in the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, Operator shall either negotiate a rate prior to the beginning of construction, or shall charge the Joint Account for Overhead based on the following rates for any Major Construction project in excess of \$ 100,000 :

- A. 4 % of total costs if such costs are more than \$ 100,000 but less than \$ 200,000 ; plus
 B. 2 % of total costs in excess of \$ 250,000 but less than \$1,000,000; plus
 C. 1 % of total costs in excess of \$1,000,000.

Total cost shall mean the 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 and workover wells shall be excluded.

3. Amendment of Rates

The Overhead rates provided for in this Section III may be amended from time to time only by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. PRICING OF JOINT ACCOUNT MATERIAL PURCHASES, TRANSFERS AND DISPOSITIONS

Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for all material movements affecting the Joint Property. Operator shall provide all Material for use on the Joint Property; however, at Operator's option, such Material may be supplied by the Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, such disposal being made either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus condition A or B Material. The disposal of surplus Controllable Material not purchased by the Operator shall be agreed to by the Parties.

1. Purchases

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. In case of Material found to be defective or returned to vendor for any other reason, credit shall be passed to the Joint Account when adjustment has been received by the Operator.

2. Transfers and Dispositions

Material furnished to the Joint Property and Material transferred from the Joint Property or disposed of by the Operator, unless otherwise agreed to by the Parties, shall be priced on the following bases exclusive of cash discounts:

A. New Material (Condition A)

- (1) Tubular goods, except line pipe, shall be priced at the current new price in effect on date of movement on a maximum carload or barge load weight basis, regardless of quantity transferred, equalized to the lowest published price f.o.b. railway receiving point or recognized barge terminal nearest the Joint Property where such Material is normally available.
- (2) Line Pipe
- ~~(a) Movement of less than 30,000 pounds shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store nearest the Joint Property where such Material is normally available.~~
- ~~(b) Movement of 30,000 pounds or more shall be priced under provisions of tubular goods pricing in Paragraph 2A (1) of this Section IV.~~
- (3) Other Material shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store or f.o.b. railway receiving point nearest the Joint Property where such Material is normally available.

B. Good Used Material (Condition B)

Material in sound and serviceable condition and suitable for reuse without reconditioning:

- (1) Material moved to the Joint Property
 no more than
 (a) At ^{no more than} seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV.
- (2) Material moved from the Joint Property
 (a) At seventy-five percent (75%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as new Material, or

- (b) at sixty-five percent (65%) of current new price, as determined by Paragraph 2A of this Section IV, if Material was originally charged to the Joint Account as good used Material at seventy-five percent (75%) of current new price.

The cost of reconditioning, if any, shall be absorbed by the transferring property.

C. Other Used Material (Condition C and D)

(1) Condition C

Material which is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced ~~at fifty percent (50%)~~ ^{market} of current new price as determined by Paragraph 2A of this Section IV. The cost of reconditioning shall be charged to the receiving property, provided Condition C value plus cost of reconditioning does not exceed Condition B value.

(2) Condition D

All other Material, including junk, shall be priced at a value commensurate with its use or at prevailing prices. 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. Operator may dispose of Condition D Material under procedures normally utilized by the Operator without prior approval of Non-Operators.

D. Obsolete Material

Material which is serviceable and usable for its original function but condition and/or value of such Material is not equivalent to that which would justify a price as provided above may be specially priced as agreed to by the Parties. Such price should result in the Joint Account being charged with the value of the service rendered by such Material.

E. Pricing Conditions

- (1) Loading and unloading costs may be charged to the Joint Account ~~at the rate of fifteen cents (15¢) per hundred weight on all tubular goods movements, in lieu of loading and unloading costs sustained, when actual hauling cost of such tubular goods are equalized under provisions of Paragraph 5 of Section II.~~
- (2) 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 published or listed prices 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 providing such Material, in making it suitable for use, and in moving it to the Joint Property; provided 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 ten 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.

V. INVENTORIES

The Operator shall maintain detailed records of Controllable Material.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, Inventories shall be taken by Operator of the Joint Account Controllable Material. 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.

2. Reconciliation and Adjustment of Inventories

Reconciliation of a physical inventory with the Joint Account shall be made, and a list of overages and shortages shall be furnished to the Non-Operators within six months following the taking of the inventory. Inventory adjustments shall be made by Operator with the Joint Account for overages and shortages, but Operator shall be held accountable 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.

4. Expense of Conducting Periodic Inventories

The expense of conducting periodic Inventories shall not be charged to the Joint Account unless agreed to by the Parties.

EXHIBIT F

UNIT OPERATING AGREEMENT

CHAVEROO SAN ANDRES UNIT
Chaveroo Field
Roosevelt & Chaves Counties, New Mexico

Insurance

The OPERATOR shall carry the following minimum insurance to cover the risks of accident and/or damages to persons and/or property which may occur in the course of operations conducted under this agreement. A proportionate part of the premiums on such insurance, determined on some equitable basis consistent with OPERATOR'S accounting practice, shall be charged to the Joint Account:

1. a) Workers' Compensation - in accordance with the laws of the state or states where such operation contemplated by this agreement are conducted.
- b) Employer's Liability - \$100,000 each accident

2. Comprehensive General Liability -

Bodily Injury - \$300,000 each occurrence
annual - \$300,000 aggregate (where applicable)
Property Damage - \$100,000 each occurrence
- \$100,000 aggregate (where applicable)

This insurance shall provide coverage for the Joint Account created by this agreement, broad form blanket contractual liability, personal injury, inclusion of various working interests as additional insured; blanket waiver of subrogation as required by written contract; independent contractors; products/completed operations; underground resources and equipment; saline hazard; explosion, collapse and underground; and blowout and cratering.

3. Automobile Liability -

Bodily Injury - \$250,000 each person
\$500,000 each occurrence
Property Damage - \$100,000 each occurrence

4. Umbrella Liability - with a minimum of not less than \$1,000,000 each occurrence and \$1,000,000 in the aggregate (where applicable).

5. El Ran will supply copies of insurance and will provide updated copies when changing carriers and also provide 30 days prior written notice. El Ran will also furnish advance notification of loss of insurance.

EXHIBIT 'D' UNIT OPERATING AGREEMENT: EL RAM, INC. CHAVEROO SAN
 ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

TRACT:	LEASE:	PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS		9-1-87		9-1-87		9-1-87		9-1-87		9-1-87		9-1-87	
		CUMULATIVE	PERCENTAGE PER LEASE	REMAINING PRIMARY	PERCENTAGE PER LEASE										
1	Dachner	92,565	0.09556123	0.00000000	0.00000000	92,565	0.09458998	160	0.14285715						
1a	Federal	136,079	0.14048373	0.00000000	0.00000000	136,079	0.13905591	160	0.14285714						
2	U.S.	26,124	0.02696961	0.00000000	0.00000000	26,124	0.02669550	80	0.07142857						
3	Byron	278,351	0.28736091	0.19103157	0.19103157	280,251	0.28638186	160	0.14285715						
4	Carroll	64,644	0.06673645	0.00000000	0.00000000	64,644	0.06605817	80	0.07142857						
5	Griffin	31,816	0.03284585	0.8089843	0.8089843	39,862	0.04073404	80	0.07142857						
6	Roberts	196,913	0.20328686	0.00000000	0.00000000	196,913	0.20122073	160	0.14285714						
7	Sarah	45,913	0.04739915	0.00000000	0.00000000	45,913	0.04691741	80	0.07142857						
8	Yeager	96,241	0.099335621	0.00000000	0.00000000	96,241	0.09834640	160	0.14285714						
TOTALS		968,646	1.00000000	9,946	1.00000000	978,592	1.00000000	1,120	1.00000000						
ALLOCATED PERCENTAGES PER FACTOR:															
							0.80000000		0.20000000						

EXHIBIT "D" UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN
 ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS FEBRUARY 1, 1988	9-1-87 CUMULATIVE PERCENTAGE PER LEASE		9-1-87 REMAINING PRIMARY PERCENTAGE PER LEASE		ULTIMATE PRIMARY PERCENTAGE PER LEASE		AREA PERCENTAGE PER LEASE		TOTAL PARTICIPATION FACTOR PER LEASE
	CUMULATIVE	PERCENTAGE PER LEASE	REMAINING PRIMARY	PERCENTAGE PER LEASE	ULTIMATE PRIMARY	PERCENTAGE PER LEASE	AREA PERCENTAGE PER LEASE	PERCENTAGE PER LEASE	
1 Dachner	0.00000000		0.00000000		0.07567198		0.02857143		0.10424341
1a Federal	0.00000000		0.00000000		0.11124473		0.02857143		0.13981616
2 U.S.	0.00000000		0.00000000		0.02135640		0.01428571		0.03564211
3 Byron	0.00000000		0.00000000		0.22910549		0.02857143		0.25767692
4 Carroll	0.00000000		0.00000000		0.05284654		0.01428571		0.06713225
5 Griffin	0.00000000		0.00000000		0.03258723		0.01428572		0.04687295
6 Roberts	0.00000000		0.00000000		0.16097658		0.02857143		0.18954801
7 Sarah	0.00000000		0.00000000		0.03753393		0.01428571		0.05181964
8 Yeager	0.00000000		0.00000000		0.07867712		0.02857143		0.10724855
TOTALS	0.00000000		0.00000000		0.80000000		0.20000000		1.00000000

EXHIBIT 'D'/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC.	TRACT 1	TRACT 1
CHAVEROO SAN ANDRES UNIT		NET REVENUE
PARTICIPATION FACTORS	DACHNER LEASE	INTERESTS

INVESTORS/WORKING INTEREST:

ARTHUR RAMPY	0.03125000	0.00265495
BARBARA EDWARDS	0.01562500	0.00132747
C. H. ELKINS ESTATE	0.37500000	0.03185939
CLYDE ELKINS	0.09375000	0.00796485
CRAIG MC DONALD	0.03125000	0.00265495
DR. W. H. GORDON, SR.	0.03125000	0.00265495
I. W. BRISCOE	0.03125000	0.00265495
JAMES G. MORRIS	0.18750000	0.01592970
JAMES M. EVANS	0.03125000	0.00265495
JOE A. RUDBERG	0.03125000	0.00265495
JOE W. GRAY	0.01562500	0.00132747
JOE J. REYNOLDS	0.03125000	0.00265495
L. D. PRATER	0.03125000	0.00265495
ROBERT RANCK	0.03125000	0.00265495
ROBERT W. ROSE	0.03125000	0.00265495

TOTAL	1.00000000	0.08495838
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EXHIBIT 'D'/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

	TRACT 1	TRACT 1
		NET REVENUE
		INTERESTS
EL RAN, INC.		
CHAVEROO SAN ANDRES UNIT		
PARTICIPATION FACTORS	DACHNER LEASE	

RI & ORRI INTEREST OWNERS:

WILFRED F. DACHNER/ORRI	0.00250000	0.00026061
SUSAN DAWSON/ORRI	0.04750000	0.00495156
ROBERT R. RANCK/ORRI	0.01000000	0.00104243
UNITED STATES/MINERALS MGMT.	0.12500000	0.01303043
TOTAL RI & ORRI OWNERS	0.18500000	0.01928503
GRAND TOTAL WI & RI OWNERS		0.10424341

EXHIBIT "D"/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

	TRACT 1a	TRACT 1a
EL RAN, INC.		
CHAVEROO SAN ANDRES UNIT		
PARTICIPATION FACTORS	FEDERAL LEASE	NET REVENUE INTERESTS

INVESTORS/WORKING INTEREST:

C. C. RANCK TRUST	0.01269531	0.00138451
DICK R. WEGENER	0.01523437	0.00166141
GILES M. FORBESS	0.23437500	0.02556014
NELLE JANE BAYLESS	0.03046875	0.00332282
R. C. RANCK TRUST	0.01269531	0.00138451
ROBERT RANCK	0.06250000	0.00681604
RUTH BAUNGARDNER TRUST	0.02539063	0.00276901
RUTH S. TERRELL	0.03125000	0.00340802
RUTH SAMUEL	0.20312500	0.02215212
SUSAN WOLF	0.01523437	0.00166141
W. W. RANCK	0.25976563	0.02832915
W. W. RANCK, JR.	0.05664063	0.00617704
WEGENER ENTERPRISES	0.04062500	0.00443042

TOTAL	1.00000000	0.10905660
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EXHIBIT 'D'/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TRACT 1a FEDERAL LEASE	TRACT 1a NET REVENUE INTERESTS
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RI & ORRI INTEREST OWNERS:

MILDRED F. DACHNER/ORRI	0.00250000	0.00034954
SUSAN DAWSON/ORRI	0.04750000	0.00664127
ROBERT R. RANCK/ORRI	0.02500000	0.00349541
W. W. RANCK, JR.	0.01000000	0.00139816
RANCK TRUST	0.01000000	0.00139816
UNITED STATES/MINERALS MGMT.	0.12500000	0.01747702
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TOTAL RI & ORRI OWNERS	0.22000000	0.03075956
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GRAND TOTAL WI & RI OWNERS	-----	0.13981616
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EXHIBIT 'D'/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN
 ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC.	TRACT 2	TRACT 2
CHAVEROO SAN ANDRES UNIT		NET REVENUE
PARTICIPATION FACTORS	U. S. LEASE	INTERESTS

 INVESTORS/WORKING INTEREST:

BENTON OIL	0.06250000	0.00167072
C. C. RANCK TRUST	0.01074218	0.00028715
C. H. ELKINS ESTATE	0.25000000	0.00668290
CLYDE ELKINS	0.06250000	0.00167072
DICK R. WEGENER	0.01289063	0.00034459
GORDON ROSE	0.03125000	0.00083537
JAMES G. MORRIS	0.12500000	0.00334145
JEROME SHARPE	0.03125000	0.00083537
NELLE JANE BAYLESS	0.02578124	0.00068918
R. C. RANCK TRUST	0.01074218	0.00028715
ROBERT RANCK	0.01562500	0.00041768
RUTH BAUMGARDNER TRUST	0.02148438	0.00057431
RUTH SAMUEL	0.06250000	0.00167072
SUSAN WOLF	0.01289063	0.00034459
W. W. RANCK	0.20898438	0.00558648
W. W. RANCK, JR.	0.02148438	0.00057431
WEGENER ENTERPRISES	0.03437500	0.00091890

TOTAL 1.00000000 0.02673159

EXHIBIT "D"/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN
 ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC.	TRACT 2	TRACT 2
CHAVEROO SAN ANDRES UNIT		NET REVENUE
PARTICIPATION FACTORS	U. S. LEASE	INTERESTS

RI & ORRI INTEREST OWNERS:

CELSIUS ENERGY CO./ORRI	0.09500000	0.00338600
MITCHELL ENERGY CORP./ORRI	0.02000000	0.00071284
HOWELL SPEAR/ORRI	0.01000000	0.00035642
UNITED STATES/MINERALS MGMT.	0.12500000	0.00445526
TOTAL RI & ORRI OWNERS	0.25000000	0.00891052
GRAND TOTAL WI & RI OWNERS		0.03564211

EXHIBIT 'D'/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC.	TRACT 3	TRACT 3
CHAVEROO SAN ANDRES UNIT		NET REVENUE
PARTICIPATION FACTORS	BYRON LEASE	INTERESTS

INVESTORS/WORKING INTEREST:

C. C. RANCK TRUST	0.00390625	0.00079517
C. H. ELKINS ESTATE	0.46875000	0.09542099
CLYDE ELKINS	0.14648000	0.02981817
DICK R. WEGENER	0.00468750	0.00095421
JAMES G. MORRIS	0.23438000	0.04771151
KLR ASSOC.	0.08789000	0.01789130
NELLE JANE BAYLESS	0.00937500	0.00190842
R. C. RANCK TRUST	0.00390625	0.00079517
RUTH BAUNGARDNER TRUST	0.00781250	0.00159035
SUSAN WOLF	0.00468750	0.00095421
W. W. RANCK	0.00781250	0.00159035
W. W. RANCK, JR.	0.00781250	0.00159035
WEGENER ENTERPRISES	0.01250000	0.00254456

TOTAL 1.00000000 0.20356476

RI & ORRI INTEREST OWNERS:

ROY G. BARTON, JR./RI	0.01983333	0.00511059
ROY G. BARTON, JR./ORRI	0.00187500	0.00048315
NORMA J. BARTON/RI	0.01275000	0.00328538
REBECCA J. BENSON	0.01888890	0.00486723
ROBERT P. BYRON/RI	0.02125005	0.00547565
ROBERT P. BYRON/ORRI	0.00375000	0.00096629
NORMA J. CHANLEY/RI	0.00708332	0.00182521
NORMA J. CHANLEY/ORRI	0.00187500	0.00048315

EXHIBIT 'D' / UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TRACT 3 BYRON LEASE	TRACT 3 NET REVENUE INTERESTS
MICHAEL S. CITY	0.00141670	0.00036505
DCH OIL & GAS CO.	0.00944445	0.00243362
HORSESHOE OIL & GAS	0.00944445	0.00243362
E. L. LATHAM, JR.	0.01133330	0.00292032
JAMES D. MC LEAN/ORRI	0.02000000	0.00515354
WILLIAM G. MC PHERON	0.01133330	0.00292033
FRED G. MIDDLETON	0.01888890	0.00486723
ELBA MIKOSZ	0.01000000	0.00257677
ROBERT R. RANCK/ORRI	0.01000000	0.00257677
DURWOOD A. TERRILL	0.02083330	0.00536826
TOTAL RI & ORRI OWNERS	0.21000000	0.05411216
GRAND TOTAL WI & RI OWNERS		0.25767692

EXHIBIT "D"/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVERO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

	TRACT 4	TRACT 4
		NET REVENUE
		INTERESTS
EL RAN, INC.		
CHAVERO SAN ANDRES UNIT		
PARTICIPATION FACTORS	CARROLL LEASE	

INVESTORS/WORKING INTEREST:

C. H. ELKINS ESTATE	0.50000000	0.02753472
CLYDE ELKINS	0.12500000	0.00688368
GORDON ROSE	0.09375000	0.00516276
JAMES G. MORRIS	0.25000000	0.01376735
ROBERT RANCK	0.03125000	0.00172092

TOTAL 1.00000000 0.05506943

RI & ORRI INTEREST OWNERS:

ROY G. BARTON, JR./RI	0.02041668	0.00137062
NORMA J. BARTON/RI	0.01312500	0.00088111
REBECCA J. BENSON	0.01944440	0.00130535
ROBERT P. BYRON/RI	0.02187505	0.00146852
H. D. CARROLL AND ...	0.01562500	0.00104894
NORMA J. CHANLEY/RI	0.00729168	0.00048950
MICHAEL S. CITTY	0.00145830	0.00009790
HORSESHOE OIL & GAS	0.01944440	0.00130535
E. L. LATHAM, JR.	0.01166670	0.00078321
WILLIAM G. MC PHERON	0.01166670	0.00078321
FRED G. MIDDLETON	0.01944440	0.00130535
DURWOOD A. TERRILL	0.01822920	0.00122376

TOTAL RI & ORRI OWNERS 0.17968751 0.01206282

GRAND TOTAL RI & RI OWNERS 0.06713225

EXHIBIT "D"/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC.	TRACT 5	TRACT 5
CHAVEROO SAN ANDRES UNIT		NET REVENUE
PARTICIPATION FACTORS	GRIFFIN LEASE	INTERESTS

INVESTORS/WORKING INTEREST:

ARTHUR RAMPY	0.03125000	0.00109859
C. C. RANCK TRUST	0.00781250	0.00027464
CLYDE ELKINS	0.06250000	0.00219717
DICK R. WEGENER	0.00937500	0.00032957
GILES M. FORBESS	0.03125000	0.00109859
GORDON ROSE	0.03125000	0.00109859
JAMES G. MORRIS	0.12500000	0.00439434
JEROME SHARPE	0.06250000	0.00219717
KEENEY ROYALTY TRUST	0.03125000	0.00109859
NELLE JANE BAYLESS	0.01875000	0.00065915
R. C. RANCK TRUST	0.00781250	0.00027464
ROBERT RANCK	0.06250000	0.00219717
RUTH BAUMGARDNER TRUST	0.01562500	0.00054929
RUTH S. TERRELL	0.12500000	0.00439434
RUTH SAMUEL	0.16750000	0.00659151
SUSAN WOLF	0.00937500	0.00032957
W. W. RANCK	0.14062500	0.00494363
W. W. RANCK, JR.	0.01562500	0.00054929
WEGENER ENTERPRISES	0.02500000	0.00087887

TOTAL	1.00000000	0.03515471
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EXHIBIT "D"/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TRACT 5 GRIFFIN LEASE	TRACT 5 NET REVENUE INTERESTS
RI & ORRI INTEREST OWNERS:		
CHAMPLIN PETROLEUM	0.07500000	0.00351547
MARY VIRGINIA GRIFFIN	0.08750000	0.00410138
ALFRED W. MITCHELL	0.02187500	0.00102535
KATHRYN MITCHELL	0.04375000	0.00205069
ROBERT L. MITCHELL	0.02187500	0.00102535
TOTAL RI & ORRI OWNERS	0.25000000	0.01171824
GRAND TOTAL RI & RI OWNERS		0.04687295

EXHIBIT "D"/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

	TRACT 6	TRACT 6
	ROBERTS LEASE	NET REVENUE INTERESTS
EL RAN, INC.		
CHAVEROO SAN ANDRES UNIT		
PARTICIPATION FACTORS		

INVESTORS/WORKING INTEREST:

C. C. RANCK TRUST	0.01464843	0.00216161
DICK R. WEGENER	0.01757813	0.00259394
GILES M. FORBESS	0.25000000	0.03689152
NELLE JANE BAYLESS	0.03515624	0.00518787
R. C. RANCK TRUST	0.01464843	0.00216161
ROBERT RANCK	0.03125000	0.00461144
RUTH BAUMGARDNER TRUST	0.02929688	0.00432323
RUTH S. TERRELL	0.02500000	0.00368915
RUTH SAMUEL	0.22500000	0.03320237
SUSAN WOLF	0.01757813	0.00259394
W. W. RANCK	0.26367188	0.03890903
W. W. RANCK, JR.	0.02929688	0.00432323
WEGENER ENTERPRISES	0.04687500	0.00691716
TOTAL	1.00000000	0.14756610

RI & ORRI INTEREST OWNERS:

ADOBE RESOURCES CORP.	0.02466140	0.00467452
J. E. BOOTHIE	0.00520830	0.00096722
TAMMIE B. BOOTHIE	0.00520830	0.00096722
ESTATE/C. H. ELKINS	0.00325520	0.00061702
HEMUS, INC.	0.00520830	0.00096722
CHARLES HORTON	0.00520830	0.00096722
PAUL & WILLINE JONES	0.02083330	0.00394891
JAMES D. MC LEAN/ORRI	0.01906260	0.00361328

EXHIBIT 'D'/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TRACT 6 ROBERTS LEASE	TRACT 6 NET REVENUE INTERESTS
ELBA MIKOSZ	0.00953120	0.00180662
BETTY T. RANCK	0.00325520	0.00061702
ROBERT R. RANCK/ORRI	0.02500000	0.00473870
ROBERT R. RANCK/RI	0.00651040	0.00123403
REPUBLIC NAT'L BANK	0.07291670	0.01382122
RANOMA CURRY ROBERTS	0.00781250	0.00148085
PATRICIA MARIE SANCHEZ	0.00260420	0.00049362
CHERIE SUMMERS MALCOT	0.00260420	0.00049362
THEODORE SUMMERS	0.00260420	0.00049362
TOTAL RI & ORRI OWNERS	0.22148430	0.04198191
GRAND TOTAL WI & RI OWNERS		0.18954801

EXHIBIT "D"/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TRACT 7 SARAH LEASE	TRACT 7 NET REVENUE INTERESTS
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INVESTORS/WORKING INTEREST:

C. C. RANCK TRUST	0.01269530	0.00051992
DICK POLLARD	0.03125000	0.00127980
DICK R. WEGENER	0.01523438	0.00062390
GILES M. FORBESS	0.12500000	0.00511922
NELLE JANE BAYLESS	0.03046875	0.00124781
R. C. RANCK TRUST	0.01269530	0.00051992
ROBERT RANCK	0.12500000	0.00511922
RUTH BAUNGARDNER TRUST	0.02339063	0.00103984
RUTH SAMUEL	0.12500000	0.00511922
SUSAN WOLF	0.01523438	0.00062390
W. W. RANCK	0.33789063	0.01383788
W. W. RANCK, JR.	0.10351563	0.00423935
WEGENER ENTERPRISES	0.04062500	0.00166374
TOTAL	1.00000000	0.04095372

RI & ORRI INTEREST OWNERS:

ROY G. BARTON, JR./RI	0.02041668	0.00105799
NORMA J. BARTON/RI	0.01312500	0.00066013
REBECCA J. BENSON	0.01944440	0.00100760
ROBERT P. BYRON/RI	0.02187495	0.00113355
H. D. CARROLL AND ...	0.01562500	0.00080968
NORMA J. CHANLEY/RI	0.00729168	0.00037785
MICHAEL S. CITY	0.00145830	0.00007557
HORSESHOE OIL & GAS	0.01944440	0.00100760

EXHIBIT 'D' UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN
 ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TRACT 7 SARAH LEASE	TRACT 7 NET REVENUE INTERESTS
E. L. LATHAM, JR.	0.01166660	0.00060456
WILLIAM G. MC PHERON	0.01166670	0.00060456
FRED G. MIDDLETON	0.01944440	0.00100760
ROBERT R. RANCK/ORRI	0.01000000	0.00051820
W. W. RANCK, JR.	0.01000000	0.00051820
RANCK TRUST	0.01000000	0.00051820
DURWOOD A. TERRILL	0.01822920	0.00094463
TOTAL RI & ORRI OWNERS	0.20968731	0.01086592
GRAND TOTAL WI & RI OWNERS		0.05181964

EXHIBIT 'D' / UNIT OPERATING AGREEMENT: EL RAM, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAM, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TRACT 8 YEAGER LEASE	TRACT 8 NET REVENUE INTERESTS
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INVESTORS/WORKING INTEREST:

C. C. RANCK TRUST	0.01195477	0.00101288
C. H. ELKINS ESTATE	0.48437500	0.04103933
DALBY ESTATE	0.32434880	0.02748089
DICK R. WEGENER	0.00234374	0.00019857
JEWEL DALBY BENTON TRUST	0.01600262	0.00135585
WELLE JANE BAYLESS	0.00468750	0.00039716
R. C. RANCK TRUST	0.01195477	0.00101288
ROBERT RANCK	0.02000327	0.00169480
RUTH BAUGARDNER TRUST	0.00390625	0.00033097
RUTH SAMUEL	0.04000655	0.00338961
SUSAN WOLF	0.00234375	0.00019857
W. W. RANCK	0.05991542	0.00507641
W. W. RANCK, JR.	0.01190756	0.00100889
WEGENER ENTERPRISES	0.00625000	0.00052954
TOTAL	1.00000000	0.08472635

RI & ORRI INTEREST OWNERS:

CLEM E. GEORGE/ORRI	0.02687500	0.00288230
JOHN W. LODIEWICK	0.01041660	0.00111717
LAURA B. LODIEWICK	0.03125000	0.00335152
LARVA PATRICIA LODIEWICK	0.01041670	0.00111718
RICHARD B. LODIEWICK	0.01041670	0.00111718
W. W. RANCK/ORRI	0.02687500	0.00288230
W. A. & PATSY YEAGER	0.09375000	0.01005455

EXHIBIT 'D'/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN
 ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TRACT 8 YEAGER LEASE	TRACT 8 NET REVENUE INTERESTS
TOTAL RI & ORRI OWNERS	0.2100000	0.02252220
GRAND TOTAL WI & RI OWNERS		0.10724855

EXHIBIT 'D'/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN
 ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC.	TOTAL WATERFLOOD
CHAVEROO SAN ANDRES UNIT	PARTICIPATION
PARTICIPATION FACTORS	FOR ALL INTERESTS

 INVESTORS/WORKING INTEREST:

ARTHUR RAMPY	0.00375354
BARBARA EDWARDS	0.00132747
BENTON OIL	0.00167072
C. C. RANCK TRUST	0.00643588
C. H. ELKINS ESTATE	0.20253733
CLYDE ELKINS	0.04853459
CRAIG MC DONALD	0.00265495
DALBY ESTATE	0.02748089
DICK POLLARD	0.00127980
DICK R. WEGENER	0.00670619
DR. W. H. GORDON, SR.	0.00265495
GILES H. FORBESS	0.05866947
GORDON ROSE	0.00709872
I. W. BRISCOE	0.00265495
JAMES G. MORRIS	0.08514435
JAMES H. EVANS	0.00265495
JEROME SHARPE	0.00303254
JEWEL DALBY BENTON TRUST	0.00135585
JOE A. RUDBERG	0.00265495
JOE W. GRAY	0.00132747
JOE J. REYNOLDS	0.00265495
KEENEY ROYALTY TRUST	0.00109859
KLR ASSOC.	0.01789130
L. D. PRATER	0.00265495
NELLE JANE BAYLESS	0.01341241
R. C. RANCK TRUST	0.00643588
ROBERT RANCK	0.02523222

EXHIBIT 'D'/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TOTAL WATERFLOOD PARTICIPATION FOR ALL INTERESTS
ROBERT W. ROSE	0.00265495
RUTH BAUMGARDNER TRUST	0.01117700
RUTH S. TERRELL	0.01149151
RUTH SAMUEL	0.07212555
SUSAN WOLF	0.00670619
W. W. RANCK	0.09827293
W. W. RANCK, JR.	0.01846246
MEGENER ENTERPRISES	0.01788319

TOTAL 0.78778164

RI & ORRI INTEREST OWNERS:

ADOBE RESOURCES CORP.	0.00467452
ROY G. BARTON, JR./RI	0.00753320
ROY G. BARTON, JR./ORRI	0.00048315
NORMA J. BARTON/RI	0.00484662
REBECCA J. BENSON	0.00718018
J. E. BOOTHE	0.00098722
TAMMIE B. BOOTHE	0.00098722
ROBERT P. BYRON/RI	0.00807772
ROBERT P. BYRON/ORRI	0.00096629
H. D. CARROLL AND ...	0.00185862
CELSIUS ENERGY CO./ORRI	0.00338600
CHAMPLIN PETROLEUM	0.00351547
NORMA J. CHANLEY/RI	0.00269256
NORMA J. CHANLEY/ORRI	0.00048315
MICHAEL S. CITTY	0.00053852
MILDRED F. DACHNER/ORRI	0.00061015
SUSAN DAWSON/ORRI	0.01159283

EXHIBIT "D"/UNIT OPERATING AGREEMENT: EL RAN, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAN, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TOTAL WATERFLOOD PARTICIPATION FOR ALL INTERESTS

DCM OIL & GAS CO.	0.00243362
ESTATE/C. H. ELKINS	0.00061702
CLEM E. GEORGE/ORRI	0.00288230
MARY VIRGINIA GRIFFIN	0.00410138
HEMUS, INC.	0.00098722
HORSESHOE OIL & GAS	0.00474657
CHARLES HORTON	0.00098722
PAUL & WILLINE JONES	0.00394891
E. L. LATHAM, JR.	0.00430809
JOHN W. LODEWICK	0.00111717
LAURA B. LODEWICK	0.00335152
LARJA PATRICIA LODEWICK	0.00111718
RICHARD B. LODEWICK	0.00111718
JAMES D. MC LEAN/ORRI	0.00876882
WILLIAM G. MC PHERON	0.00430810
FRED G. MIDDLETON	0.00718018
ELBA MIKOSZ	0.00438339
MITCHELL ENERGY CORP./ORRI	0.00071284
ALFRED W. MITCHELL	0.00102535
KATHRYN MITCHELL	0.00205069
ROBERT L. MITCHELL	0.00102535
BETTY T. RANCK	0.00061702
ROBERT R. RANCK/ORRI	0.01237151
ROBERT R. RANCK/RI	0.00123403
W. W. RANCK/ORRI	0.00288230
W. W. RANCK, JR.	0.00191636
RANCK TRUST	0.00191636
REPUBLIC NAT'L BANK	0.01382122
RAMONA CURRY ROBERTS	0.00148085
PATRICIA MARIE SANCHEZ	0.00049362
HOWELL SPEAR/ORRI	0.00035642

EXHIBIT "D"/UNIT OPERATING AGREEMENT: EL RAM, INC. CHAVEROO SAN ANDRES UNIT, LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

EL RAM, INC. CHAVEROO SAN ANDRES UNIT PARTICIPATION FACTORS	TOTAL WATERFLOOD PARTICIPATION FOR ALL INTERESTS
DURWOOD A. TERRILL	0.00753665
UNITED STATES/MINERALS MGMT.	0.03496271
CHERIE SUMMERS MALCOT	0.00049362
THEODORE SUMMERS	0.00049362
W. A. & PATSY YEAGER	0.01005455

TOTAL RI & ORRI OWNERS	0.21221836

GRAND TOTAL WI & RI OWNERS	1.00000000

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 1 DACHNER	TRACT 1/DACHNER PARTIC. FACTOR PER PERSON	TRACT 1/DACHNER NRI FOR ALL INTERESTS	TRACT 1/DACHNER RATIFICATIONS RECEIVED	TRACT 1/DACHNER PERCENTAGE RECEIVED

INVESTORS/WORKING INTEREST:					

ARTHUR RAMPY	0.03125000	0.00325760	0.00265495	0.00265495	
BARBARA EDWARDS	0.01562500	0.00162880	0.00132747	0.00132747	
C. H. ELKINS ESTATE	0.37500000	0.03909128	0.03185939	0.03185939	
CLYDE ELKINS	0.09375000	0.00977282	0.00796485	0.00796485	
CRAIG MC DONALD	0.03125000	0.00325761	0.00265495	0.00265495	
DR. W. H. GORDON, SR.	0.03125000	0.00325760	0.00265495	0.00265495	
I. W. BRISCOE	0.03125000	0.00325761	0.00265495	0.00265495	
JAMES G. MORRIS	0.18750000	0.01954564	0.01592970	0.01592970	
JAMES M. EVANS	0.03125000	0.00325760	0.00265495	0.00265495	
JOE A. RUDBERG	0.03125000	0.00325761	0.00265495	0.00265495	
JOE W. GRAY	0.01562500	0.00162880	0.00132747	0.00132747	
JOE J. REYNOLDS	0.03125000	0.00325761	0.00265495	0.00265495	
L. D. PRATER	0.03125000	0.00325761	0.00265495	0.00265495	
ROBERT RANCK	0.03125000	0.00325761	0.00265495	0.00265495	
ROBERT W. ROSE	0.03125000	0.00325761	0.00265495	0.00265495	

TOTAL	1.00000000	0.10424341	0.08495838	0.08495838	100.00%

BEFORE EXAMINER STOGNER	
OIL CONSERVATION DIVISION	
<i>El Ran</i>	EXHIBIT NO. <u>4</u>
CASE NO.	<u>9357 + 9358</u>

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 1 DACHNER	TRACT 1/DACHNER PARTIC. FACTOR PER PERSON	TRACT 1/DACHNER NRI FOR ALL INTERESTS	TRACT 1/DACHNER RATIFICATIONS RECEIVED	TRACT 1/DACHNER PERCENTAGE RECEIVED

RI & ORRI INTEREST OWNERS:					

MILDRED F. DACHNER/ORRI	0.00250000		0.00026061	0.00026061	
SUSAN DAWSON/ORRI	0.04750000		0.00495156	0.00495156	
ROBERT R. RANCK/ORRI	0.01000000		0.00104243	0.00104243	
UNITED STATES/MINERALS MGMT.	0.12500000		0.01303043	0.01303043	

TOTAL RI & ORRI OWNERS	0.18500000		0.01928503	0.01928503	100.00%
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GRAND TOTAL WI & RI OWNERS		0.10424341	0.10424341	0.10424341	100.00%
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EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 1a FEDERAL	TRACT 1a/FEDERAL PARTIC. FACTOR PER INTEREST	TRACT 1A/FEDERAL NRI FOR ALL INTERESTS	TRACT 1A/FEDERAL RATIFICATIONS RECEIVED	TRACT 1A/FEDERAL PERCENTAGE RECEIVED

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INVESTORS/WORKING INTEREST:					

C. C. RANCK TRUST	0.01269531	0.00177501	0.00138451	0.00138451	
DICK R. WEGENER	0.01523437	0.00213001	0.00166141	0.00166141	
GILES M. FORBESS	0.23437500	0.03276941	0.02556014	0.02556014	
NELLE JANE BAYLESS	0.03046875	0.00426002	0.00332282	0.00332282	
R. C. RANCK TRUST	0.01269531	0.00177501	0.00138451	0.00138451	
ROBERT RANCK	0.06250000	0.00873851	0.00681604	0.00681604	
RUTH BAUMGARDNER TRUST	0.02539063	0.00355002	0.00276901	0.00276901	
RUTH S. TERRELL	0.03125000	0.00436926	0.00340802	0.00340802	
RUTH SAMUEL	0.20312500	0.02840016	0.02215212	0.02215212	
SUSAN WOLF	0.01523437	0.00213001	0.00166141	0.00166141	
W. W. RANCK	0.25976563	0.03631943	0.02832915	0.02832915	
W. W. RANCK, JR.	0.05664063	0.00791928	0.00617704	0.00617704	
WEGENER ENTERPRISES	0.04062500	0.00568003	0.00443042	0.00443042	

TOTAL	1.00000000	0.13981616	0.10905660	0.10905660	100.00%
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EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 1a FEDERAL	TRACT 1a/FEDERAL PARTIC. FACTOR PER INTEREST	TRACT 1A/FEDERAL NRI FOR ALL INTERESTS	TRACT 1A/FEDERAL RATIFICATIONS RECEIVED	TRACT 1A/FEDERAL PERCENTAGE RECEIVED

RI & ORRI INTEREST OWNERS:					

MILDRED F. DACHNER/ORRI	0.00250000		0.00034954	0.00034954	
SUSAN DAWSON/ORRI	0.04750000		0.00664127	0.00664127	
ROBERT R. RANCK/ORRI	0.02500000		0.00349541	0.00349541	
W. W. RANCK, JR.	0.01000000		0.00139816	0.00139816	
RANCK TRUST	0.01000000		0.00139816	0.00139816	
UNITED STATES/MINERALS MGMT.	0.12500000		0.01747702	0.01747702	

TOTAL RI & ORRI OWNERS	0.22000000		0.03075956	0.03075956	100.00%
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GRAND TOTAL WI & RI OWNERS		0.13981616	0.13981616	0.13981616	100.00%
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EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 2 U. S.	TRACT 2/U. S. PARTIC. FACTOR PER INTEREST	TRACT 2/U.S. NRI FOR ALL INTERESTS	TRACT 2/U. S. RATIFICATIONS RECEIVED	TRACT 2/U. S. PERCENTAGE RECEIVED

INVESTORS/WORKING INTEREST:					

BENTON OIL	0.06250000	0.00222763	0.00167072	0.00167072	
C. C. RANCK TRUST	0.01074218	0.00038287	0.00028715	0.00028715	
C. H. ELKINS ESTATE	0.25000000	0.00891053	0.00668290	0.00668290	
CLYDE ELKINS	0.06250000	0.00222763	0.00167072	0.00167072	
DICK R. WEGENER	0.01289063	0.00045945	0.00034459	0.00034459	
GORDON ROSE	0.03125000	0.00111382	0.00083537	0.00083537	
JAMES G. MORRIS	0.12500000	0.00445526	0.00334145	0.00334145	
JEROME SHARPE	0.03125000	0.00111382	0.00083537	0.00083537	
NELLE JANE BAYLESS	0.02578124	0.00091890	0.00068918	0.00068918	
R. C. RANCK TRUST	0.01074218	0.00038287	0.00028715	0.00028715	
ROBERT RANCK	0.01562500	0.00055691	0.00041768	0.00041768	
RUTH BAUMGARDNER TRUST	0.02148438	0.00076575	0.00057431	0.00057431	
RUTH SAMUEL	0.06250000	0.00222763	0.00167072	0.00167072	
SUSAN WOLF	0.01289063	0.00045945	0.00034459	0.00034459	
W. W. RANCK	0.20898438	0.00744864	0.00558648	0.00558648	
W. W. RANCK, JR.	0.02148438	0.00076575	0.00057431	0.00057431	
WEGENER ENTERPRISES	0.03437500	0.00122520	0.00091890	0.00091890	

TOTAL	1.00000000	0.03564211	0.02673159	0.02673159	100.00%

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 2 U. S.	TRACT 2/U. S. PARTIC. FACTOR PER INTEREST	TRACT 2/U.S. NRI FOR ALL INTERESTS	TRACT 2/U. S. RATIFICATIONS RECEIVED	TRACT 2/U. S. PERCENTAGE RECEIVED

RI & ORRI INTEREST OWNERS:					

CELSIUS ENERGY CO./ORRI	0.09500000		0.00338600		
MITCHELL ENERGY CORP./ORRI	0.02000000		0.00071284	0.00071284	
HOWELL SPEAR/ORRI	0.01000000		0.00035642	0.00035642	
UNITED STATES/MINERALS MGMT.	0.12500000		0.00445526	0.00445526	

TOTAL RI & ORRI OWNERS	0.25000000		0.00891052	0.00552452	62.00%
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GRAND TOTAL WI & RI OWNERS		0.03564211	0.03564211	0.03225611	90.50%
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EL RAN, INC. CHAVEROO SAN ANDRES UNIT
LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 3 BYRON	TRACT 3/BYRON PARTIC. FACTOR PER INTEREST	TRACT 3/BYRON NRI FOR ALL INTERESTS	TRACT 3/BYRON RATIFICATIONS RECEIVED	TRACT 3/BYRON PERCENTAGE RECEIVED

RI & ORRI INTEREST OWNERS:					

ROY G. BARTON, JR./RI	0.01983333		0.00511059	0.00511059	
ROY G. BARTON, JR./ORRI	0.00187500		0.00048315	0.00048315	
NORMA J. BARTON/RI	0.01275000		0.00328538	0.00328538	
REBECCA J. BENSON	0.01888890		0.00486723	0.00486723	
ROBERT P. BYRON/RI	0.02125005		0.00547565	0.00547565	
ROBERT P. BYRON/ORRI	0.00375000		0.00096629	0.00096629	
NORMA J. CHANLEY/RI	0.00708332		0.00182521	0.00182521	
NORMA J. CHANLEY/ORRI	0.00187500		0.00048315	0.00048315	
MICHAEL S. CITY	0.00141670		0.00036505	0.00036505	
DCM OIL & GAS CO.	0.00944445		0.00243362		
HORSESHOE OIL & GAS	0.00944445		0.00243362	0.00243362	
E. L. LATHAM, JR.	0.01133330		0.00292032	0.00292032	
JAMES D. MC LEAN/ORRI	0.02000000		0.00515354	0.00515354	
WILLIAM G. MC PHERON	0.01133330		0.00292033	0.00292033	
FRED G. MIDDLETON	0.01888890		0.00486723	0.00486723	
ELBA MIKOSZ	0.01000000		0.00257677	0.00257677	
ROBERT R. RANCK/ORRI	0.01000000		0.00257677	0.00257677	
DURWOOD A. TERRILL	0.02083330		0.00536826		

TOTAL RI & ORRI OWNERS	0.21000000		0.05411216	0.04631028	85.58%
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GRAND TOTAL WI & RI OWNERS		0.25767692	0.25767692	0.24987504	96.97%
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EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 4 CARROLL	TRACT 4/CARROLL PARTIC. FACTOR PER PERSON	TRACT 4/CARROLL NRI FOR ALL INTERESTS	TRACT 4/CARROLL RATIFICATIONS RECEIVED	TRACT 4/CARROLL PERCENTAGE RECEIVED

INVESTORS/WORKING INTEREST:					

C. H. ELKINS ESTATE	0.50000000	0.03356613	0.02753472	0.02753472	
CLYDE ELKINS	0.12500000	0.00839153	0.00688368	0.00688368	
GORDON ROSE	0.09375000	0.00629365	0.00516276	0.00516276	
JAMES G. MORRIS	0.25000000	0.01678306	0.01376735	0.01376735	
ROBERT RANCK	0.03125000	0.00209788	0.00172092	0.00172092	

TOTAL	1.00000000	0.06713225	0.05506943	0.05506943	100.00%

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 4 CARROLL	TRACT 4/CARROLL PARTIC. FACTOR PER PERSON	TRACT 4/CARROLL NRI FOR ALL INTERESTS	TRACT 4/CARROLL RATIFICATIONS RECEIVED	TRACT 4/CARROLL PERCENTAGE RECEIVED
RI & ORRI INTEREST OWNERS:					
ROY G. BARTON, JR./RI	0.02041668		0.00137062	0.00137062	
NORMA J. BARTON/RI	0.01312500		0.00088111	0.00088111	
REBECCA J. BENSON	0.01944440		0.00130535	0.00130535	
ROBERT P. BYRON/RI	0.02187505		0.00146852	0.00146852	
H. D. CARROLL AND ...	0.01562500		0.00104894	0.00104894	
NORMA J. CHANLEY/RI	0.00729168		0.00048950	0.00048950	
MICHAEL S. CITY	0.00145930		0.00009790	0.00009790	
HORSESHOE OIL & GAS	0.01944440		0.00130535	0.00130535	
E. L. LATHAM, JR.	0.01166670		0.00078321	0.00078321	
WILLIAM G. MC PHEPON	0.01166670		0.00078321	0.00078321	
FRED G. MIDDLETON	0.01944440		0.00130535	0.00130535	
DURWOOD A. TERRILL	0.01822920		0.00122376		
TOTAL RI & ORRI OWNERS	0.17968751		0.01206282	0.01083906	89.86%
GRAND TOTAL WI & RI OWNERS		0.06713225	0.06713225	0.06590849	98.18%

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 5 GRIFFIN	TRACT 5/GRIFFIN PARTIC. FACTOR PER INTEREST	TRACT 5/GRIFFIN NRI FOR ALL INTERESTS	TRACT 5/GRIFFIN RATIFICATIONS RECEIVED	TRACT 5/GRIFFIN PERCENTAGE RECEIVED
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INVESTORS/WORKING INTEREST:					

ARTHUR RAMPY	0.03125000	0.00146478	0.00109859	0.00109859	
C. C. RANCK TRUST	0.00781250	0.00036619	0.00027464	0.00027464	
CLYDE ELKINS	0.06250000	0.00292956	0.00219717	0.00219717	
DICK R. WEGENER	0.00937500	0.00043943	0.00032957	0.00032957	
GILES M. FORBESS	0.03125000	0.00146478	0.00109859	0.00109859	
GORDON ROSE	0.03125000	0.00146478	0.00109859	0.00109859	
JAMES G. MORRIS	0.12500000	0.00585912	0.00439434	0.00439434	
JEROME SHARPE	0.06250000	0.00292956	0.00219717	0.00219717	
KEENEY ROYALTY TRUST	0.03125000	0.00146478	0.00109859	0.00109859	
NELLE JANE BAYLESS	0.01875000	0.00087887	0.00065915	0.00065915	
R. C. RANCK TRUST	0.00781250	0.00036619	0.00027464	0.00027464	
ROBERT RANCK	0.06250000	0.00292956	0.00219717	0.00219717	
RUTH BAUMGARDNER TRUST	0.01562500	0.00073239	0.00054929	0.00054929	
RUTH S. TERRELL	0.12500000	0.00585912	0.00439434	0.00439434	
RUTH SAMUEL	0.18750000	0.00878868	0.00659151	0.00659151	
SUSAN WOLF	0.00937500	0.00043943	0.00032957	0.00032957	
W. W. RANCK	0.14062500	0.00659151	0.00494363	0.00494363	
W. W. RANCK, JR.	0.01562500	0.00073239	0.00054929	0.00054929	
WEGENER ENTERPRISES	0.02500000	0.00117183	0.00087887	0.00087887	

TOTAL	1.00000000	0.04687295	0.03515471	0.03515471	100.00%
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EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 5 GRIFFIN	TRACT 5/GRIFFIN PARTIC. FACTOR PER INTEREST	TRACT 5/GRIFFIN NRI FOR ALL INTERESTS	TRACT 5/GRIFFIN RATIFICATIONS RECEIVED	TRACT 5/GRIFFIN PERCENTAGE RECEIVED
RI & ORRI INTEREST OWNERS:					
CHAMPLIN PETROLEUM	0.07500000		0.00351547		
MARY VIRGINIA GRIFFIN	0.08750000		0.00410138		
ALFRED W. MITCHELL	0.02187500		0.00102535		
KATHRYN MITCHELL	0.04375000		0.00205069		
ROBERT L. MITCHELL	0.02187500		0.00102535		
TOTAL RI & ORRI OWNERS	0.25000000		0.01171824		0.00%
GRAND TOTAL WI & RI OWNERS		0.04687295	0.04687295	0.03515471	75.00%

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 6 ROBERTS	TRACT 6/ROBERTS PARTIC. FACTOR PER INTEREST	TRACT 6/ROBERTS NRI FOR ALL INTERESTS	TRACT 6/ROBERTS RATIFICATIONS RECEIVED	TRACT 6/ROBERTS PERCENTAGE RECEIVED

INVESTORS/WORKING INTEREST:					
C. C. RANCK TRUST	0.01464843	0.00277658	0.00216161	0.00216161	
DICK R. WEGENER	0.01757813	0.00333190	0.00259394	0.00259394	
GILES M. FORBESS	0.25000000	0.04738700	0.03689152	0.03689152	
NELLE JANE BAYLESS	0.03515624	0.00666380	0.00518787	0.00518787	
R. C. RANCK TRUST	0.01464843	0.00277658	0.00216161	0.00216161	
ROBERT RANCK	0.03125000	0.00592338	0.00461144	0.00461144	
RUTH BAUMGARDNER TRUST	0.02929688	0.00555317	0.00432323	0.00432323	
RUTH S. TERRELL	0.02500000	0.00473870	0.00368915	0.00368915	
RUTH SAMUEL	0.22500000	0.04264830	0.03320237	0.03320237	
SUSAN WOLF	0.01757813	0.00333190	0.00259394	0.00259394	
W. W. RANCK	0.26367188	0.04997848	0.03890903	0.03890903	
W. W. RANCK, JR.	0.02929688	0.00555316	0.00432323	0.00432323	
WEGENER ENTERPRISES	0.04687500	0.00888506	0.00691716	0.00691716	

TOTAL	1.00000000	0.18954801	0.14756610	0.14756610	100.00%

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 6 ROBERTS	TRACT 6/ROBERTS PARTIC. FACTOR PER INTEREST	TRACT 6/ROBERTS NRI FOR ALL INTERESTS	TRACT 6/ROBERTS RATIFICATIONS RECEIVED	TRACT 6/ROBERTS PERCENTAGE RECEIVED
RI & ORRI INTEREST OWNERS:					
ADOBE RESOURCES CORP.	0.02466140		0.00467452	0.00467452	
J. E. BOOTHE ESTATE	0.00520830		0.00098722	0.00098722	
SAMMIE B. BOOTHE(Wife)	0.00520830		0.00098722	0.00098722	
ESTATE/C. H. ELKINS	0.00325520		0.00061702	0.00061702	
HEMUS, INC.	0.00520830		0.00098722	0.00098722	
CHARLES HORTON	0.00520830		0.00098722	0.00098722	
PAUL & WILLINE JONES	0.02083330		0.00394891	0.00394891	
JAMES D. MC LEAN/ORRI	0.01906260		0.00361328	0.00361328	
ELBA MIKOSZ	0.00953120		0.00180662	0.00180662	
BETTY T. RANCK	0.00325520		0.00061702	0.00061702	
ROBERT R. RANCK/ORRI	0.02500000		0.00473870	0.00473870	
ROBERT R. RANCK/RI	0.00651040		0.00123403	0.00123403	
REPUBLIC NAT'L BANK	0.07291670		0.01382122	0.01382122	
RAMONA CURRY ROBERTS	0.00781250		0.00148085	0.00148085	
PATRICIA MARIE SANCHEZ	0.00260420		0.00049362	0.00049362	
CHERIE SUMMERS WALCOT	0.00260420		0.00049362	0.00049362	
THEODORE SUMMERS	0.00260420		0.00049362	0.00049362	
TOTAL RI & ORRI OWNERS	0.22148430		0.04198191	0.04099467	97.65%
GRAND TOTAL WI & RI OWNERS		0.18954801	0.18954801	0.18856077	99.48%

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 7 SARAH	TRACT 7/SARAH PARTIC. FACTOR PER INTEREST	TRACT 7/SARAH NRI FOR ALL INTERESTS	TRACT 7/SARAH RATIFICATIONS RECEIVED	TRACT 7/SARAH PERCENTAGE RECEIVED
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INVESTORS/WORKING INTEREST:					

C. C. RANCK TRUST	0.01269530	0.00065787	0.00051992	0.00051992	
DICK POLLARD	0.03125000	0.00161936	0.00127980	0.00127980	
DICK R. WEGENER	0.01523438	0.00078944	0.00062390	0.00062390	
GILES M. FORBESS	0.12500000	0.00647745	0.00511922	0.00511922	
NELLE JANE BAYLESS	0.03046875	0.00157888	0.00124781	0.00124781	
R. C. RANCK TRUST	0.01269530	0.00065787	0.00051992	0.00051992	
ROBERT RANCK	0.12500000	0.00647746	0.00511922	0.00511922	
RUTH BAUMGARDNER TRUST	0.02539063	0.00131573	0.00103984	0.00103984	
RUTH SAMUEL	0.12500000	0.00647746	0.00511922	0.00511922	
SUSAN WOLF	0.01523438	0.00078944	0.00062390	0.00062390	
W. W. RANCK	0.33789063	0.01750937	0.01383788	0.01383788	
W. W. RANCK, JR.	0.10351563	0.00536414	0.00423935	0.00423935	
WEGENER ENTERPRISES	0.04062500	0.00210517	0.00166374	0.00166374	

TOTAL	1.00000000	0.05181964	0.04095372	0.04095372	100.00%
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EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 7 SARAH	TRACT 7/SARAH PARTIC. FACTOR PER INTEREST	TRACT 7/SARAH NRI FOR ALL INTERESTS	TRACT 7/SARAH RATIFICATIONS RECEIVED	TRACT 7/SARAH PERCENTAGE RECEIVED
RI & ORRI INTEREST OWNERS:					
ROY G. BARTON, JR./RI	0.02041668		0.00105799	0.00105799	
NORMA J. BARTON/RI	0.01312500		0.00068013	0.00068013	
REBECCA J. BENSON	0.01944440		0.00100760	0.00100760	
ROBERT P. BYRON/RI	0.02187495		0.00113355	0.00113355	
H. D. CARROLL AND ...	0.01562500		0.00080968	0.00080968	
NORMA J. CHANLEY/RI	0.00729168		0.00037785	0.00037785	
MICHAEL S. CITY	0.00145830		0.00007557	0.00007557	
HORSESHOE OIL & GAS	0.01944440		0.00100760	0.00100760	
E. L. LATHAM, JR.	0.01166660		0.00060456	0.00060456	
WILLIAM G. MC PHERON	0.01166670		0.00060456	0.00060456	
FRED G. MIDDLETON	0.01944440		0.00100760	0.00100760	
ROBERT R. RANCK/ORRI	0.01000000		0.00051820	0.00051820	
W. W. RANCK, JR.	0.01000000		0.00051820	0.00051820	
RANCK TRUST	0.01000000		0.00051820	0.00051820	
DURWOOD A. TERRILL	0.01822920		0.00094463		
TOTAL RI & ORRI OWNERS	0.20968731		0.01086592	0.00992129	91.31%
GRAND TOTAL WI & RI OWNERS		0.05181964	0.05181964	0.05087501	98.18%

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 8 YEAGER	TRACT 8/YEAGER PARTIC. FACTOR PER INTEREST	TRACT 8/YEAGER NRI FOR ALL INTERESTS	TRACT 8/YEAGER RATIFICATIONS RECEIVED	TRACT 8/YEAGER PERCENTAGE RECEIVED
=====					
INVESTORS/WORKING INTEREST:					
C. C. RANCK TRUST	0.01195477	0.00128213	0.00101288	0.00101288	
C. H. ELKINS ESTATE	0.48437500	0.05194852	0.04103933	0.04103933	
DALBY ESTATE	0.32434880	0.03478594	0.02748089	0.02748089	
DICK P. WEGENER	0.00234374	0.00025136	0.00019857	0.00019857	
JEWEL DALBY BENTON TRUST	0.01600262	0.00171626	0.00135585	0.00135585	
NELLE JANE BAYLESS	0.00468750	0.00050273	0.00039716	0.00039716	
R. C. RANCK TRUST	0.01195477	0.00128213	0.00101288	0.00101288	
ROBERT RANCK	0.02000327	0.00214532	0.00169480	0.00169480	
RUTH BAUMGARDNER TRUST	0.00390625	0.00041895	0.00033097	0.00033097	
RUTH SAMUEL	0.04000655	0.00429064	0.00338961	0.00338961	
SUSAN WOLF	0.00234375	0.00025136	0.00019857	0.00019857	
W. W. RANCK	0.05991542	0.00642584	0.00507641	0.00507641	
W. W. RANCK, JR.	0.01190756	0.00127707	0.00100889	0.00100889	
WEGENER ENTERPRISES	0.00825000	0.00087030	0.00052954	0.00052954	
=====					
TOTAL	1.00000000	0.10724855	0.08472635	0.08472635	100.00%
=====					

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 8 YEAGER	TRACT 8/YEAGER PARTIC. FACTOR PER INTEREST	TRACT 8/YEAGER NRI FOR ALL INTERESTS	TRACT 8/YEAGER RATIFICATIONS RECEIVED	TRACT 8/YEAGER PERCENTAGE RECEIVED
RI & ORRI INTEREST OWNERS:					
CLEM E. GEORGE/ORRI	0.02587500		0.00288230	0.00288230	
JOHN W. LODEWICK	0.01041660		0.00111717	0.00111717	
LAURA B. LODEWICK	0.03125000		0.00335152		
LARUA PATRICIA LODEWICK	0.01041670		0.00111718	0.00111718	
RICHARD B. LODEWICK	0.01041670		0.00111718		
W. W. RANCK/ORRI	0.02687500		0.00288230	0.00288230	
W. A. & PATSY YEAGER	0.09375000		0.01005455	0.01005455	
TOTAL RI & ORRI OWNERS	0.21000000		0.02252220	0.01805350	80.16%
GRAND TOTAL WI & RI OWNERS		0.10724855	0.10724855	0.10277985	95.83%

EL RAN, INC. CHAVEROO SAN ANDRES UNIT/SUMMARY
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TOTAL WATERFLOOD PARTICIPATION FOR ALL INTERESTS	RATIFICATIONS RECEIVED	TOTAL PERCENTAGE RECEIVED

INVESTORS/WORKING INTEREST:			

ARTHUR RAMPY	0.00375354	0.00375354	
BARBARA EDWARDS	0.00132747	0.00132747	
BENTON OIL	0.00167072	0.00167072	
C. C. RANCK TRUST	0.00643588	0.00643588	
C. H. ELKINS ESTATE	0.20253733	0.20253733	
CLYDE ELKINS	0.04853459	0.04853459	
CRAIG MC DONALD	0.00265495	0.00265495	
DALBY ESTATE	0.02748089	0.02748089	
DICK POLLARD	0.00127980	0.00127980	
DICK R. WEGENER	0.00670619	0.00670619	
DR. W. H. GORDON, SR.	0.00265495	0.00265495	
GILES M. FORBESS	0.06866947	0.06866947	
GORDON ROSE	0.00709672	0.00709672	
I. W. BRISCOE	0.00265495	0.00265495	
JAMES G. MORRIS	0.08514435	0.08514435	
JAMES M. EVANS	0.00265495	0.00265495	
JEROME SHARPE	0.00303254	0.00303254	
JEWEL DALBY BENTON TRUST	0.00135585	0.00135585	
JOE A. RUDBERG	0.00265495	0.00265495	
JOE W. GRAY	0.00132747	0.00132747	
JOE J. REYNOLDS	0.00265495	0.00265495	
KEENEY ROYALTY TRUST	0.00109859	0.00109859	
KLR ASSOC.	0.01789130	0.01789130	
L. D. PRATER	0.00265495	0.00265495	
NELLE JANE BAYLESS	0.01341241	0.01341241	
P. C. RANCK TRUST	0.00643588	0.00643588	
ROBERT RANCK	0.02523222	0.02523222	
ROBERT W. ROSE	0.00265495	0.00265495	
RUTH BAUMGARDNER TRUST	0.01117700	0.01117700	
RUTH S. TERRELL	0.01149151	0.01149151	
RUTH SAMUEL	0.07212555	0.07212555	
SUSAN WOLF	0.00670619	0.00670619	
W. W. RANCK	0.09827293	0.09827293	
W. W. RANCK, JR.	0.01846246	0.01846246	
WEGENER ENTERPRISES	0.01788319	0.01788319	

TOTAL	0.78778164	0.78778164	100.00%

EL RAN, INC. CHAVEROO SAN ANDRES UNIT/SUMMARY
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TOTAL WATERFLOOD PARTICIPATION FOR ALL INTERESTS	RATIFICATIONS RECEIVED	TOTAL PERCENTAGE RECEIVED
RI & ORRI INTEREST OWNERS:			
ADOBE RESOURCES CORP.	0.00467452	0.00467452	
ROY G. BARTON, JR./RI	0.00753920	0.00753920	
ROY G. BARTON, JR./ORRI	0.00048315	0.00048315	
NORMA J. BARTON/RI	0.00484662	0.00484662	
REBECCA J. BENSON	0.00718018	0.00718018	
J. E. BOOTHE ESTATE	0.00098722	0.00098722	
SAMMIE B. BOOTHE(Wife)	0.00098722	0.00098722	
ROBERT P. BYRON/RI	0.00807772	0.00807772	
ROBERT P. BYRON/ORRI	0.00096629	0.00096629	
H. D. CARROLL AND ...	0.00185862	0.00185862	
CELSIUS ENERGY CO./ORRI	0.00338600		
CHAMPLIN PETROLEUM	0.00351547		
NORMA J. CHANLEY/RI	0.00269256	0.00269256	
NORMA J. CHANLEY/ORRI	0.00048315	0.00048315	
MICHAEL S. CITY	0.00053852	0.00053852	
MILDRED F. DACHNER/ORRI	0.00061015	0.00061015	
SUSAN DAWSON/ORRI	0.01159283	0.01159283	
DCM OIL & GAS CO.	0.00243362		
ESTATE/C. H. ELKINS	0.00061702	0.00061702	
CLEM E. GEORGE/ORRI	0.00288230	0.00288230	
MARY VIRGINIA GRIFFIN	0.00410138		
HEMUS, INC.	0.00098722	0.00098722	
HORSESHOE OIL & GAS	0.00474657	0.00474657	
CHARLES HORTON	0.00098722	0.00098722	
PAUL & WILLINE JONES	0.00394891	0.00394891	
E. L. LATHAM, JR.	0.00430909	0.00430909	
JOHN W. LODEWICK	0.00111717	0.00111717	
LAURA B. LODEWICK	0.00335152		
LARYA PATRICIA LODEWICK	0.00111718	0.00111718	
RICHARD B. LODEWICK	0.00111718		
JAMES D. MC LEAN/ORRI	0.00876682	0.00876682	
WILLIAM G. MC PHERON	0.00430810	0.00430810	
FRED G. MIDDLETON	0.00718018	0.00718018	
ELBA MIKOSZ	0.00438339	0.00438339	
MITCHELL ENERGY CORP./ORRI	0.00071284	0.00071284	
ALFRED W. MITCHELL	0.00102535		
KATHRYN MITCHELL	0.00205069		
ROBERT L. MITCHELL	0.00102535		
BETTY T. RANCK	0.00061702	0.00061702	
ROBERT R. RANCK/ORRI	0.01237151	0.01237151	
ROBERT R. RANCK/RI	0.00123403	0.00123403	
W. W. RANCK/ORRI	0.00288230	0.00288230	
W. W. RANCK, JR.	0.00191636	0.00191636	
RANCK TRUST	0.00191636	0.00191636	
REPUBLIC NAT'L BANK	0.01382122	0.01382122	
PAMONA CURRY ROBERTS	0.00148085	0.00148085	

EL RAN, INC. CHAVEROO SAN ANDRES UNIT/SUMMARY
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TOTAL WATERFLOOD PARTICIPATION FOR ALL INTERESTS	RATIFICATIONS RECEIVED	TOTAL PERCENTAGE RECEIVED
PATRICIA MARIE SANCHEZ	0.00049362	0.00049362	
HOWELL SPEAR/ORRI	0.00035642	0.00035642	
DURWOOD A. TERRILL	0.00753665		
UNITED STATES/MINERALS MGMT.	0.03496271	0.03496271	
CHERIE SUMMERS WALCOT	0.00049362		
THEODORE SUMMERS	0.00049362		
W. A. & PATSY YEAGER	0.01005455	0.01005455	

TOTAL RI & ORRI OWNERS	0.21221836	0.18168791	85.61%
=====			
GRAND TOTAL WI & RI OWNERS	1.00000000	0.96946955	96.95%
=====			

EL RAN, INC. CHAVEROO SAN ANDRES UNIT
 LOCATED IN CHAVES & ROOSEVELT COUNTY, NEW MEXICO

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS	TRACT 3 BYRON	TRACT 3/BYRON PARTIC. FACTOR PER INTEREST	TRACT 3/BYRON NRI FOR ALL INTERESTS	TRACT 3/BYRON RATIFICATIONS RECEIVED	TRACT 3/BYRON PERCENTAGE RECEIVED

INVESTORS/WORKING INTEREST:					

C. C. RANCK TRUST	0.00390625	0.00100655	0.00079517	0.00079517	
C. H. ELKINS ESTATE	0.46875000	0.12078606	0.09542099	0.09542099	
CLYDE ELKINS	0.14648000	0.03774452	0.02981817	0.02981817	
DICK R. WEGENER	0.00468750	0.00120786	0.00095421	0.00095421	
JAMES G. MORRIS	0.23438000	0.06039432	0.04771151	0.04771151	
KLR ASSOC.	0.08789000	0.02264722	0.01789130	0.01789130	
NELLE JANE BAYLESS	0.00937500	0.00241572	0.00190842	0.00190842	
R. C. RANCK TRUST	0.00390625	0.00100655	0.00079517	0.00079517	
RUTH BAUMGARDNER TRUST	0.00781250	0.00201310	0.00159035	0.00159035	
SUSAN WOLF	0.00468750	0.00120786	0.00095421	0.00095421	
W. W. RANCK	0.00781250	0.00201310	0.00159035	0.00159035	
W. W. RANCK, JR.	0.00781250	0.00201310	0.00159035	0.00159035	
WEGENER ENTERPRISES	0.01250000	0.00322096	0.00254456	0.00254456	

TOTAL	1.00000000	0.25767692	0.20356476	0.20356476	100.00%

CHAVEROO SAN ANDRES UNIT
SUMMARY

PROPOSED CHAVEROO FIELD WATERFLOOD
PARTICIPATION FACTORS/SUMMARY
APRIL 25, 1988

ROYALTY INTEREST
& WORKING INTEREST

PERCENTAGE OF
RATIFICATIONS
RECEIVED

SUMMARY PER LEASE:

TRACT 1: DACHNER LEASE/RI 0.01928503 100.00%
DACHNER LEASE/WI 0.08495838 100.00%

TOTAL TRACT 1/DACHNER LEASE 0.10424341 100.00%

TRACT 1a: FEDERAL LEASE/RI 0.03075956 100.00%
FEDERAL LEASE/WI 0.10905660 100.00%

TOTAL TRACT 1a/FEDERAL LEASE 0.13981616 100.00%

TRACT 2: U. S. LEASE/RI 0.00552452 62.00% - *Belcher's lease*
U. S. LEASE/WI 0.02673159 100.00%

TOTAL TRACT 2/U. S. LEASE 0.03225611 90.50%

TRACT 3: BYRON LEASE/RI 0.04631028 85.58% - *Dem, Deewood Trust (Estate)*
BYRON LEASE/WI 0.20356476 100.00%

TOTAL TRACT 3/BYRON LEASE 0.24987504 96.97%

TRACT 4: CARROLL LEASE/RI 0.01083906 89.86% - *Deewood Trust Estate*
CARROLL LEASE/WI 0.05506943 100.00%

TOTAL TRACT 4/CARROLL LEASE 0.06590849 98.18%

TRACT 5: GRIFFIN LEASE/RI 0.00000000 0.00% - *Griffin family*
GRIFFIN LEASE/WI 0.03515471 100.00%

TOTAL TRACT 5/GRIFFIN LEASE 0.03515471 75.00%

TRACT 6: ROBERTS LEASE/RI 0.04099467 97.65% - *Cherry James Whitey - Jimmy*
ROBERTS LEASE/WI 0.14756610 100.00%

TOTAL TRACT 6/ROBERTS LEASE 0.18956077 99.48%

TRACT 7: SARAH LEASE/RI 0.00992129 91.31% - *Deewood Trust*
SARAH LEASE/WI 0.04095372 100.00%

TOTAL TRACT 7/SARAH LEASE 0.05087501 98.18%

TRACT 8: YEAGER LEASE/RI 0.01805350 80.16% - *James Ledwith*
YEAGER LEASE/WI 0.08472635 100.00%

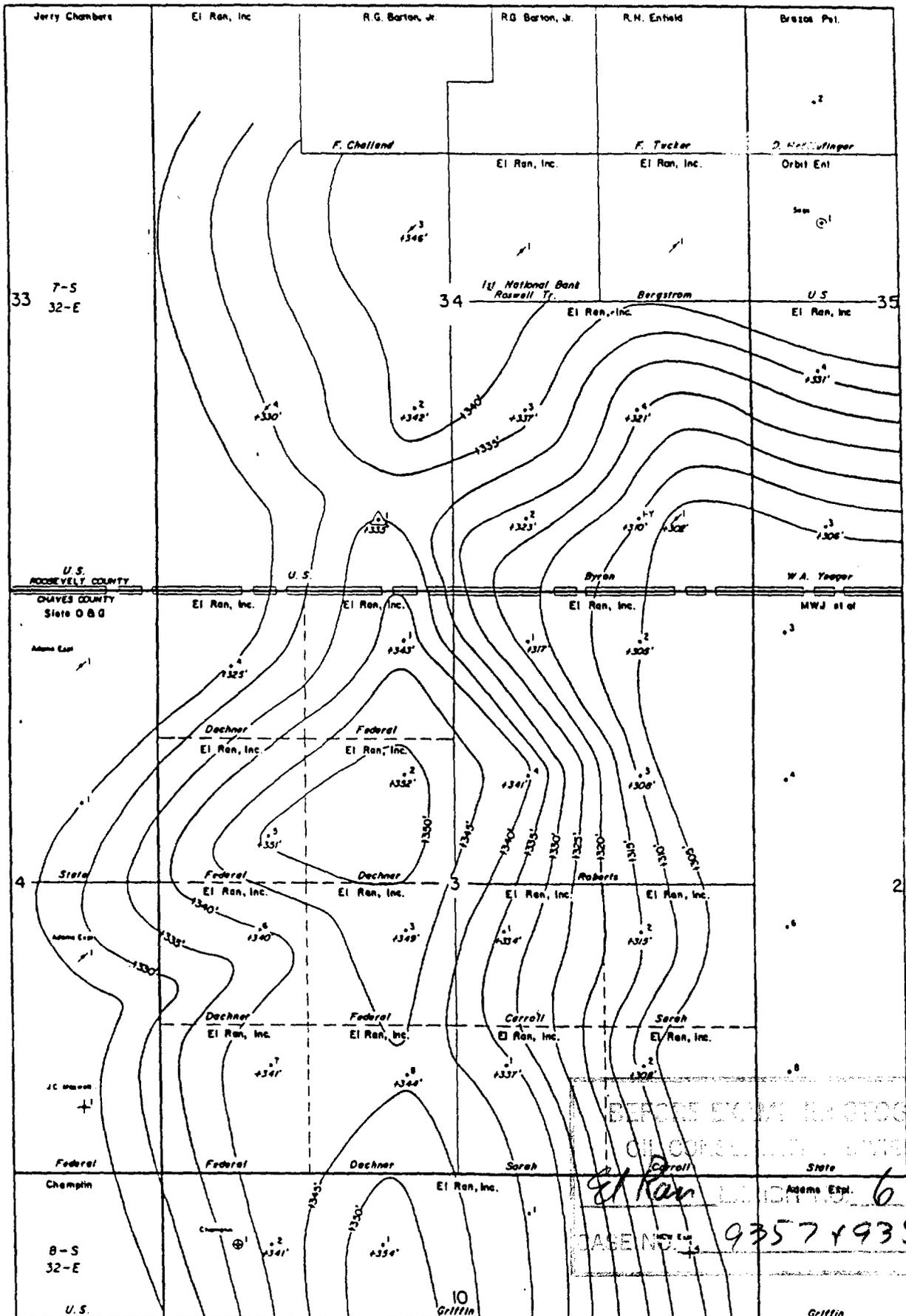
TOTAL TRACT 8/YEAGER LEASE 0.10277985 95.83%

BEFORE EXAMINER STOGNER
GLENN W. STOGNER
GL-Ran SA UNIT NO. 5
CASE NO. 9357 & 9358

CHAVEROO SAN ANDRES UNIT
SUMMARY

PROPOSED CHAVEROO FIELD WATERFLOOD PARTICIPATION FACTORS/SUMMARY APRIL 25, 1988	ROYALTY INTEREST & WORKING INTEREST	PERCENTAGE OF RATIFICATIONS RECEIVED
TOTAL ROYALTY INTEREST	0.18168791	85.61%
TOTAL WORKING INTEREST	0.78778164	100.00%

TOTAL WATERFLOOD PARTICIPATION	0.96946955	96.95%



— LEGEND —

- DEEP WELL
- PRODUCING WELL
- ⋄ PLUGGED & ABANDONED
- ⊕ DRY HOLE

PRELIMINARY WATERFLOOD SURVEY
EL RAN, INC.
CHAVEROO FIELD
 CHAVES AND ROOSEVELT COUNTIES, NEW MEXICO
GEOLOGICAL STRUCTURE MAP
 CONTOURED ON TOP OF SAN ANORES P1 INTERVAL
 CONTOUR INTERVAL - 6 FEET

— SCALE —



BEFORE EXAMINATION FOR
 CIRCULAR AND STATE
 STATE
 El Ran, Inc. Adams Est. 6
 TAGS NO. 9357 + 9358

Exhibit:

6

PRELIMINARY WATERFLOOD STUDY
 EL RAN, INC.
 CHAVERINO FIELD
 CHAVES AND ROOSEVELT COUNTIES, NEW MEXICO

WELL RECORDS

Lense	Well No.	Datum Elev. Feet	Total Depth Feet	Compl. Date	Casing Red. Size/Depth Inches/Feet	Perforated Interval Feet	Top of Pl San Andres		Initial Potential		Current Production			
							Subsurf. Feet	Subsea Feet	HOPD	MCFD	BOPD	MCFD	BMPD	BMPD
Hyron	1-Y	4484	4323	12-28-78	4 1/2/4324	4176-4226 4254-4294	4174 P1 4250 P2	+310 +234	83	36	0	9.9	4.1	9.9
	2	4493	4306	6-26-78	4 1/2/4312	4160-4237 4252-4258	4170 P1 4240 P2	+323 +253	45	170	85	5.0	2.	9.9
	3	4496	4334	1-4-79	4 1/2/4342	4164-4218 4243-4297	4159 P1 4241 P2	+337 +255	89	45	0	17.3	7.3	9.9
	4	4493	4326	5-15-79	4 1/2/4324	4213-4270 4266-4293	4172 P1 4250 P2	+321 +243	91	610	0	6.6	2.8	9.9
Cartoll	1	4491	4371	12-23-77	4 1/2/4372	4160-4258 4261-4278	4189 P1 4259 P2	+302 +232	35	150	30			P & A
	1	4484	4305	10-24-79	4 1/2/4315	4247-4278	4150 P1 4226 P2	+334 +258	80	29	8	5.6	2.4	29.4
Dachner	2	4478	4313	10-31-80	4 1/2/4312	4193-4219 4263-4281	4170 P1 4242 P1	+308 +236	8	0	79	3.0	1.3	15.9
	2	4507	4300	10-21-79	4 1/2/4308	4187-4218 4246-4272	4155 P1 4242 P2	+352 +265	79	39	0	3.7	0.8	0.0
	2	4392	4392	4-?-80	4 1/2/4334	NA 4284-4334	4193 P1 4270 P2	+325 +248	45	NA	81	3.6	0.8	59.7
	2	4348	4348	12-12-80	4 1/2/4345	4180-4200 4246-4304	4258 P1 4235 P2	+340 +263		NA		0	0	0
Federal	2	4359	4359	10-11-80	4 1/2/4360	4176-4182 4234-4274 4293-4295	4148 P1 4220 P2	+344 +272	59	17	18	3.7	0.8	59.7
	2	4293	4293	8-28-79	4 1/2/4310	4191-4216 4242-4276	4163 P1 4240 P2	+343 +266	101	70	0	4.0	2.2	14.1
	2	4391	4391	4-3-80	4 1/2/4388	4164-4182 4234-4263	4143 P1 4218 P2	+349 +274	96	200	0	4.0	2.2	14.1

4578 FOR EXHIBIT SIGNER
 OIL CONSERVATION DIVISION
 El Ran EXHIBIT NO. 37
 CASE NO. 9357 + 9358

WELL RECORDS (Cont'd)

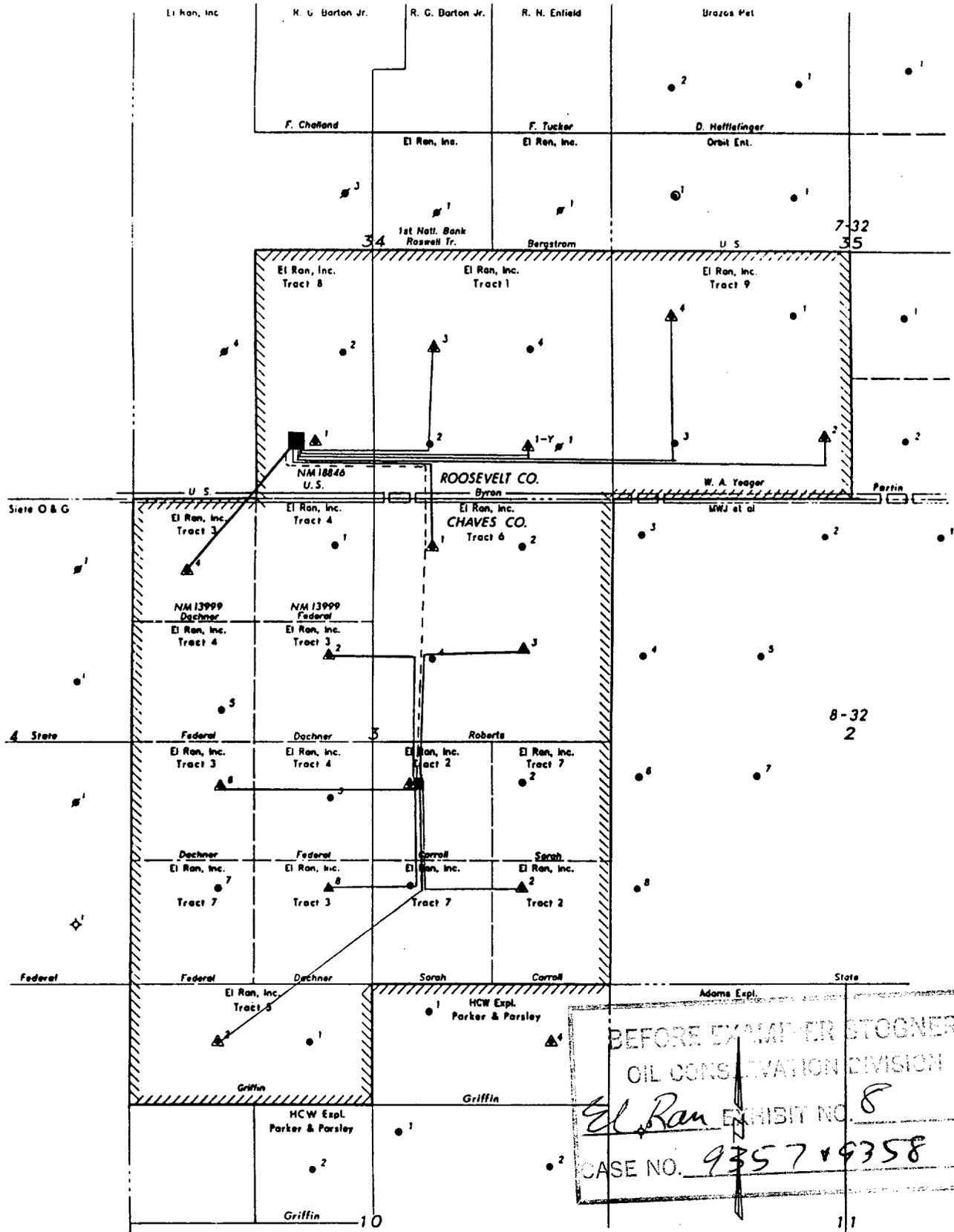
Well No.	Datum Elev. Feet	Total Depth Feet	Compl. Date	Casing Red. Size/Depth Inches/Feet	Perforated Interval Feet	Top of Pl San Andres		Initial Potential		Current Production			
						Subsurf. Feet	Subsea Feet	BOPD	MCFD	BOPD	MCFD	BOPD	MCFD
Federal	4506	4325	12-3-80	4 1/2/4325	4180-4210 4245-4304	4155 P1 4242 P2	+351 +264	93	225	0	4.0	2.2	14.1
Griffin	4497	4324	7-9-83	4 1/2/4329	4168-4196 4219-4291	4143 P1 4212 P2	+354 +285	50	0	52	14.3	13.4	18.2
Robertts	4489	4321	11-1-78	4 1/2/4329	4177-4219 4249-4284	4172 P1 4244 P2	+317 +245	91	90	9	3.3	2.3	1.9
Sarah	4491	4321	5-8-79	4 1/2/4325	4187-4232 4266-4286	4183 P1 4255 P2	+308 +236	97	94	0	3.3	2.3	1.9
U.S.	4487	4385	4-18-80	4 1/2/4389	4172-4198 4228-4282	4147 P1 4223 P2	+337 +261	25	33	10	3.2	2.5	15.7
U.S.	4502	4324	6-1-79	4 1/2/4322	4169-4222 4247-4252 4268-4276	4168 P1 4245 P2	+335 +258	94	788	0	0.4	0.0	63.0
4	4511	4362	10-7-80	4 1/2/4362	4209-4236 4262-4288	4181 P1 4260 P2	+330 +251	45	678	22	0.0	0.0	0.0

Exhibit: '7

PRELIMINARY WATERFLOOD STUDY
 EL RAN, INC.
 CHIAVEROO FIELD
 CHIAVES AND ROOSEVELT COUNTIES, NEW MEXICO

GEOLOGICAL DATA

Lease	Well No.	Gross Pay Pl Zone	Avg. Pot Pl Zone	Avg. Sw Pl Zone	Gross Pay P2 Zone	Avg. Pot P2 Zone	Avg. Sw P2 Zone
Byron	1-Y	43.0	8.0	NA	38.0	15.3	NA
	2	42.0	11.2	NA	25.0	13.0	NA
	3	42.5	10.0	NA	40.0	15.3	NA
	4	14.5	8.0	NA	7.5	9.0	NA
Carroll	1	14.0	8.0	12.0	31.0	10.4	24.5
	2	27.0	9.0	15.0	19.0	11.6	11.2
Dachner	2	15.0	6.5	18.5	14.0	11.3	15.6
	4	38.0	12.3	10.0	57.0	12.0	15.7
	6	19.0	7.0	17.3	21.0	7.5	29.7
	8	23.0	10.2	9.0	58.0	13.5	17.0
Federal	1	15.0	NA	NA	16.0	NA	NA
	3	13.5	5.7	11.0	29.0	11.4	18.3
	5	25.0	6.2	25.0	30.0	10.0	25.6
	7	9.0	7.1	20.0	23.0	10.2	25.3
Griffin	1	32.0	7.7	NA	34.0	9.8	NA
	2	NA	NA	NA	NA	NA	NA
Roberts	1	24.5	5.0	NA	14.5	10.8	NA
	2	47.0	9.8	NA	42.0	16.0	NA
	3	21.0	8.1	NA	17.0	13.2	NA
	4	24.0	5.3	30.0	27.0	12.2	16.6
Sarah	1	16.0	5.0	NA	15.0	9.8	NA
	2	26.0	10.2	NA	37.0	12.0	NA
U.S.	1	10.0	6.1	NA	16.0	15.3	NA
	2	17.0	7.8	18.7	21.0	9.8	26.5
	3	15.0	10.0	NA	19.0	14.2	NA
	4	22.0	7.7	21.1	19.5	10.7	26.0
Total/Avg's		595.0	8.6	17.1	670.5	12.2	20.3



— LEGEND —

- PRODUCING WELL
- ▲ INJECTION WELL
- CENTRAL WATERFLOOD STATION
- SOUTH HEADER STATION
- 1 1/2" INJECTION LINE (FIBERGLASS)
- - - 4" TRUNKLINE (FIBERGLASS)

EL RAN, INC.
 CHAVEROO FIELD UNIT
 CHAVES & ROOSEVELT COUNTY, NEW MEXICO

— SURVEY AREA MAP —

EXHIBIT "A"
 JANUARY 29, 1988

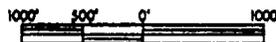


Exhibit: 8



WILSON SURVEYING Co., INC.
 Registered Public Surveyors - Texas - New Mexico - Arizona
 (806) 783-3388 • 1718 AVENUE "N" • LUBBOCK, TEXAS 79401

PETROLEUM ECONOMICS SYSTEM
 EL RAN, INC.
 APRIL 26, 1988

FIELD : CHAVEROO LEASE NAME : CHAVEROO SAN ANDRES UNIT AS OF: 4/ 1/1988
 RESERVIOR : SAN ANDRES ID NUMBER : CASE NO. 9357 & 9358 EVALUATION FOR : EL RAN, INC.
 OPERATOR : EL RAN, INC. COUNTY, STATE : CHAVES & ROOSEVELT ESTATE NAME : CHAVEROO SAN ANDRES UNIT
 OIL PRIMARY YEAR ENDS: DEC 31 LIFETIME: 14.668 yrs. NUMBER OF WELLS : 28

YEAR	OPERATING COSTS	W/P TAX	OTHER TAXES	CAPITAL COSTS	FUTURE NET REV	CUMULATIVE NET REV	DISC NET REV @ 10.000 PCT	CUM DISC NET REV @ 10.000 PCT
1988	144304	0	19548	1024000	-960361	-960361	-938626	-938626
1989	233900	0	35838	0	160833	-799529	139010	-799617
1990	292565	0	47349	0	243857	-555672	192466	-607151
1991	292574	0	185251	0	1823162	1267490	1300688	693537
1992	292583	0	212388	0	2151607	3419097	1393069	2086606
1993	292592	0	178529	0	1777465	5196562	1043043	3129649
1994	292601	0	146610	0	1420026	6616588	754356	3884005
1995	292609	0	120417	0	1124284	7740872	540683	4424688
1996	292618	0	98918	0	879589	8620461	382954	4807642
1997	292627	0	80332	0	662682	9283144	261308	5068950
1998	292636	0	64468	0	474017	9757160	169251	5238201
1999	292644	0	51737	0	322609	10079770	104325	5342526
2000	292653	0	41520	0	201099	10280869	58926	5401452
2001	292662	0	33320	0	103584	10384453	27543	5428995
2002	268281	0	24730	0	25804	10410257	6301	5435296
SUBTOTAL	4157849	0	1340956	1024000	10410257	10410257	5435296	5435296
REMAIN	0	0	0	0	0	0	0	0
TOTAL	4157849	0	1340956	1024000	10410257	10410257	5435296	5435296

CUMULATIVE DISCOUNTED NET REVENUE @ 12.000 PCT 4784148
 14.000 PCT 4211600
 16.000 PCT 3706896
 18.000 PCT 3260922

BETTYE EXAMINER STOGNER
 OIL CONSERVATION DIVISION
El Ran EXHIBIT NO. 9
 CASE NO. 9357 + 9358

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? Yes No

II. Operator: El Ran, Inc.

Address: P.O. Box 911

Contact party: Robert R. Ranck Phone: 806/763-4091

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? yes no
If yes, give the Division order number authorizing the project R7044

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of percolants or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

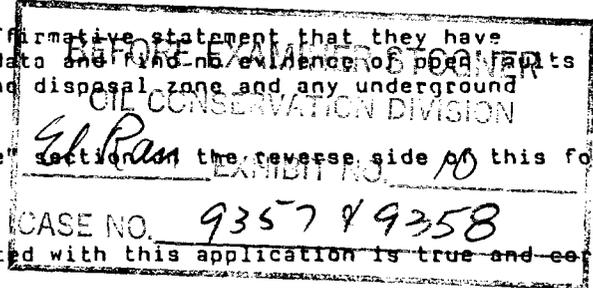
XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Robert R. Ranck Title Vice-President

Signature: Robert R. Ranck Date: 3/23/88

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.



III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

El Ran, Inc.
OPERATOR

Byron
LEASE

1Y
WELL NO.

660' FSL & 990' FEL
FOOTAGE LOCATION

34
SECTION

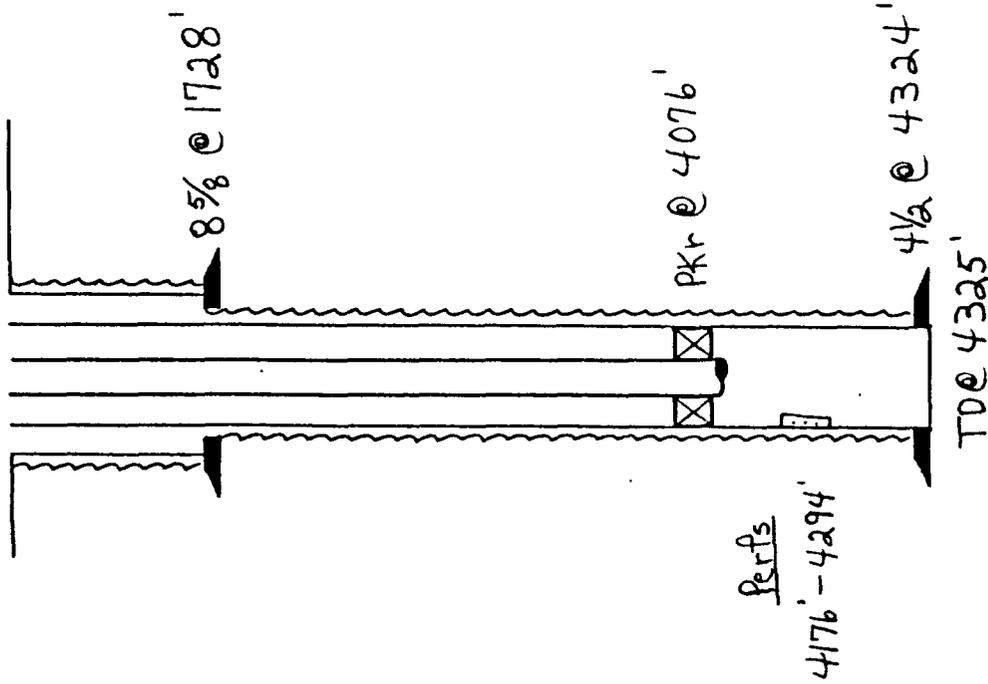
7 South
TOWNSHIP

32 East
RANGE

NMPM
SURVEY

Roosevelt
COUNTY

Schematic



Tabular Data

Surface Casing

Size 8 5/8" Cemented with 600 sxs.

TOC surface feet determined by calculation

Hole Size 12 3/4

Intermediate Casing

Size " Cemented with sxs.

TOC feet determined by

Hole Size

Long String

Size 4 1/2" Cemented with 175 sxs.

TOC 3356 feet determined by calculation

Hole Size 7 7/8

Total Depth 4324

Injection Interval

4176 feet to 4294 feet
(perforated or open-hole, indicate which)

Tubing Size 2 3/8 lined with _____ plastic coating _____ set with a
(material)

Elder T Tension packer at 4076 feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres
2. Name of Field or Pool (if applicable) Chaveroo Field
3. Is this a new well drilled for injection? _____ Yes No
4. If no, for what purpose was the well originally drilled? _____ to produce oil
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used.

_____ No

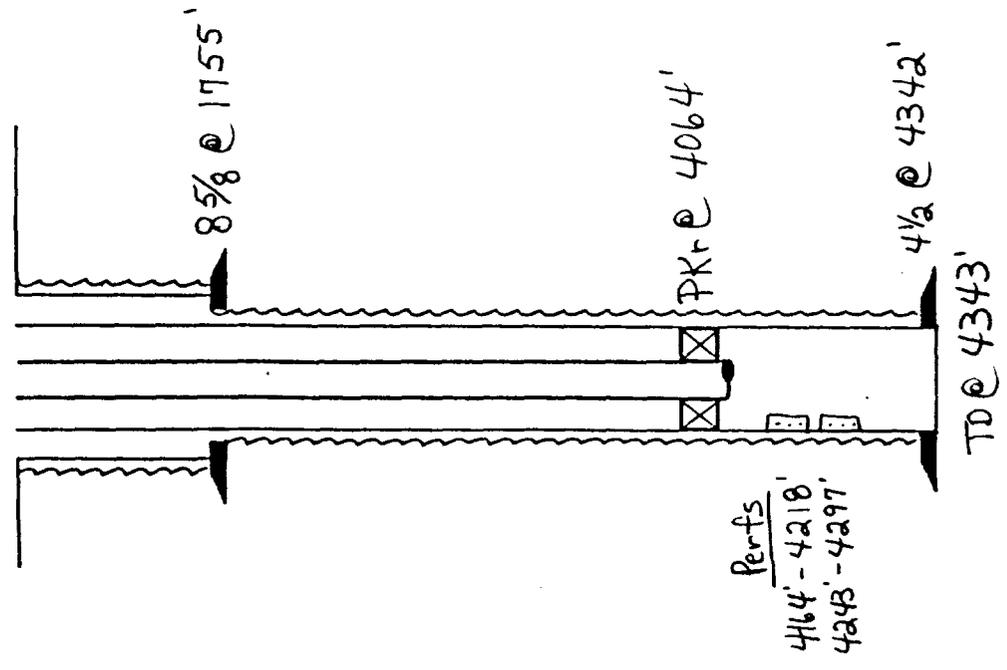
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

_____ None

INJECTION WELL DATA SHEET

Ei Ran, Inc. OPERATOR
 1980' FEL & 1650' FSL FOOTAGE LOCATION
 3 WELL NO.
 Byron LEASE
 34 SECTION
 7 South TOWNSHIP
 32 East RANGE
 NMPM SURVEY
 Roosevelt COUNTY

Schematic



Tabular Data

Surface Casing
 Size 8 5/8 " Cemented with 600 sxs.
 TOC surface feet determined by calculation
 Hole Size 13 3/8
Intermediate Casing
 Size " Cemented with " sxs.
 TOC " feet determined by ".
 Hole Size ".
Long String
 Size 4 1/2 " Cemented with 175 sxs.
 TOC 3374 feet determined by calculation
 Hole Size 7 7/8
 Total Depth 4342
 Injection Interval
 4164 4218
 4243 feet to 4297 feet
 (perforated or open-hole, indicate which)

Tubing Size 2 3/8 lined with _____ plastic coating _____ set with a
(material)

Elder T Tension _____ packer at 4064 _____ feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Chaveroo Field

3. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? to produce oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used.

No

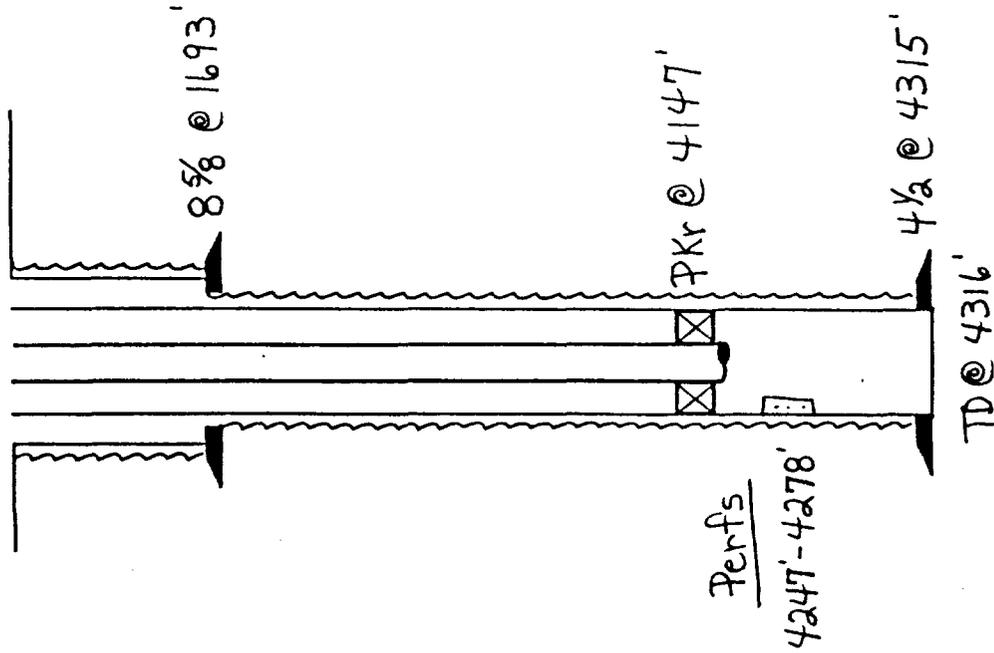
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

None

INJECTION WELL DATA SHEET

El Ran, Inc. Carroll 32 East
 OPERATOR LEASE RANGE
1 2200' FSL & 2200' FEL 8 South 3 32 East
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE
NMPM Chaves
 SURVEY COUNTY

Schematic



Tabular Data

Surface Casing
 Size 8 5/8 " Cemented with 550 sxs.
 TOC surface feet determined by calculation
 Hole Size 12 3/4
Intermediate Casing
 Size " Cemented with sxs.
 TOC feet determined by
 Hole Size .
Long String
 Size 4 1/2 " Cemented with 175 sxs.
 TOC 3347 feet determined by calculation

Hole Size 7 7/8
 Total Depth 4315
 Injection Interval

4247 feet to 4278 feet
 (perforated or open-hole, indicate which)

Tubing Size 2 3/8 lined with plastic coating set with a
(material)

Elder T Tension packer at 4147 feet
(brand and model)

(or describe and other casing-tubing seal).

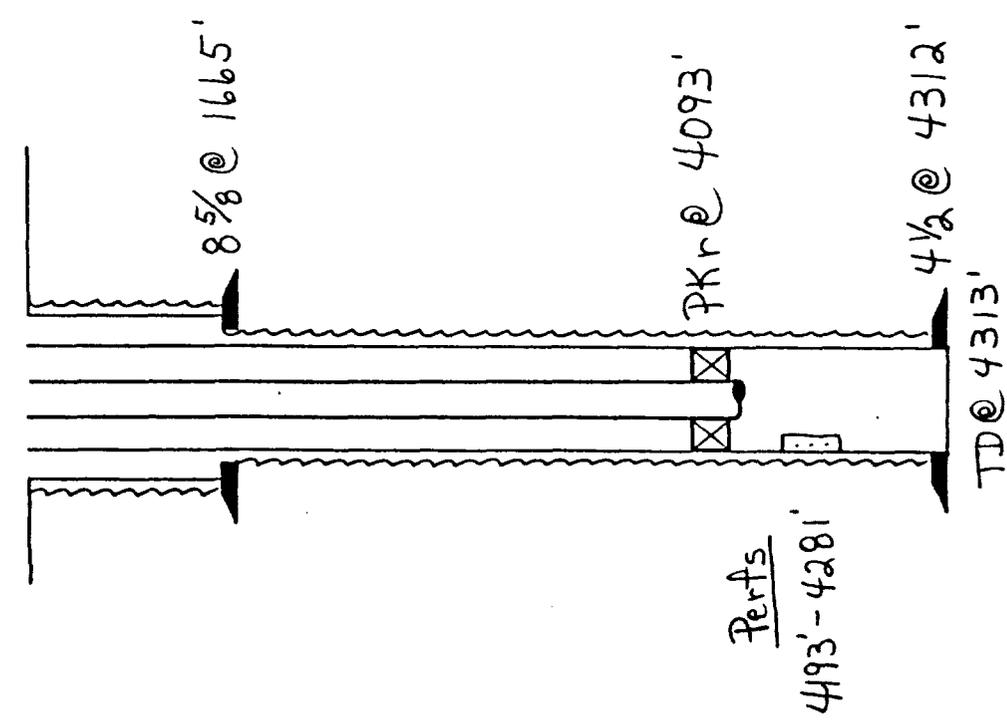
Other Data

1. Name of the injection formation San Andres
2. Name of Field or Pool (if applicable) Chaveroo Field
3. Is this a new well drilled for injection? Yes No
If no, for what purpose was the well originally drilled? to produce oil
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
No
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
None

INJECTION WELL DATA SHEET

El Ran, Inc. OPERATOR
 Carroll LEASE
 990' FSL & 990' FEL FOOTAGE LOCATION
 2 WELL NO.
 SECTION 3
 TOWNSHIP 8 South
 RANGE 32 East
 NMPM SURVEY
 Chaves COUNTY

Schematic



Tabular Data

Surface Casing
 Size 8 5/8 " Cemented with 575 sxs.
 TOC surface feet determined by calculation
 Hole Size 12 3/4
Intermediate Casing
 Size " Cemented with sxs.
 TOC feet determined by
 Hole Size
Long String
 Size 4 1/2 " Cemented with 175 sxs.
 TOC 3344 feet determined by calculation
 Hole Size 7 7/8
 Total Depth 4312
 Injection Interval
 4193 feet to 4281 feet
 (perforated or open-hole, indicate which)

Tubing Size 2 3/8 lined with _____ plastic coating _____ set with a
(material)

Elder T Tension _____ packer at 4093 _____ feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Chaveroo Field

3. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? _____ to produce oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used.

_____ No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

_____ None

INJECTION WELL DATA SHEET

El Ran, Inc.
OPERATOR

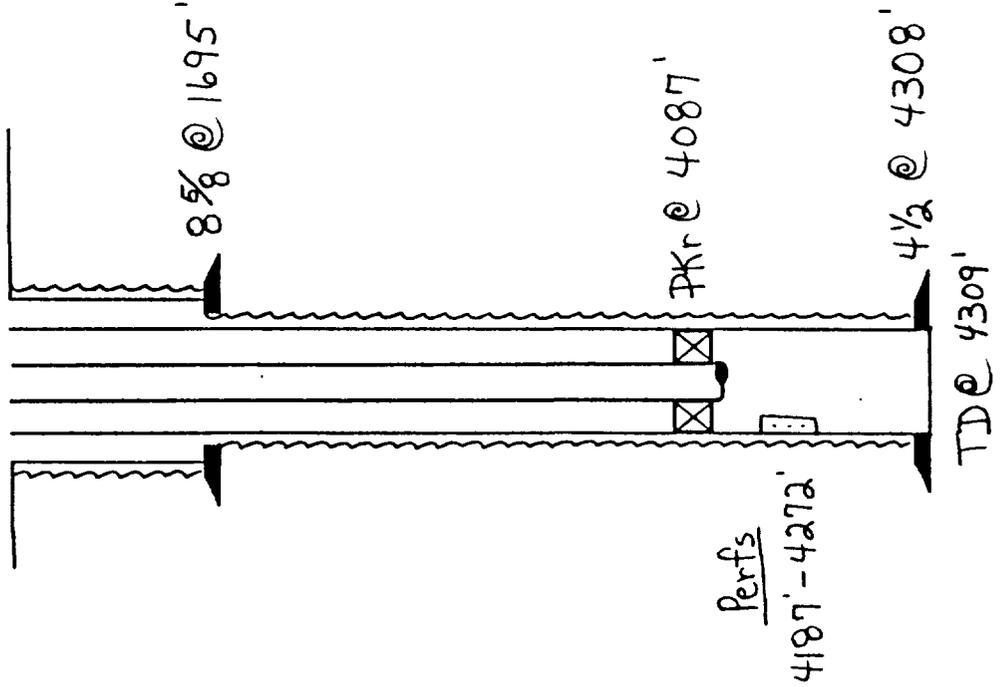
Dachner
LEASE

2 1650' FNL & 2200' FWL
WELL NO. FOOTAGE LOCATION

3 8 South 32 East
SECTION TOWNSHIP RANGE

NMPM Chaves
SURVEY COUNTY

Schematic



Tabular Data

Surface Casing
Size 8 5/8 " Cemented with 550 sxs.
TOC surface feet determined by calculation
Hole Size 12 3/4
Intermediate Casing
Size " Cemented with sxs.
TOC feet determined by
Hole Size .
Long String
Size 4 1/2 " Cemented with 175 sxs.
TOC 3340 feet determined by calculation
Hole Size 7 7/8
Total Depth 4308
Injection Interval
4187 feet to 4272 feet
(perforated or open-hole, indicate which)

Tubing Size 2 3/8 lined with plastic coating set with a
(material)

Elder T Tension packer at 4087 feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Chaveroo Field

3. Is this a new well drilled for injection? Yes No

If no, for what purpose was the well originally drilled? to produce oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used.

No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

None

INJECTION WELL DATA SHEET

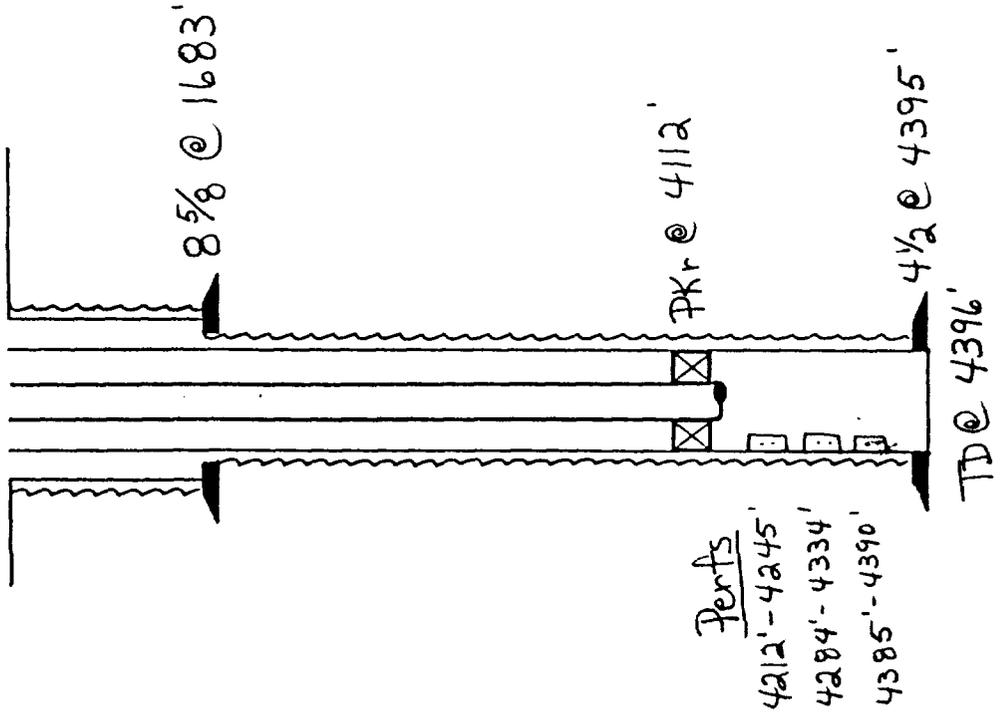
El Ran, Inc. Dachner
 OPERATOR LEASE
4 660' FNL & 660' FWL 3 8 South 32 East
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE
NMPM Chaves
 SURVEY COUNTY

Tabular Data

Surface Casing
 Size 8 5/8 " Cemented with 575 sxs.
 TOC surface feet determined by calculation
 Hole Size 12 1/2
Intermidiate Casing
 Size " Cemented with sxs.
 TOC feet determined by
 Hole Size .
Long String
 Size 4 1/2 " Cemented with 175 sxs.
 TOC 3427 feet determined by calculation

Hole Size 7 5/8
 Total Depth 4395
 Injection Interval
 4212 4245
 4284 4334
 4285 4390 feet
 (perforated or open-hole, indicate which)

Schematic



Tubing Size 2 3/8 lined with _____ plastic coating _____ set with a
(material)

Elder T Tension _____ packer at 4112 _____ feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Chaveroo Field

3. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? _____ to produce oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used.

_____ No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

_____ None

Tubing Size 2 3/8 lined with plastic coating set with a
(material)

Elder T Tension packer at 4080 feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres
2. Name of Field or Pool (if applicable) Chaveroo Field
3. Is this a new well drilled for injection? Yes No
If no, for what purpose was the well originally drilled? to produce oil
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

None

INJECTION WELL DATA SHEET

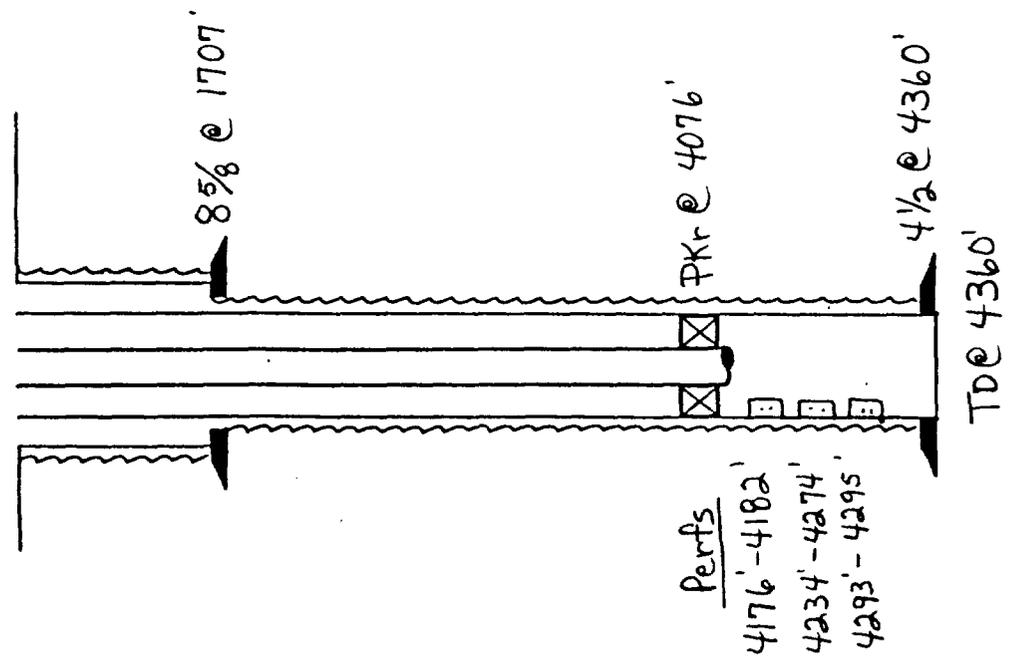
El Ran, Inc. Dachner
OPERATOR LEASE
8 990' FSL & 2200' FWL 3 8 South 32 East
WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE
NMPM Chaves
SURVEY COUNTY

Tabular Data

Surface Casing
 Size 8 5/8 " Cemented with 575 sxs.
 TOC surface feet determined by calculation
 Hole Size 12 1/4
Intermeditate Casing
 Size _____ " Cemented with _____ sxs.
 TOC _____ feet determined by _____
 Hole Size _____
Long String
 Size 4 1/2 " Cemented with 175 sxs.
 TOC 3392 feet determined by calculation
 Hole Size _____

Total Depth 4360
 Injection Interval
 4293
 4234
 4176 feet to 4182 feet
 (perforated or open-hole, indicate which)

Schematic



Tubing Size 2 3/8 lined with _____ plastic coating _____ set with a
(material)

Elder T Tension packer at 4076 _____ feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Chaveroo Field

3. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? _____ to produce oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used.

_____ No

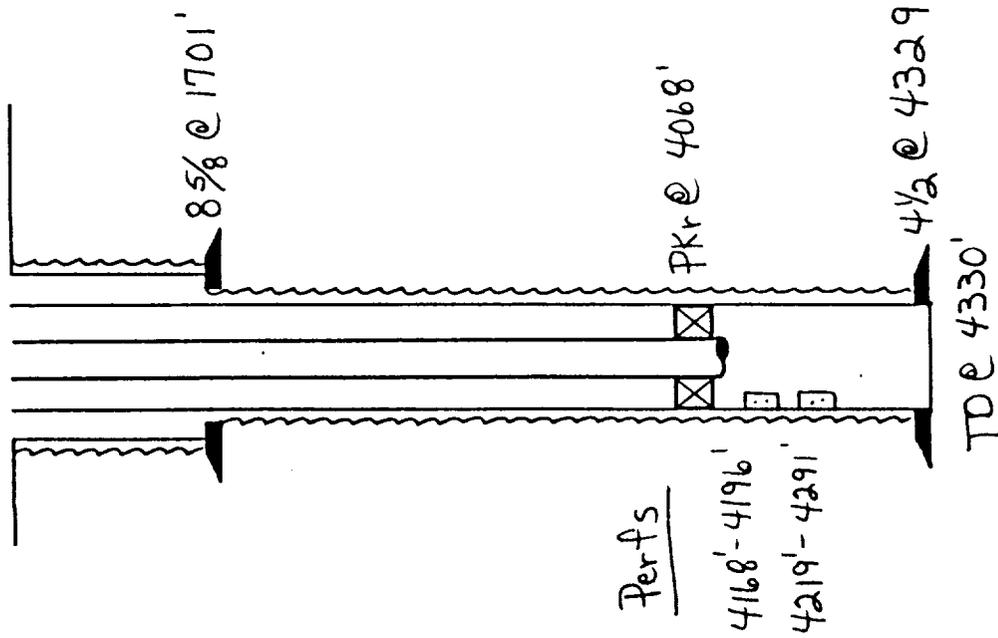
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

_____ None

INJECTION WELL DATA SHEET

El Ran, Inc. Griffin Chaves
 OPERATOR LEASE COUNTY
2 660' FSL & 1980' FWL 10 8 South 32 East
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE
NMPM Chaves
 SURVEY COUNTY

Schematic



Tabular Data

Surface Casing
 Size 8 5/8 " Cemented with 575 sxs.
 TOC surface feet determined by calculation
 Hole Size 12 1/4
Intermediate Casing
 Size " Cemented with sxs.
 TOC feet determined by
 Hole Size
Long String
 Size 4 1/2 " Cemented with 300 sxs.
 TOC 2670 feet determined by calculation
 Hole Size 7 7/8
 Total Depth 4329
 Injection Interval
4168 4196
4219 feet to 4291 feet
 (perforated or open-hole, indicate which)

Tubing Size 2 3/8 lined with plastic coating set with a
 (material)

Elder T Tension packer at 4068 feet
 (brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres
2. Name of Field or Pool (if applicable) Chaveroo Field
3. Is this a new well drilled for injection? Yes No
4. If no, for what purpose was the well originally drilled? to produce oil

Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).
No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.
None

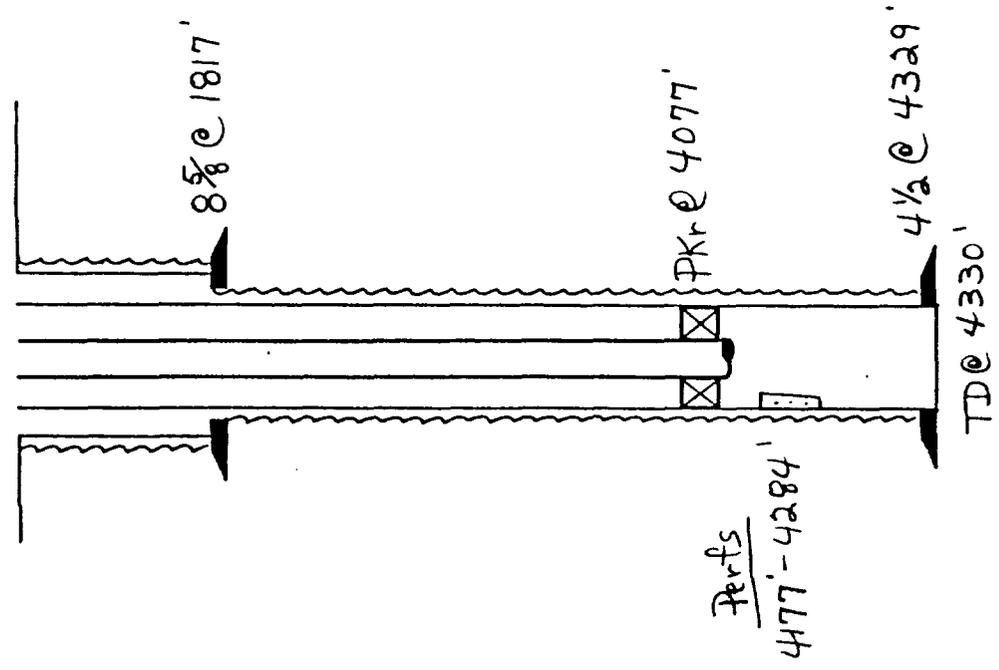
INJECTION WELL DATA SHEET

El Ran, Inc. Roberts
 OPERATOR LEASE
 1 440' FNL & 1980' FEL 3 8 South 32 East
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE
 NMPM Chaves
 SURVEY COUNTY

Tabular Data

Surface Casing
 Size 8 5/8 " Cemented with 600 sxs.
 TOC surface feet determined by calculation
 Hole Size 13 3/8
Intermediate Casing
 Size " Cemented with sxs.
 TOC feet determined by
 Hole Size .
Long String
 Size 4 1/2 " Cemented with 175 sxs.
 TOC 3361 feet determined by calculation
 Hole Size 7 7/8
 Total Depth 4329
 Injection Interval
4177 feet to 4284 feet
 (perforated or open-hole, indicate which)

Schematic



Tubing Size 2 3/8 lined with _____ plastic coating _____ set with a
(material)

Elder T Tension packer at 4077 _____ feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Chaveroo Field

3. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? _____ to produce oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used.

_____ No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

_____ None

INJECTION WELL DATA SHEET

El Ran, Inc.
OPERATOR

Roberts
LEASE

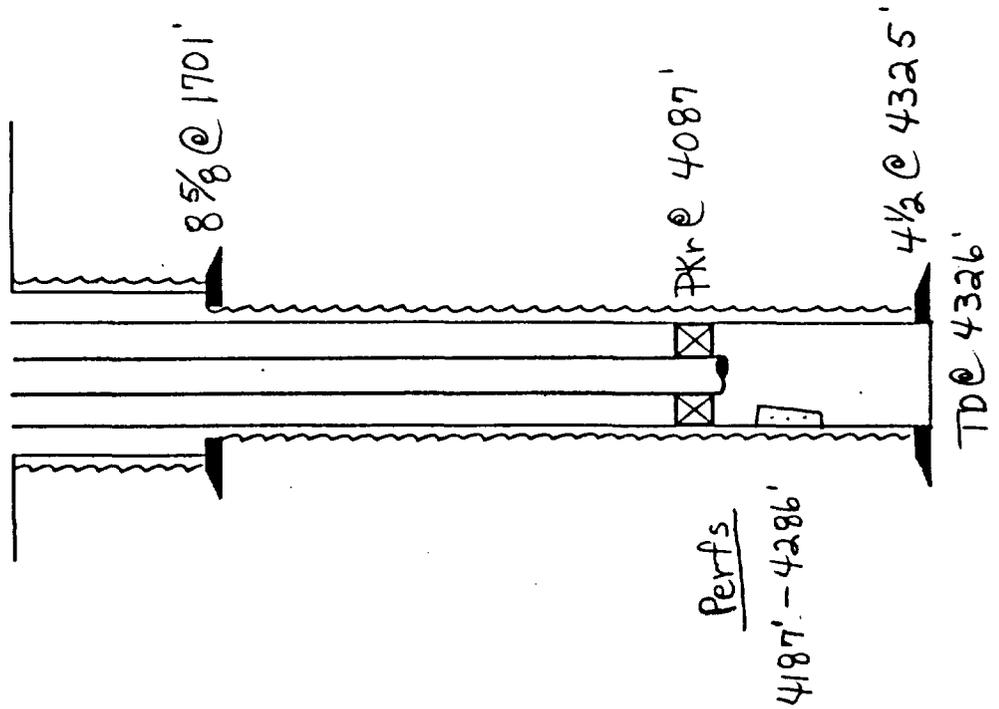
3 1650' FNL & 990' FEL
FOOTAGE LOCATION

3 SECTION 8 South TOWNSHIP 32 East RANGE

NMPM
SURVEY

Chaves
COUNTY

Schematic



Tabular Data

Surface Casing
 Size 8 5/8 " Cemented with 550 sxs.
 TOC surface feet determined by calculation
 Hole Size 12 1/4
Intermeditate Casing
 Size " Cemented with sxs.
 TOC feet determined by
 Hole Size .
Long String
 Size 4 1/2 " Cemented with 175 sxs.
 TOC 3357 feet determined by calculation
 Hole Size 7 7/8
 Total Depth 4325
 Injection Interval
4187 feet to 4286 feet
 (perforated or open-hole, indicate which)

Tubing Size 2 3/8 lined with _____ plastic coating _____ set with a
(material)

Elder T Tension packer at 4087 _____ feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres
2. Name of Field or Pool (if applicable) Chaveroo Field
3. Is this a new well drilled for injection? _____ Yes No
If no, for what purpose was the well originally drilled? _____ to produce oil
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used).

_____ No
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

_____ None

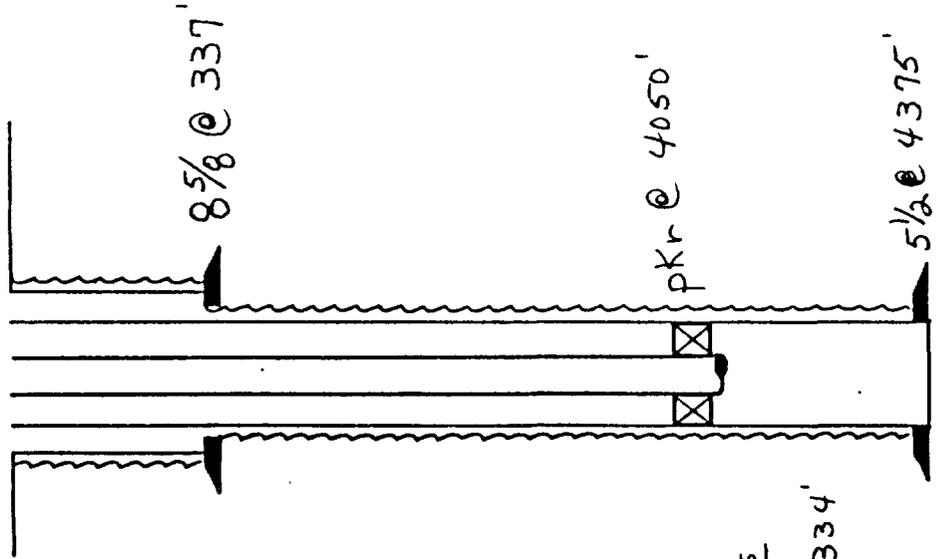
INJECTION WELL DATA SHEET

El Ran, Inc. OPERATOR Yeager LEASE

2 WELL NO. 660' FNL & 2310' FSL SECTION 35 TOWNSHIP 7 South RANGE 32 East

FOOTAGE LOCATION NMPM SURVEY Roosevelt COUNTY

Schematic



Tabular Data

Surface Casing
 Size 8 5/8 " Cemented with 575 sxs.
 TOC surface feet determined by calculation
 Hole Size 12 1/4
Intermediate Casing
 Size " Cemented with sxs.
 TOC feet determined by
 Hole Size .
Long String
 Size 5 1/2 " Cemented with 175 sxs.
 TOC 3407 feet determined by calculation
 Hole Size 7 7/8
 Total Depth 4375
 Injection Interval
4150 feet to 4334 feet
 (perforated or open-hole, indicate which)

Tubing Size 2 3/8 lined with plastic coating set with a
(material)

Elder T Tension packer at 4050 feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres
2. Name of Field or Pool (if applicable) Chaveroo Field
3. Is this a new well drilled for injection? Yes No
If no, for what purpose was the well originally drilled? to produce oil
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used.

No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

None

INJECTION WELL DATA SHEET

El Ran, Inc.
OPERATOR

Yeager
LEASE

4 1980' FSL & 660' FWL
WELL NO. FOOTAGE LOCATION

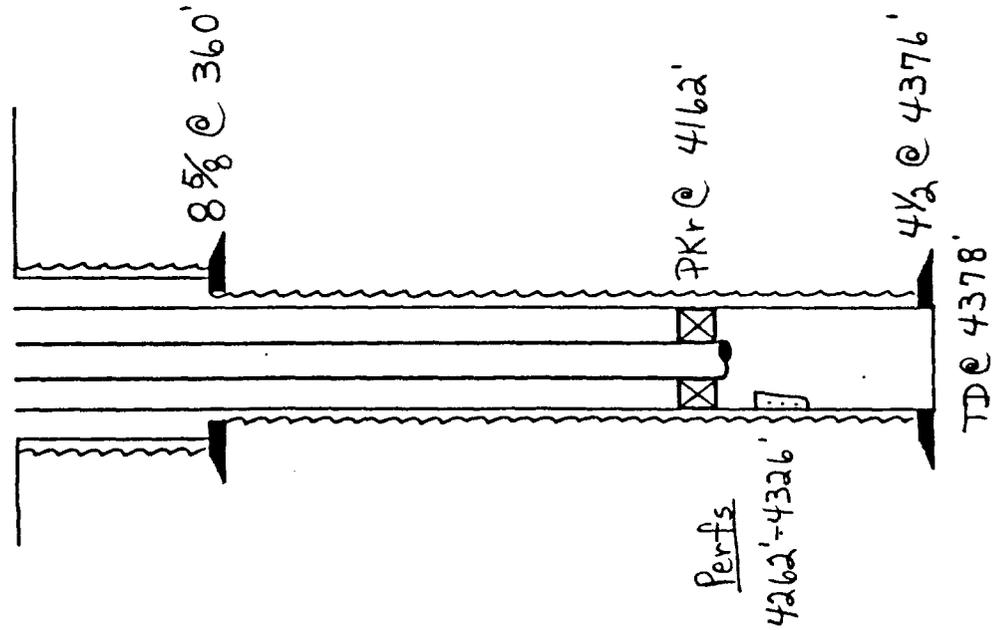
35
SECTION

7 South 32 East
TOWNSHIP RANGE

NMPM
SURVEY

Roosvelt
COUNTY

Schematic



Tabular Data

Surface Casing

Size 8 5/8 " Cemented with 225 sxs.

TOC surface feet determined by calculation

Hole Size 13 3/4

Intermediate Casing

Size " Cemented with sxs.

TOC feet determined by .

Hole Size .

Long String

Size 4 1/2 " Cemented with 125 sxs.

TOC 3685 feet determined by calculation

Hole Size 7 7/8

Total Depth 4376

Injection Interval

4262 feet to 4326 feet
(perforated or open-hole, indicate which)

Tubing Size 2 3/8 lined with _____ plastic coating _____ set with a
(material)

Elder T Tension packer at 4162 _____ feet
(brand and model)

(or describe and other casing-tubing seal).

Other Data

1. Name of the injection formation San Andres

2. Name of Field or Pool (if applicable) Chaveroo Field

3. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? _____ to produce oil

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used.

_____ No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

_____ None

* Amended

State of New Mexico
Form C-108
APPLICATION FOR AUTHORIZATION TO INJECT

VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: Arens Petroleum
Well No: # 1 Allie Partin
Well Type: oil
Date Drilled: 4-12-72
Location: 660' FSL & 660' FEL of Sec 35-75-32E
Record of Completion:
TD: 4400' Surf Csg: 8 5/8 @ 365' Prod Csg: 4 1/2 @ 4400'
Perforations: 4271' - 4317'

Company: Arens Petroleum
Well No: # 2 Allie Partin
Well Type: oil
Date Drilled: 6-21-72
Location: 660' FSL & 1980' FEL of Sec. 35-75-32E
Record of Completion:
TD: 4370' Surf Csg: 8 5/8 @ 364' Prod Csg: 4 1/2 @ 4370'
Perforations: 4273' - 4320.5'

Company: Chambers & Kennedy (Union Tex)
Well No: # 2 Shell-Cone-Partin
Well Type: oil
Date Drilled: 1-6-70
Location: 1980' FSL & 660' FEL of Sec 35-75-32E
Record of Completion:
TD: 4380' Surf Csg: 8 5/8 @ 375' Prod Csg: 5 1/2 @ 4380'
Perforations: 4184' - 4338'

Amended

State of New Mexico
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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: MWD Producing
Well No: # 2 Chaveroo State
Well Type: oil
Date Drilled: 11-8-75
Location: 330' FNL : 2310' FWL of Sec 2-8 S-3 2 E
Record of Completion:
TD: 4386' Surf Csg: 8 5/8 @ 368 Prod Csg: 4 1/2 @ 4386
Perforations: 4303 - 4341'

Company: _____
Well No: _____
Well Type: _____
Date Drilled: _____
Location: _____
Record of Completion:
TD: _____ Surf Csg: _____ Prod Csg: _____
Perforations: _____

Company: _____
Well No: _____
Well Type: _____
Date Drilled: _____
Location: _____
Record of Completion:
TD: _____ Surf Csg: _____ Prod Csg: _____
Perforations: _____

State of New Mexico
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*Amended 11/81
10/28/81
11/11/81
11/11/81
11/11/81*

VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: MWD Producing Co.
Well No: Chaveroo State # 8
Well Type: oil, producing
Date Drilled: 4-2-81
Location: 990' FSL; 330' FWL of Sec 2-85-32E
Record of Completion:

TD: 4330' Surf Csg: 8 $\frac{5}{8}$ @1785' Prod Csg: 4 $\frac{1}{2}$ @4330'
Perforations: 4202' - 4318

Company: MWD Producing Co.
Well No: Chaveroo State # 6
Well Type: oil, producing
Date Drilled: 3-18-81

Location: 2310' FSL; 330' FWL of Sec. 2-85-32E
Record of Completion:

TD: 4330' Surf Csg: 8 $\frac{5}{8}$ @1815' Prod Csg: 4 $\frac{1}{2}$ @4330'
Perforations: 4202' - 4320'

Company: MWD Producing Co
Well No: Chaveroo state # 5
Well Type: Oil, producing
Date Drilled: 2-9-79

Location: 1650' FNL; 1650' FWL of Sec 2-85-32E
Record of Completion:

TD: 4380' Surf Csg: 8 $\frac{5}{8}$ @1777' Prod Csg: 4 $\frac{1}{2}$ @4380'
Perforations: 4221' - 4313'

State of New Mexico
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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: MWD Producing Co
Well No: Chaveroo State # 4
Well Type: oil, producing
Date Drilled: 1-18-79
Location: 1650' FNL ; 330' FWL of Sec 2 - 85-32E
Record of Completion:
TD: 4380' Surf Csg: 8 $\frac{5}{8}$ @1769' Prod Csg: 4 $\frac{1}{2}$ @4380'
Perforations: 4205' - 4311'

Company: MWD Producing Co
Well No: Chaveroo State # 3
Well Type: oil, producing
Date Drilled: 5-24-78
Location: 330' FNL ; 330' FWL of Sec 2 - 85-32E
Record of Completion:
TD: 4380' Surf Csg: 8 $\frac{5}{8}$ @1812' Prod Csg: 4 $\frac{1}{2}$ @4368'
Perforations: 4208' - 4317'

Company: Chambers ; Kennedy (Union Tex (sun))
Well No: Shell-Cone-Partin #1
Well Type: oil, producing
Date Drilled: 7-12-69
Location: 1980' FSL ; 1980' FEL of Sec 35-75-32E
Record of Completion:
TD: 4436 Surf Csg: 8 $\frac{5}{8}$ @401 Prod Csg: 4 $\frac{1}{2}$ @4436
Perforations: 4182' - 4340'

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: Southwestern Nat'l Gas (Orbit)

Well No: Shell 35 Fed #1

Well Type: oil, SI

Date Drilled: 4-12-68

Location: 1980' FNL; 660' FWL of Sec 35-75-32E

Record of Completion: 8 5/8 @ 4710'

TD: 9097' Surf Csg: 13 3/8 @ 420' Prod Csg: 4 1/2 @ 8855'

Perforations: 4194' - 4371'

Company: Southwestern Nat'l Gas (Orbit)

Well No: Shell 35 Fed #2

Well Type: oil, producing

Date Drilled: 8-12-68

Location: 1980' FNL; 1980' FWL of Sec 35-75-32E

Record of Completion:

TD: 4475' Surf Csg: 7 @ 1799' Prod Csg: 4 1/2 @ 4475'

Perforations: 4192' - 4380'

Company: Adams Exploration

Well No: State '4' #1

Well Type: oil, P: A'd 4-1-82

Date Drilled: 4-23-80

Location: 660' FNL; 660' FEL of Sec 4-85-32E

Record of Completion:

TD: 4380' Surf Csg: 8 5/8 @ 1868' Prod Csg: 4 1/2 @ 4378'

Perforations: 4426' - 4344'

Plugs
CIBPE 4155' w/20 sks
CIBPE 1675 w/35 sks
10 sks @ surface

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: Siete Oil & Gas
Well No: Chaveroo State #1
Well Type: Oil Producing "OWWO"
Date Drilled: 12-12-83
Location: 1980' FNL: 660' FEL of sec 4-85-32E
Record of Completion:

TD: 4467' Surf Csg: 85/8 @ 1808' Prod Csg: 4 1/2 @ 4467

Perforations: 4225' - 4362 1/2'

Company: Adams Exploration Co.

Well No: Federal #1

Well Type: oil, P: A/D 9-5-81

Date Drilled: 7-27-80

Location: 1980' FSL: 660' FEL of sec 4-85-32E

Record of Completion:

TD: 4380' Surf Csg: 85/8 @ 1853' Prod Csg: 4 1/2 @ 4378'

Perforations: 4429' - 4316'

Company: J.C. Maxwell

Well No: Superior-Federal #1

Well Type: Dry & Abandoned

Date Drilled: 1-10-66

Location: 660' FSL: 660' FEL of sec 4-85-32E

Record of Completion:

TD: 4449' Surf Csg: 85/8 @ 376' Prod Csg: 4 1/2 @ 4440'

Perforations: _____

Plugs
CIBP @ 4200'
40 sks - 3200' - 3150'
48 sks - 1900' - 1800'
20 sks @ surface

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: Brazos Petroleum
Well No: Hefflefinger #1
Well Type: oil, producing
Date Drilled: 12-30-83
Location: 860' FNL; 1980' FWL of sec 35-75-32E
Record of Completion:
TD: 4400' Surf Csg: 8 $\frac{5}{8}$ @500' Prod Csg: 4 $\frac{1}{2}$ @4400
Perforations: 4225' - 4248'

Company: Hilliard & Smith
Well No: Griffin #1
Well Type: Dry; Abandoned
Date Drilled: 9-20-69
Location: 660' FNL; 660' FWL of sec 10-85-32E
Record of Completion:
TD: 10,900' Surf Csg: 13 $\frac{3}{8}$ @378' Prod Csg: 8 $\frac{5}{8}$ @3501
Perforations: _____

Company: Adams Exploration (HCW Expl.)
Well No: Griffin #2
Well Type: oil, producing
Date Drilled: 4-26-87
Location: 2030' FNL; 1980' FWL of sec 10-85-32E
Record of Completion:
TD: 4284' Surf Csg: 8 $\frac{5}{8}$ @1850' Prod Csg: 4 $\frac{1}{2}$ @4284
Perforations: 4151' - 4245'

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: Adams Exploration Plugs
Well No: Hooper #1 CIBPE 4125
Well Type: oil, P.A'd 3-13-82 25SKS-3290'-3170'
Date Drilled: 3-27-81 40SKS - Top 1810'
Location: 1650' FNL; 2310' FEL of Sec 10-8S-32E 25SKS - Top 1750'
Record of Completion: 50SKS - Top 1500'
TD: 4338' Surf Csg: 13 3/8 @ 96 ^{8 5/8 @ 1810'} Prod Csg: 4 1/2 @ 4335' 5SKS - 1500 - 1482
Perforations: 4224' - 4304' 10SKS - e surface

Company: Adams Exploration
Well No: Griffin #4 SWD
Well Type: SWD
Date Drilled: 7-8-81
Location: 660' FNL; 660' FEL
Record of Completion:
TD: 4315' Surf Csg: 8 5/8 @ 1808 Prod Csg: 4 1/2 @ 4313
Perforations: 4176' - 4210'

Company: Adams Exploration
Well No: Griffin #1
Well Type: oil producing
Date Drilled: 11-9-80
Location: 330' FNL; 1980' FEL of Sec 10-8S-32E
Record of Completion:
TD: 4400 Surf Csg: 8 5/8 @ 1842' Prod Csg: 4 1/2 @ 4400'
Perforations: 4176' - 99', 4242' - 4313'

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: El Ran
Well No: Antelope Federal #1
Well Type: oil, P: A' d 5-22
Date Drilled: 12-6-83
Location: 1650' FWL : 2310' FSL

PIUGS
CIBP @ 4100' w/35 sxs
Spot 35 sxs @ 1750'
Spot 15 sxs @ surf.

Record of Completion:

TD: 4315' Surf Csg: 85/8 @ 1737 Prod Csg: 4 1/2 @ 4309
Perforations: 4137' - 4262'

Company: El Ran
Well No: Byron #2
Well Type: oil, producing
Date Drilled: 6-1-78
Location: 660' FSL : 1980' FEL

Record of Completion:

TD: 4312 Surf Csg: 85/8 @ 310 Prod Csg: 4 1/2 @ 4312
Perforations: 4160' - 4258'

Company: El Ran
Well No: Byron #4
Well Type: oil, producing
Date Drilled: 5-4-79
Location: 1650' FSL : 990' FEL

Record of Completion:

TD: 4325' Surf Csg: 85/8 @ 1702' Prod Csg: 4 1/2 @ 4324'
Perforations: 4213' - 4293'

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: El Ran

Well No: Federal #1

Well Type: oil, producing

Date Drilled: 8-15-79

Location: 440' FNL : 2200' FWL

Record of Completion:

TD: 4298' Surf Csg: 8 $\frac{5}{8}$ @1710 Prod Csg: 4 $\frac{1}{2}$ @4310

Perforations: 4242' - 4276'

Company: El Ran

Well No: Federal #3

Well Type: oil, producing

Date Drilled: 3-24-80

Location: 2200' FSL : 2200' FWL

Record of Completion:

TD: 4396 Surf Csg: 8 $\frac{5}{8}$ @1673' Prod Csg: 4 $\frac{1}{2}$ 4388'

Perforations: 4164' - 4263'

Company: El Ran

Well No: Federal #5

Well Type: oil, producing

Date Drilled: 11-20-80

Location: 2200' FNL : 990' FWL

Record of Completion:

TD: 4325 Surf Csg: 8 $\frac{5}{8}$ @1749' Prod Csg: 4 $\frac{1}{2}$ @4325

Perforations: 4180' - 4304'

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: El Ran

Well No: Federal # 7

Well Type: oil producing

Date Drilled: 10-9-80

Location: 990' FSL : 990' FWL

Record of Completion:

TD: 4330 Surf Csg: 85/8 @ 1704' Prod Csg: 4 1/2 @ 4329

Perforations: 4187' - 4289'

Company: El Ran

Well No: Griffin # 1

Well Type: oil, producing

Date Drilled: 6-26-83

Location: 660' FNL : 1980' FWL

Record of Completion:

TD: 4330' Surf Csg: 85/8 @ 1701' Prod Csg: 4 1/2 @ 4329'

Perforations: 4168' - 4291'

Company: El Ran

Well No: Roberts # 2

Well Type: oil, producing

Date Drilled: 2-2-79

Location: 440' FNL : 990' FEL

Record of Completion:

TD: 4333' Surf Csg: 85/8 @ 1725' Prod Csg: 4 1/2 @ 4332

Perforations: 4192' - 4302'

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: El Ran
Well No: Roberts #4
Well Type: oil, producing
Date Drilled: 8-23-79
Location: 1650' FNL : 1980' FEL
Record of Completion:
TD: 4312' Surf Csg: 8 $\frac{5}{8}$ @ 1667' Prod Csg: 4 $\frac{1}{2}$ @ 4311'
Perforations: 4180' - 4274'

Company: El Ran
Well No: Yeager #1
Well Type: oil, producing
Date Drilled: 1-29-70
Location: 1980' FSL : 1980' FWL

Record of Completion:
TD: 4420' Surf Csg: 8 $\frac{5}{8}$ @ 355' Prod Csg: 4 $\frac{1}{2}$ @ 4373'
Perforations: 4153' - 4353'

Company: El Ran
Well No: Yeager #2
Well Type: oil, producing
Date Drilled: 11-10-73
Location: 660' FSL : 2310' FWL

Record of Completion:
TD: 4400' Surf Csg: 8 $\frac{5}{8}$ @ 337' Prod Csg: 5 $\frac{1}{2}$ @ 4375'
Perforations: 4150' - 4334'

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: El Ran

Well No: Yeager #3

Well Type: oil, producing

Date Drilled: 3-17-75

Location: 660' FSL ; 660' FWL

Record of Completion:

TD: 4384 Surf Csg: 8 $\frac{5}{8}$ @330' Prod Csg: 5 $\frac{1}{2}$ @4379

Perforations: 4207' - 4341'

Company: El Ran

Well No: Sarah #1

Well Type: oil, producing

Date Drilled: 4-8-80

Location: 990' FSL ; 2200' FEL

Record of Completion:

TD: 4390' Surf Csg: 8 $\frac{5}{8}$ @1683' Prod Csg: 4 $\frac{1}{2}$ @4390'

Perforations: 4172' - 4284'

Company: El Ran

Well No: Sarah #2

Well Type: oil, producing

Date Drilled: 4-16-80

Location: 990' FEL ; 2200' FSL

Record of Completion:

TD: 4395' Surf Csg: 8 $\frac{5}{8}$ @1680' Prod Csg: 4 $\frac{1}{2}$ @4394'

Perforations: 4203' - 4286'

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VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: El Ran

Well No: Bergstrom #1

Well Type: oil, P: A'd 4-16-85

Date Drilled: 1-17-80

Location: 2200' FNL : 660' FEL

Record of Completion:

TD: 4324' Surf Csg: 8 $\frac{5}{8}$ @1700' Prod Csg: 4 $\frac{1}{2}$ @4323'

Perforations: 4142' - 4294'

Company: El Ran

Well No: Barton #1

Well Type: oil, P: A'd 9-28-84

Date Drilled: 1-8-80

Location: 2200' FNL : 1980' FEL

Record of Completion:

TD: 4325' Surf Csg: 8 $\frac{5}{8}$ @1706' Prod Csg: 4 $\frac{1}{2}$ @4325'

Perforations: 4170' - 4294'

Company: El Ran

Well No: U.S. #3

Well Type: oil, P: A'd

Date Drilled: 11-13-79

Location: 2000' FNL : 2310' FWL

Record of Completion:

TD: 4298 Surf Csg: 8 $\frac{5}{8}$ @1703' Prod Csg: 4 $\frac{1}{2}$ @4296'

Perforations: 4140' - 4253

Plugs

CIBP @ 4100' w/100' plug above
100' plug.

100' plug from 1750' - 1650'
10' plug @ surface

Plugs

CIBP @ 4100' w/100' plug above
100' plug from 1735' - 1635' 45sts,
10' plug @ surface (10sts)

Plugs

CIBP @ 4090' w/ 35' plug
100' plug from 2450' - 2350'
Plug from 1700' - 1590'
10' plug @ surface

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VII. Data of the proposed operation:

1. Proposed
Average Daily Injection: 300
Maximum Daily Injection: 350

2. System is OPEN OR CLOSED

3. Proposed
Average Injection Pressure: 1000 psi
Maximum Injection Pressure: 1200 psi

VIII. Geological Data

Geological Name: San Andres
Thickness: 48' avg gross Depth: 4167'

Underground Sources of Drinking Water:

Geological Name: Ogallala
Depth to Bottom of: 200'

IX. Describe the proposed stimulation program:

NA

UNIVERSAL TREATING COMPANY

WATER ANALYSIS

Company: EL RAN
Lease: BYRON

Date: 2-11-88
Well Number: FW POND

Wellhead Alkalinity = 102 mg/l
Total Hardness = 295 mg/l
Wellhead pH = 7.37
Resistivity = 1.7398 ohm-meters
Specific Gravity = 1.010
Total Dissolved Solids = 3,243 mg/l
Sodium (Na) = 782 mg/l
Calcium (Ca) = 220 mg/l
Magnesium (Mg) = 75 mg/l
Iron (Fe) = 0.2 mg/l
Chloride (Cl) = 881 mg/l
Bicarb. (HCO₃) = 102 mg/l
Sulfate (SO₄) = 1,183 mg/l
Sulfide (S) = 0 mg/l
Carbonate Scaling Tendency: 0.10
Sulfate Scaling Tendency: -16.39

Comments: SAMPLE WAS TAKEN FROM THE POND ON THE BYRON

UNIVERSAL TREATING COMPANY
WATER ANALYSIS

Company: EL RAN
Lease: FEDERAL

Date: 2-11-88
Well Number: FW WELL

Wellhead Alkalinity =	195 mg/l
Total Hardness =	165 mg/l
Wellhead pH =	7.18
Resistivity =	8.6627 ohm-meters
Specific Gravity =	1.000
Total Dissolved Solids =	580 mg/l
Sodium (Na) =	(13) mg/l
Calcium (Ca) =	122 mg/l
Magnesium (Mg) =	43 mg/l
Iron (Fe) =	0.4 mg/l
Chloride (Cl) =	140 mg/l
Bicarb. (HCO ₃) =	195 mg/l
Sulfate (SO ₄) =	92 mg/l
Sulfide (S) =	0 mg/l
Carbonate Scaling Tendency:	0.12
Sulfate Scaling Tendency:	-21.26

Comments: SAMPLE WAS TAKEN FROM THE WATER WELL ON THE FEDERAL

A F F I D A V I T

I, Robert R. Ranck, certify that a copy of El Ran, Inc.'s Form C-108 and attachments; which is our application to convert twelve (12) of our wells in the Chaveroo Field, Roosevelt and Chaves Counties, New Mexico to injection Wells; has been sent to the following offset operators on March 23, 1988.

Parker & Parsley Petroleum Co.
Box 3187
Midland, Texas 79702

Orbit Enterprises
P.O. Box 476
Lovington, N.M. 88260

MWJ Producing Company
~~1804 1st Nat'l Bk Bldg~~
Midland, Texas 79701

Siete Oil & Gas
200 W 1
Roswell, N. M. 88260

Aren Petroleum
21 West Street, Room 1905
New York, N.Y. 10006

Brazos Petroleum
P.O. Box 1782
Midland, Texas 79702

Union Texas Petroleum Co.
4000 N. Big Springs, St #500
Midland, Texas 79705

Celsius Energy Company
P.O. Box 11070
Salt Lake City, Utah 84147

Desoto Oil
4131 N. Central Expwy., LB45
Dallas, Texas 75204

Ronadero Co., Inc.
P.O. Box 430
Roswell, N. M. 88201

Champlin Petroleum Company
P.O. Box 7946
Midland, Texas 79708

Robert R. Ranck
Robert R. Ranck
Vice-President

State of Texas

County of Lubbock

The foregoing instrument was acknowledged before me this 23rd day of March, 1988.

BY: Kitty F. Dillard
Notary Public

My Commission Expires:
July 11, 1988



KITTY F. DILLARD
Notary Public, Lubbock County, Texas
My Comm. Expires July 11, 1988

A F F I D A V I T

I, Robert R. Ranck, certify that a copy of El Ran, Inc.'s Form C-108 and attachments; which is our application to convert twelve (12) of our wells in the Chaveroo Field, Roosevelt and Chaves Counties, New Mexico to injection Wells; has been sent to the following surface owners on March 23, 1988:

H. D. Carroll
5229 - 16th
Lubbock, Texas 79416

Mrs. Tom Gainer
Box 65
Kenna, New Mexico 88122

New Mexico State Game & Fish Department
Villagra Building
Santa Fe, New Mexico 87503

Robert R. Ranck

Robert R. Ranck
Vice-President

State of Texas

County of Lubbock

The foregoing instrument was acknowledged before me this
23rd day of MARCH, 19 88.

BY: *Kitty F. Dillard*
Notary Public

My Commission Expires:

July 11, 1988



KITTY F. DILLARD
Notary Public, Lubbock County, Texas
My Comm. Expires July 11, 19 88

AFFIDAVIT OF PUBLICATION

County of Chaves }
 State of New Mexico, }

I, Jean M. Pettit
 Manager

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published once a week in the regular and entire issue of said paper and not in a supplement thereof for a period

of once a day for

one day weeks

beginning with the issue dated 29

March, 1988

and ending with the issue dated 29

March, 1988

Jean M. Pettit
 Manager

Sworn and subscribed to before me
 this 29th day of

March, 1988

Marylon S. Skippes
 Notary Public

My commission expires

July 21, 1990
 (Seal)

Publish March 29, 1988

**NOTICE OF APPLICATION
 FOR FLUID INJECTION WELL PERMIT**

El Ran, Inc., P.O. Box 911, Lubbock, Texas 79408 (Contact W. W. Ranck @ 806/763-4091) has applied to the State of New Mexico for several permits to inject a maximum of 350 barrels of water per day in each of the proposed injection wells at a maximum pressure of 1200 psi into the San Andres formation which occurs at approximately 4167' and is productive of oil or gas. The applicant proposes to inject fluid into the San Andres formation of the following wells located in the Chaveroo Field, Roosevelt and Chaves Counties:

LEASE	WELL NO	INJECTION INTERVAL	SEC	LOCATION TOWNSHIP	RNG
Byron	#1Y	4176' - 4294'	34	7S	32E
Byron	#3	4184' - 4297'	34	7S	32E
Carroll	#1	4247' - 4278'	3	8S	32E
Carroll	#2	4193' - 4281'	3	8S	32E
Dachner	#2	4187' - 4272'	3	8S	32E
Dachner	#4	4212' - 4390'	3	8S	32E
Dachner	#6	4180' - 4304'	3	8S	32E
Dachner	#8	4178' - 4296'	3	8S	32E
Griffin	#2	4168' - 4291'	10	8S	32E
Roberts	#1	4177' - 4284'	3	8S	32E
Roberts	#3	4187' - 4286'	3	8S	32E
Yeager	#4	4262' - 4328'	35	7S	32E

Any interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2068, Santa Fe, New Mexico 87501 within fifteen (15) days.

AFFIDAVIT OF PUBLICATION

County of Chaves }
 State of New Mexico, }

I, Jean M. Pettit
Manager

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published once a week in the regular and entire issue of said paper and not in a supplement thereof for a period

of once a day for
one day weeks

beginning with the issue dated 10
April, 1988

and ending with the issue dated 10
April, 1988

Jean M. Pettit
 Manager

Sworn and subscribed to before me
 this 10th day of

April, 1988
Marylou A. Skipper
 Notary Public

My commission expires
July 21, 1990
 (Seal)

OF APPLICATION FOR FLUID INJECTION
 PERMIT AMENDED TO ADD THIS ONE
 ADDITIONAL WELL TO THE ORIGINAL LIST OF
 WELLS THAT WAS PUBLISHED MARCH 29, 1988

Published April 10, 1988

Inc., P.O. Box 911, Lubbock, Texas 79408 (Contact W. W.
 806/783-4091 has applied to the State of New Mexico for
 permits to inject a maximum of 350 barrels of water per day in
 each of the proposed injection wells at a maximum pressure of 1200
 psi into the San Andres formation which occurs at approximately 4167'
 and is productive of oil or gas. The applicant proposes to inject fluid
 into the San Andres formation of the following wells located in the
 Chaveroo Field, Roosevelt and Chaves Counties:

LEASE	WELL NO	INJECTION INTERVAL	LOCATION		
			SEC	TWNSHIP	RNG
Yeager PH	#2	4150' - 4334'	35	7S	32E

Any interested parties must file objections or requests for hearing with
 the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico
 87501 within fifteen (15) days.

#9357



KERR-MCGEE CORPORATION

110 N. MARIENFELD, SUITE 200 • MIDLAND, TEXAS 79701

DIVISION

February 27, 1990
FEB 2 AM 8 46

PHONE

915 688-7000

Mr. Floyd O. Prando
Director, Oil & Gas Division
State of New Mexico
Commissioner of Public Lands
P. O. Box 1148
Santa Fe, New Mexico 87504-1148

3-2-90
D-UNIT LETTER
Tx 17

Mr. William J. LeMay
Director, Oil Conservation Division
State of New Mexico
Energy and Mineral Department
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: PLAN OF OPERATION 1990
~~KM Chaveroo SA Unit~~
Chaveroo (San Andres) Field
Sections 1 & 2, T8S, R33E
Chaves County, New Mexico

Gentlemen:

Pursuant to the provisions of Section 11A of the Unit Agreement, Kerr-McGee Corporation, designated Unit Operator of the Kerr-McGee Chaveroo San Andres Unit, Chaves County, New Mexico, respectfully submits for your consideration and approval this 1990 Plan of Operation for the secondary recovery of oil by waterflood on the subject unitized land.

I. Summary of 1989 Unit Activities: Since the Unit effective date, September 1, 1989, Unit activities have been concentrated on the construction and installation of injection facilities and all associated equipment necessary to begin waterflooding operations. To date, these activities have been completed with full-scale injection having been commenced on January 26, 1990. The Unit currently consists of nine (9) injection wells, ten (10) producing wells and one (1) salt water disposal well. Fresh water is being injected at a rate of 2700 BWPD (9 wells - 300 BWPD per well) on vacuum with the exception of well #110 which has an injection pressure of 250 psig.

A water injection plant was constructed in the NW/4 of Section 2, Township 8 South, Range 33 East, to service the Unit area. The plant is currently equipped to provide approximately 5400 BWPD providing for ample injection capability. A series of individual and trunk injection lines radiating from the injection plant were installed (ditched and buried to a depth of

36 inches) to provide injection service to the individual injection wells. Nine (9) wells were converted to injectors and the casing in each was successfully pressure tested throughout the interval, from the surface down to the packer setting depth, assuring the integrity of such casing. The annulus of each well was filled with packer fluid containing corrosion inhibiting chemicals. The injection wells were each equipped so as to limit injection pressure at the wellhead to no more than 800 psi. The attached Exhibit 1 shows the location of the above described water injection plant, injection lines, and injection and producing wells of the Unit.

Fresh water is currently being purchased from a source in Section 8, Township 7 South, Range 34 East to service the Unit. This water is supplied from the Ogallala formation at an approximate depth of 185 feet below the surface and has been deemed compatible by chemical analysis with the San Andres produced water. A six (6) inch water supply pipeline, 6.7 miles in length, was constructed (ditched and buried to a depth of 36 inches) to transport the fresh water to service the Unit. Exhibit 2 shows the location of this pipeline. Produced water of the Unit will be injected into the salt water disposal well located in the NW/4 Section 2, Township 8 South, Range 33 East. At a future date, when produced water volumes exceed the disposal capabilities of the salt water disposal well, the produced water will be commingled with fresh water for injection.

- II. Anticipated 1990 Activities: Injection rates are anticipated to remain at 2700 barrels of water per day (9 injection wells - 300 BHPD per well) for the year 1990. Prior to June 1, 1990, an injection profile survey will be run on each of the injection wells to ensure that water is being injected into the unitized zone and that no water channeling is occurring. If water channeling or unacceptable injection profiles are observed, appropriate remedial work will be performed.

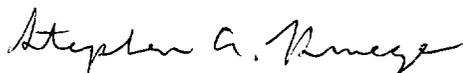
Kerr-McGee does not anticipate drilling any new wells nor converting any additional wells to injectors in 1990. The current Unit well count of nine (9) injection wells, ten (10) producing wells and one (1) salt water disposal well is anticipated to remain constant this year. Although no workovers or shut in of wells are anticipated in 1990, appropriate measures will be taken as individual well or field conditions merit.

- III. Identification of Unit Wells: Attached as Exhibit 3 is a list of the current Unit wells showing the status and location each well.
- IV. Unit Production History: Attached as Exhibit 4 is a monthly production history of the Unit and of each well in the Unit for the past two years.
- V. Modification: Subject to approval, this Plan of Operation may be modified or supplemented during the year to meet changed conditions and to protect the interests of all parties to the Unit Agreement.
- VI. Exhibits A & B to the Unit Agreement: Attached are the current copies of Exhibits A & B to the Unit Agreement showing current participating areas and ownership.

Should you have any questions or comments, please contact the undersigned.

Respectfully submitted,

KERR-MCGEE CORPORATION



Stephen A. Krueger
Senior Petroleum Engineer

SAK/jai

Enclosures/Exhibit 1 - Location map of Unit wells/facilities
Exhibit 2 - Location map of water supply pipeline
Exhibit 3 - Identification of Unit wells
Exhibit 4 - Unit production history
Exhibits A & B to the Unit Agreement

cc: Mr. Jerry E. Sexton
State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240-1980

Mr. Bob Key
Bristol Resources Corporation
3601 East 51st St., Suites B & C
Tulsa, Oklahoma 74136

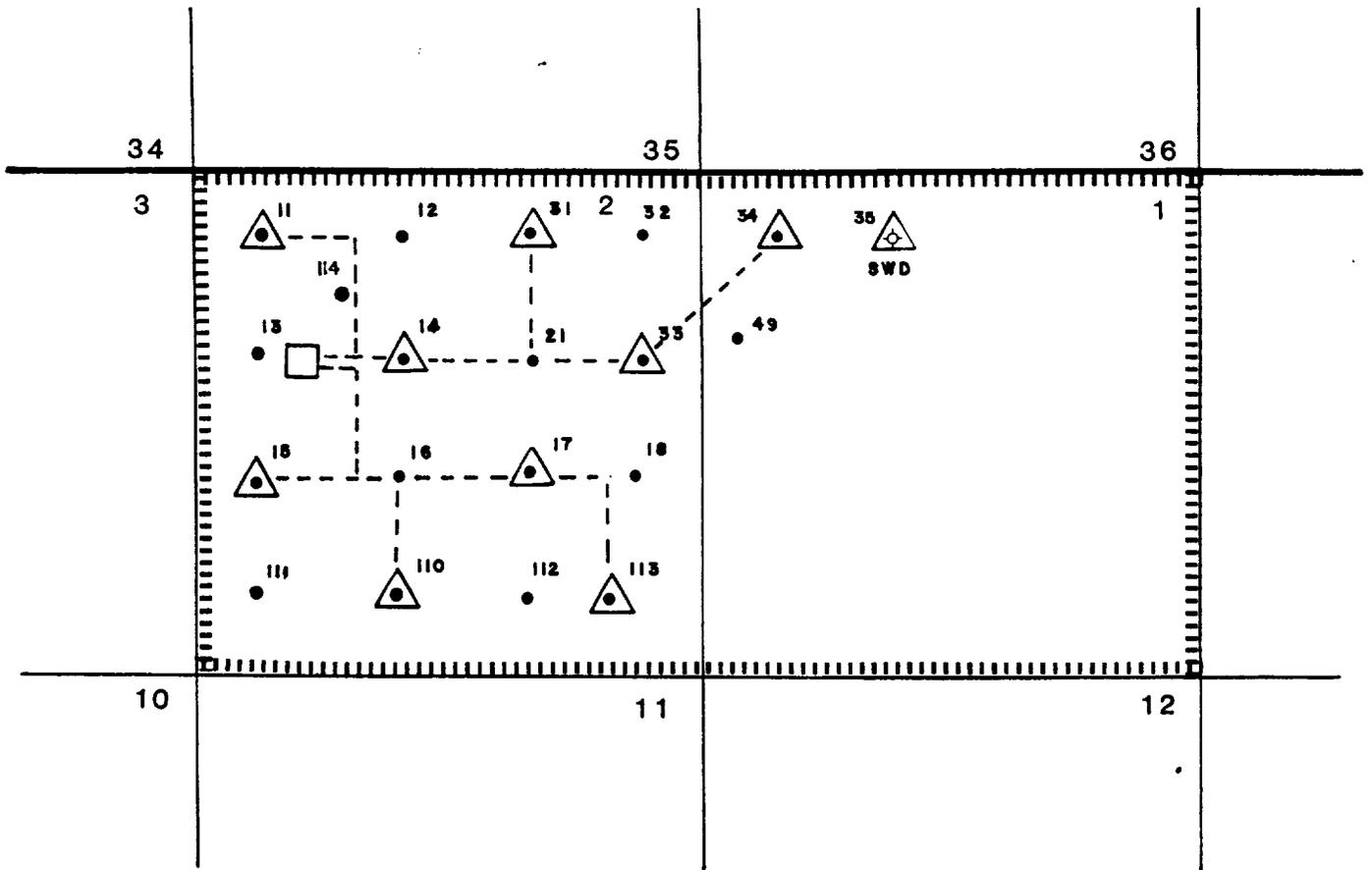
Mr. Paul Woodul
Warren Amercian Oil Company
P. O. Box 470372
Tulsa, Oklahoma 74147-0372

EXHIBIT 1

K-M CHAVEROO SAN ANDRES UNIT Chaves County, New Mexico

T
7
S

R 33 E



-  Injection Well
-  Producing Well
-  SWD
-  Injection Lines
-  Injection Facility
-  Unit Outline

1280.37 Acres

Scale : 1"=2000'

EXHIBIT 3

IDENTIFICATION OF UNIT WELLS
KERR-MCGEE CHAVEROO SAN ANDRES UNIT
CHAVEROO (SAN ANDRES) FIELD
SECTIONS 1 & 2, T8S, R33E
CHAVES COUNTY, NEW MEXICO

February 15, 1990

<u>Unit_Well_#</u>	<u>Unit Loc.</u>	<u>Location</u>	<u>Well_Type</u>	<u>Status</u>
<u>Tract_1</u>				
11	D	660' FNL & 660' FWL, Sec. 2	Injector	Active
12	C	660' FNL & 1980' FWL, Sec. 2	Producer	Active
13	E	1980' FNL & 660' FWL, Sec. 2	Producer	Active
14	F	1980' FNL & 1980' FWL, Sec. 2	Injector	Active
15	L	1980' FSL & 660' FWL, Sec. 2	Injector	Active
16	K	1980' FSL & 1980' FWL, Sec. 2	Producer	Active
17	J	1980' FSL & 1980' FEL, Sec. 2	Injector	Active
18	I	1980' FSL & 660' FEL, Sec. 2	Producer	Active
110	N	990' FSL & 1980' FWL, Sec. 2	Injector	Active
111	M	990' FSL & 660' FWL, Sec. 2	Producer	Active
112	O	990' FSL & 1980' FEL, Sec. 2	Producer	Active
113	P	990' FSL & 990' FEL, Sec. 2	Injector	Active
114	C	1310' FNL & 1330' FWL, Sec. 2	Producer	Active
<u>Tract_2</u>				
21	G	1980' FNL & 1980' FEL, Sec. 2	Producer	Active
<u>Tract_3</u>				
31	B	660' FNL & 1980' FEL, Sec. 2	Injector	Active
32	A	660' FNL & 660' FEL, Sec. 2	Producer	Active
33	H	1980' FNL & 660' FEL, Sec. 2	Injector	Active
34	D	660' FNL & 660' FWL, Sec. 1	Injector	Active
35	C	660' FNL & 1980' FWL, Sec. 1	SWD	Active
<u>Tract_4</u>				
49	E	1650' FNL & 330' FWL, Sec. 1	Producer	Active

Note: All producing wells produce into one common battery located in the NW/4 of Section 2.

EXHIBIT 4
K-M CHAVEROO SAN ANDRES UNIT
PRODUCTION FOR 1988
CHAVES COUNTY, NEW MEXICO

Well #	S T R	Jan.	Feb.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1988 Total	Cum. Total Thru 12/31/88
#11D	2 T8S R33E	Oil 0	0	0	0	0	0	0	0	0	0	0	0	0	68269
		Gas 0	0	0	0	0	0	0	0	0	0	0	0	0	74842
		Wtr 0	0	0	0	0	0	0	0	0	0	0	0	0	8539
#12C	2 T8S R33E	Oil 28	30	30	49	51	25	52	22	68	47	45	53	500	67868
		Gas 214	258	249	240	237	274	301	237	261	294	134	245	2944	102721
		Wtr 56	60	90	49	51	50	26	44	30	24	57	61	598	12018
#13E	2 T8S R33E	Oil 56	60	59	49	51	51	52	65	45	70	67	53	678	83345
		Gas 89	107	104	100	99	114	125	99	109	122	56	102	1226	98235
		Wtr 84	90	118	74	77	77	104	43	89	47	86	61	950	36268
#14F	2 T8S R33E	Oil 56	60	89	49	51	51	52	65	68	70	45	53	709	115211
		Gas 214	258	249	240	237	274	301	237	261	293	134	245	2943	179878
		Wtr 112	120	148	98	77	102	104	65	89	93	114	122	1244	23694
#15L	2 T8S R33E	Oil 250	181	178	293	206	177	158	172	136	164	134	157	2206	184095
		Gas 232	279	270	180	178	91	225	177	196	221	100	184	2333	216339
		Wtr 0	0	0	24	0	0	0	22	30	0	29	0	105	11494
#16K	2 T8S R33E	Oil 84	60	59	49	51	51	53	43	45	47	45	53	640	130167
		Gas 107	129	125	120	119	137	150	118	130	147	67	122	1471	108165
		Wtr 112	90	118	74	77	77	80	65	59	47	57	91	947	17098
#17J	2 T8S R33E	Oil 56	60	59	49	77	51	79	86	68	47	67	53	752	86553
		Gas 89	107	104	100	99	114	125	99	109	122	56	102	1226	75196
		Wtr 168	150	118	98	103	77	105	65	149	118	172	182	1505	38857
#18I	2 T8S R33E	Oil 84	90	89	73	77	76	79	86	91	94	67	79	985	92594
		Gas 161	193	187	180	178	207	225	177	196	221	100	184	2209	96396
		Wtr 84	90	89	73	77	76	79	65	120	94	143	122	1112	21526
#110N	2 T8S R33E	Oil 28	30	30	24	26	51	0	0	0	0	0	0	189	100154
		Gas 143	172	166	160	158	183	0	0	0	0	0	0	982	106316
		Wtr 28	30	60	48	26	77	0	0	0	0	0	0	269	53878
#111M	2 T8S R33E	Oil 28	30	30	24	77	51	53	43	45	47	45	79	552	84764
		Gas 161	193	189	180	178	206	255	177	196	221	100	184	2210	130114
		Wtr 28	0	0	0	77	26	53	22	0	24	29	61	320	6346
#112O	2 T8S R33E	Oil 111	121	89	97	77	76	79	86	68	70	67	79	1020	84312
		Gas 54	64	62	59	59	69	76	59	64	73	33	61	773	79634
		Wtr 666	635	682	534	513	532	606	366	535	420	515	669	6673	139220
#113P	2 T8S R33E	Oil 56	60	59	49	77	76	79	65	68	70	67	79	805	62548
		Gas 107	130	124	120	119	137	150	118	130	147	67	122	1471	71927
		Wtr 224	240	266	221	231	228	211	173	178	163	200	213	2548	71552
#114C	2 T8S R33E	Oil 111	90	150	97	104	100	105	86	91	118	90	104	1246	16856
		Gas 410	495	476	459	454	526	577	454	499	564	255	470	5639	39690
		Wtr 749	840	810	703	728	700	814	516	743	632	858	912	9005	63734

EXHIBIT 4
 K-M CHAVEROO SAN ANDRES UNIT
 PRODUCTION FOR 1988
 CHAVES COUNTY, NEW MEXICO

S T R	Jan.	Feb.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1988 Total	Cum. Total Thru 12/31/88
T8S R33E Oil	71	64	68	68	66	68	68	71	72	70	60	58	799	64052
Gas	62	58	62	62	60	62	62	62	60	63	60	62	735	35776
Wtr	71	96	102	102	99	102	102	107	75	105	87	103	1144	41197
T8S R33E Oil	267	253	0	0	84	98	98	76	62	119	84	88	1226	95337
Gas	0	0	0	0	143	130	130	159	145	141	102	128	1005	130911
Wtr	0	0	0	0	349	735	1905	564	714	359	267	375	5268	39957
T8S R33E Oil	0	0	0	0	77	70	70	89	88	59	56	59	567	85156
Gas	0	0	0	0	41	131	120	147	133	130	95	120	917	99550
Wtr	0	0	0	0	674	813	2024	499	590	421	297	268	5586	30014
T8S R33E Oil	0	0	0	227	95	90	97	120	118	89	84	88	1008	110483
Gas	0	0	0	178	57	154	141	172	157	152	110	139	1260	107599
Wtr	0	0	0	1978	953	1277	1190	738	787	546	355	375	8199	59431
T8S R33E Oil	0	0	0	97	69	84	70	58	59	63	56	59	615	34660
Gas	0	0	0	134	40	143	131	159	145	141	102	128	1123	49135
Wtr	0	0	0	1492	349	1045	833	369	369	234	176	187	5054	64920
T8S R33E Oil	107	102	103	102	101	100	92	90	100	98	87	92	1174	94203
Gas	225	321	260	235	234	209	325	305	290	279	306	301	3290	143487
Wtr	81	77	78	102	101	100	92	90	101	0	120	155	1097	37659
TOTAL	1393	1291	1092	1396	1417	1337	1336	1323	1292	1342	1166	1286	15671	1660627
Gas	2268	2764	2627	2747	2606	3172	3389	2956	3081	3331	1877	2899	33717	1945911
Wtr	2463	2518	2679	5670	4558	6091	8328	3813	4658	3327	3562	3957	51624	777402

EXHIBIT 4
 K-M CHAVEROO SAN ANDRES UNIT
 PRODUCTION FOR 1989
 CHAVES COUNTY, NEW MEXICO

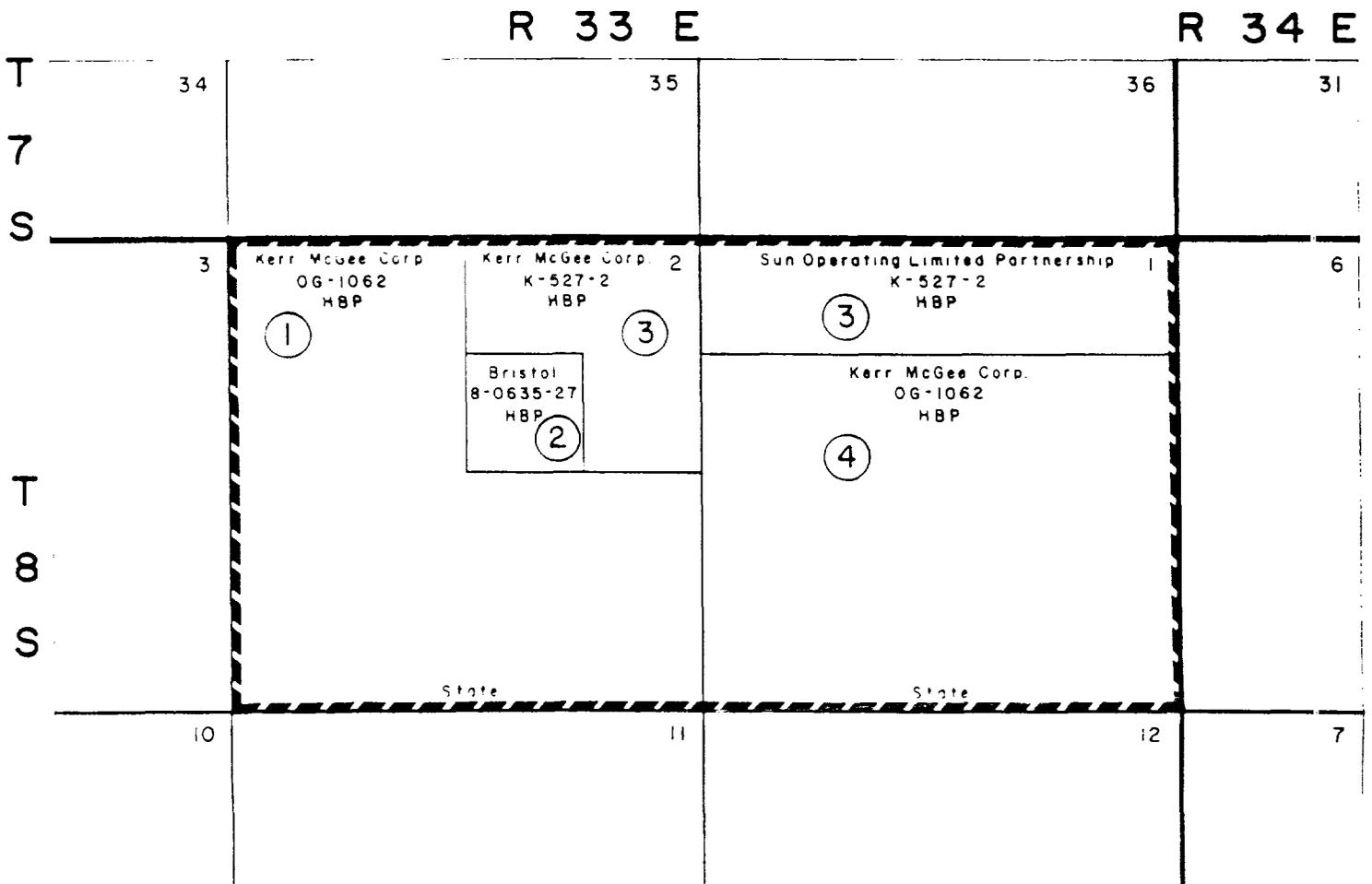
Well #	Jan.	Feb.	March	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1989 Total	Cum. Total Thru 12/31/89
11	Oil 0	0	0	0	0	0	0	0	0	0	0	35	35	68304
	Gas 0	0	0	0	0	0	0	0	0	0	0	0	0	74842
	Wtr 0	0	0	0	0	0	0	0	0	0	0	62	62	8601
12	Oil 61	49	48	41	46	45	46	47	46	48	40	30	547	68415
	Gas 76	159	211	217	191	220	133	131	169	191	252	203	2153	104875
	Wtr 93	63	63	58	60	45	50	50	50	50	50	62	694	12712
13	Oil 61	49	48	61	46	45	63	65	63	66	55	44	666	84011
	Gas 32	66	88	91	80	92	56	55	71	80	106	85	902	99137
	Wtr 93	95	63	87	89	68	74	74	74	74	74	93	958	37226
14	Oil 41	49	48	41	71	66	61	63	61	64	53	43	661	115872
	Gas 76	159	210	217	191	220	133	131	169	191	250	202	2149	182027
	Wtr 62	126	126	87	119	88	88	88	88	88	88	62	1110	24804
15	Oil 124	144	168	143	165	133	141	146	141	148	122	101	1676	185771
	Gas 57	119	158	163	143	165	100	98	127	144	189	152	1615	217954
	Wtr 31	0	31	0	0	0	12	12	12	12	12	155	277	11771
16	Oil 41	49	48	41	71	66	77	80	77	81	67	55	753	130920
	Gas 38	79	105	109	95	110	67	66	85	96	129	102	1081	109246
	Wtr 93	126	94	87	119	88	116	116	116	116	116	124	1311	18409
17	Oil 82	49	48	41	46	45	65	67	65	69	57	46	680	87233
	Gas 32	66	105	91	80	91	55	54	70	79	104	84	911	76107
	Wtr 155	190	94	175	149	113	121	121	121	121	121	62	1543	40400
18	Oil 82	73	71	61	71	45	66	68	66	69	57	46	775	93369
	Gas 57	119	88	163	143	165	100	98	127	144	189	152	1545	97941
	Wtr 124	126	158	116	119	90	103	103	103	103	103	124	1372	22898
21	Oil 108	90	98	90	93	95	88	97	89	86	103	54	1091	95294
	Gas 283	242	319	298	274	346	311	318	331	292	311	170	3495	146982
	Wtr 155	140	155	150	155	150	155	0	0	0	0	0	1060	38719
31	Oil 81	113	80	69	86	68	79	148	85	79	85	50	1023	96360
	Gas 137	161	176	189	269	278	242	309	238	244	343	73	2659	133570
	Wtr 284	319	232	232	283	227	264	264	264	264	264	310	3207	43164
32	Oil 60	56	53	45	0	0	0	0	0	0	0	0	214	85370
	Gas 129	202	220	236	0	0	0	0	0	0	0	0	787	100337
	Wtr 316	351	261	290	0	0	0	0	0	0	0	0	1218	31232

EXHIBIT 4
 K-M CHAVEROO SAN ANDRES UNIT
 PRODUCTION FOR 1989
 CHAVES COUNTY, NEW MEXICO

	<u>Jan.</u>	<u>Feb.</u>	<u>March</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>1989 Total</u>	<u>Cum. Total Thur 12/31/89</u>
Oil	60	85	80	69	58	68	68	127	93	87	93	43	931	111414
Gas	149	121	131	142	202	209	182	232	179	184	257	80	2068	109667
Wtr	379	255	261	260	252	204	290	290	290	290	290	310	3371	62802
Oil	61	56	53	69	58	44	55	103	108	101	109	35	852	35512
Gas	137	40	44	47	68	70	61	78	60	62	87	92	846	49981
Wtr	253	255	261	290	283	220	338	338	338	338	338	372	3624	68544
Oil	66	57	66	64	66	62	64	66	62	53	0	34	660	64712
Gas	62	56	62	60	62	30	31	93	30	31	0	31	548	36324
Wtr	93	90	87	84	62	93	85	85	85	85	85	31	965	42162
Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	100154
Gas	0	0	0	0	0	0	0	0	0	0	0	0	0	106316
Wtr	0	0	0	0	0	0	0	0	0	0	0	0	0	53878
Oil	61	49	48	41	47	45	50	52	50	53	43	36	575	85339
Gas	57	119	158	163	143	165	98	97	126	142	188	151	1607	131721
Wtr	31	32	31	58	60	45	46	46	46	46	46	62	549	6895
Oil	61	49	48	61	71	45	50	52	51	53	43	36	620	84932
Gas	19	40	53	54	48	55	33	32	42	47	62	51	536	80170
Wtr	808	569	598	611	804	450	450	450	450	450	450	31	6121	145341
Oil	82	73	72	61	71	66	66	68	66	69	58	47	799	63347
Gas	38	79	105	109	95	110	134	66	85	96	127	102	1146	73073
Wtr	218	221	158	175	179	132	66	134	134	134	134	186	1871	73423
Oil	82	73	120	103	117	111	101	105	102	107	88	72	1181	18037
Gas	147	302	405	416	366	422	256	252	325	368	485	390	4134	43824
Wtr	902	916	914	786	862	688	676	676	676	676	676	899	9347	73081
Oil	1214	1163	1220	1101	1183	1049	1140	1354	1225	1233	1073	807	13762	1674389
Gas	1526	2129	2691	2765	2450	2748	1924	2110	2234	2391	3079	2120	28167	1974078
Wtr	4090	3874	3619	3546	3595	2701	3002	2847	2847	2847	2847	2945	38760	816162

EXHIBIT "A"

K-M CHAVEROO SAN ANDRES UNIT CHAVES COUNTY, NEW MEXICO



- Tract Number
- ▬ Unit Outline
- State Lands

1280.37 Acres
100% Unit Area
Scale: 1" = 2000'

EXHIBIT "B"

Attached to and made a part of that certain Unit Agreement, K-M Chaveroo San Andres Unit, County of Chaves, State of New Mexico Dated May 1, 1989

Tract No.	Lease Name, Description of Land, and No. Acres	Serial No. & Lease Date	Lessee of Record	Basic Royalty & Percentage	Overriding Royalty Owner or Production Payment Interest (PPI)	Percent Ownership	San Andres Production W.I. Ownership	W.I. Percent Ownership	Percent Unit Participation
1	State "F" T8S, R33E Sec. 2: Lots 3 & 4, S/2 NW/4, S/2 480.25 acres	0G-1062 7/16/67	Kerr-McGee Oil Industries	State of N.M. 12.5%	None	--	Kerr-McGee Corporation	100.000000	70.860945
2	Levick State "2" T8S, R33E Sec. 2: SW/4 NE/4 40 acres	B-8638-27 4/19/50	Bristol Resources 1987-1 Acquisition Program, et al	State of N.M. 12.5%	None	--	Bristol Resources Corp. Warren American Oil Co.	50.000000 50.000000	2.836369 2.836369
3	State Tract "C" T8S, R33E Sec. 2: Lots 1 & 2, SE/4 NE/4 Sec. 1: Lots 1, 2, 3, & 4 280.12 Acres	K-527-2 6/21/70	Sun Operating Limited Partnership	State of N.M. 12.5%	Murphy Operating Co.	7.5% 5/16	Kerr-McGee Corporation	100.000000	19.609220
4.	State "FU" T8S, R33E Sec. 1: S/2, S/2 N/2 480 Acres	0G-1062 7/16/67	Kerr-McGee Oil Industries	State of N.M. 12.5%	None	--	Kerr-McGee Corporation	100.000000	3.857097
TOTAL STATE ACREAGE				1,280.37	= 100% of Unit				
TOTAL UNIT ACREAGE				<u>1,280.37</u>			GRAND TOTAL	100.000000	

HINKLE, COX, EATON, COFFIELD & HENSLEY

ATTORNEYS AT LAW

218 MONTEZUMA

POST OFFICE BOX 2068

SANTA FE, NEW MEXICO 87504-2068

(505) 982-4554

2800 CLAYDESTA NATIONAL BANK BUILDING

POST OFFICE BOX 3580

MIDLAND, TEXAS 79702

(915) 683-4691

1700 TEXAS AMERICAN BANK BUILDING

POST OFFICE BOX 9238

AMARILLO, TEXAS 79105

(806) 372-5569

700 UNITED BANK PLAZA

POST OFFICE BOX 10

ROSWELL, NEW MEXICO 88202

(505) 622-6510

LEWIS C. COX
PAUL W. EATON
CONRAD E. COFFIELD
HAROLD L. HENSLEY JR.
STUART D. SHANOR
C. D. MARTIN
PAUL J. KELLY JR.
OWEN M. LOPEZ
DOUGLAS L. LUNSFORD
T. CALDER EZZELL, JR.
WILLIAM B. BURFORD*
RICHARD E. OLSON
RICHARD A. SIMMS
RICHARD R. WILFONG*
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NANCY S. CUSACK
JEFFREY L. FORNACIARI
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FRANKLIN H. MCCALLUM*
GREGORY J. NIBERT
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JAMES M. HUDSON
MACDONNELL GORDON
REBECCA NICHOLS JOHNSON
PAUL R. NEWTON
WILLIAM P. JOHNSON
KAREN M. RICHARDSON*
ELLEN S. CASEY
JAMES C. BROCKMANN
SUSAN L. NIESER*
MARK A. WILSON*
GREGORY S. WHEELER
ANDREW J. CLOUTIER*

May 12, 1988

OF COUNSEL
O. M. CALHOUN
MACK EASLEY
JOE W. WOOD
STEPHEN L. ELLIOTT

CLARENCE E. HINKLE (190-1985)
W. E. BONDURANT, JR. (1913-1973)
ROY C. SNOODGRASS, JR. (1915-1987)

*NOT LICENSED IN NEW MEXICO

Michael E. Stogner
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87504-2088

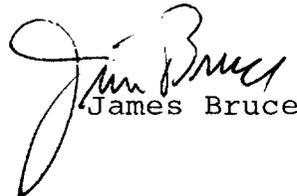
Re: Case Nos. 9357 and 9358, the Applications of El Ran,
Inc. for Unitization and Water Flood

Dear Mike:

It has come to my attention that at the hearing we did not correctly describe the unitized formation. The unitized formation is the interval found from 4177 to 4676 feet in El Ran's Roberts No. 1 Well located in Unit B of Section 3, Township 8 South, Range 32 East. If you have any questions on this, please call El Ran's engineer, Jerry Ilseng at 806-763-4091.

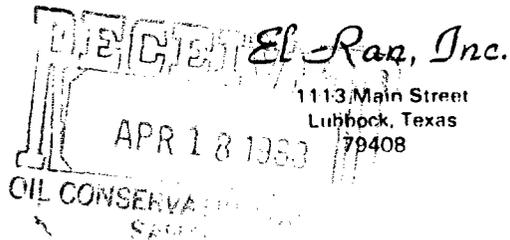
Very truly yours,

HINKLE, COX, EATON,
COFFIELD & HENSLEY


James Bruce

JB:jr

P.O. Box 911



805/763-4091

April 6, 1988

Case 9358

Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87504

RE: Amendments to C-108

To whom it may concern,

Please find enclosed an amended plat and two additional pages to amend the C-108 Attachment VI in order to add the Yeager Well #2 which I had originally left out of the Application for authorization to inject package I mailed to you on March 25, 1988.

Thank you,

EL RAN, INC.

Kay McCain

Kay McCain
Regulatory Analyst

LKM/km
Attachments

cc: Hobbs District Office

4/15/88 - Files newspaper
officer

JRM

Case 9358

AFFIDAVIT OF PUBLICATION

Publish April 10, 1988

**NOTICE OF APPLICATION FOR FLUID INJECTION
WELL PERMIT AMENDED TO ADD THIS ONE
ADDITIONAL WELL TO THE ORIGINAL LIST OF
WELLS THAT WAS PUBLISHED MARCH 29, 1988**

County of Chaves }
State of New Mexico, }

I, Jean M. Pettit
Manager

El Ran, Inc., P.O. Box 911, Lubbock, Texas 79408 (Contact W. W. Ranck @ 806/783-4091 has applied to the State of New Mexico for several permits to inject a maximum of 350 barrels of water per day in each of the proposed injection wells at a maximum pressure of 1200 psi into the San Andres formation which occurs at approximately 4167' and is productive of oil or gas. The applicant proposes to inject fluid into the San Andres formation of the following wells located in the Chaveroo Filed, Roosevelt and Chaves Counties:

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published once a week in the regular and entire issue of said paper and not in a supplement thereof for a period

LEASE	WELL NO	INJECTION INTERVAL	LOCATION		
			SEC	TWNSHP	RNG
Yeager	#2	4150' - 4334'	35	7S	32E

of once a day for

Any interested parties must file objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within fifteen (15) days.

one day weeks

beginning with the issue dated 10

April, 1988

and ending with the issue dated 10

April, 1988

Jean M. Pettit
Manager

Sworn and subscribed to before me

this 10th day of

April, 1988

Maryland Skipper
Notary Public

My commission expires

July 21, 1990
(Seal)

El Ran, Inc.

1113 Main Street
Lubbock, Texas
79408

P.O. Box 911

805/763-4091

April 6, 1988

Case 9358

Oil Conservation Commission
P.O. Box 2088
Santa Fe, New Mexico 87504

RE: Amendments to C-108

To whom it may concern,

Please find enclosed an amended plat and two additional pages to amend the C-108 Attachment VI in order to add the Yeager Well #2 which I had originally left out of the Application for authorization to inject package I mailed to you on March 25, 1988.

Thank you,

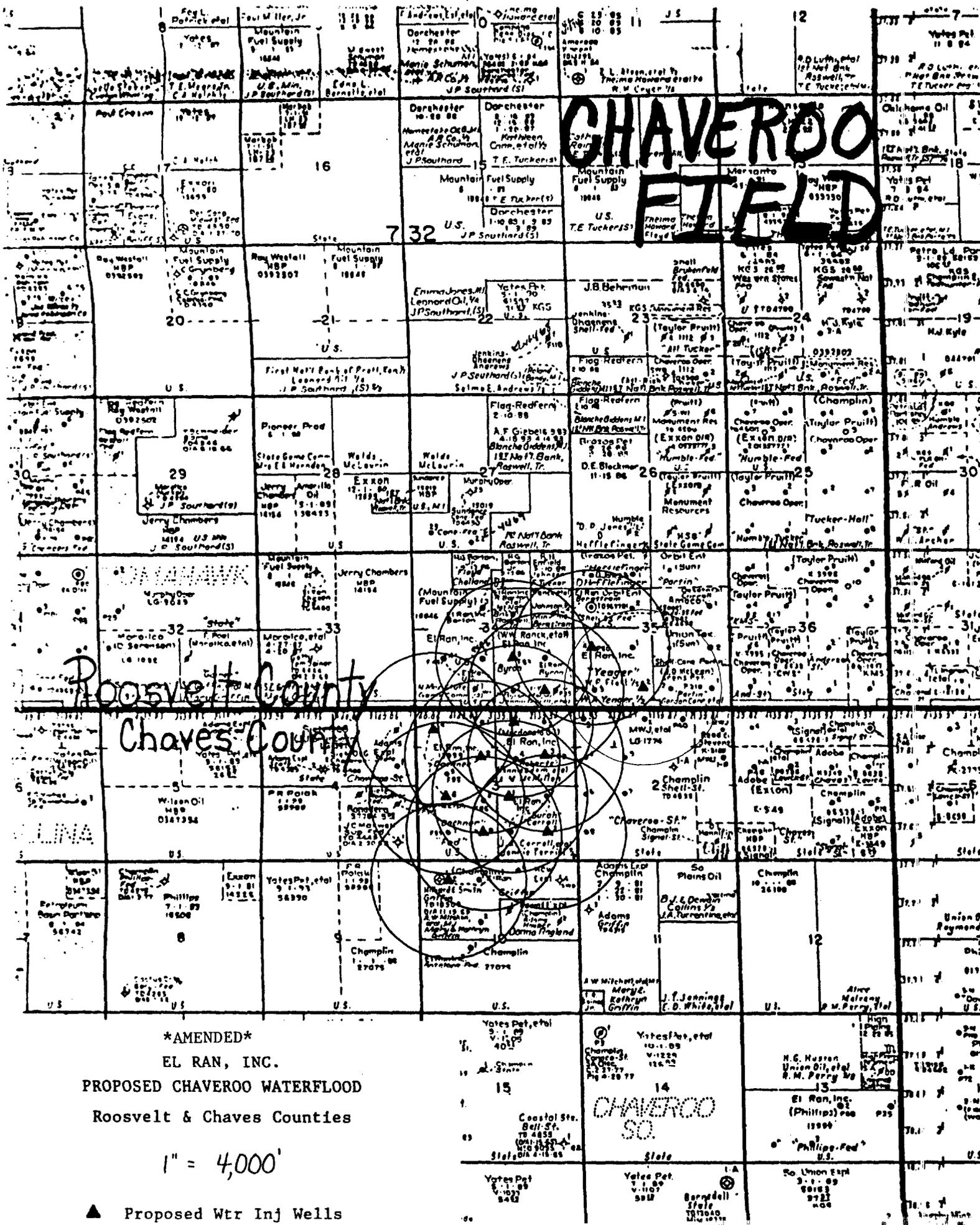
EL RAN, INC.

Kay McCain

Kay McCain
Regulatory Analyst

LKM/km
Attachments

cc: Hobbs District Office



CHAVEROO FIELD

Roosevelt County
Chaves County

AMENDED

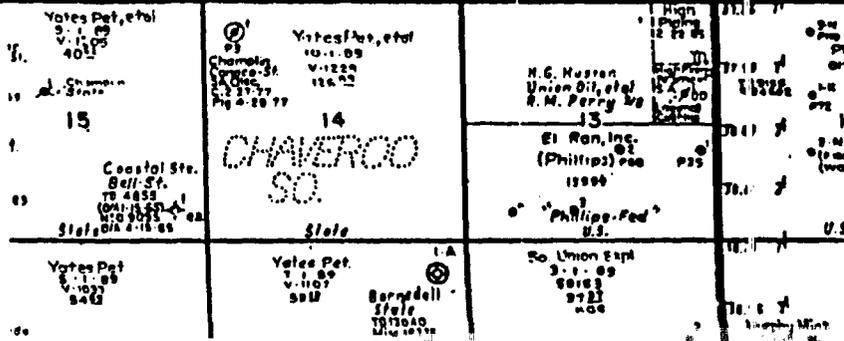
EL RAN, INC.

PROPOSED CHAVEROO WATERFLOOD

Roosevelt & Chaves Counties

1" = 4,000'

▲ Proposed Wtr Inj Wells



CHAVEROO SO.

State

Yates Pat. 3-1-05

Yates Pat. 10-1-05

Yates Pat. 1-1-05

* Amended

State of New Mexico
Form C-108
APPLICATION FOR AUTHORIZATINO TO INJECT

VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

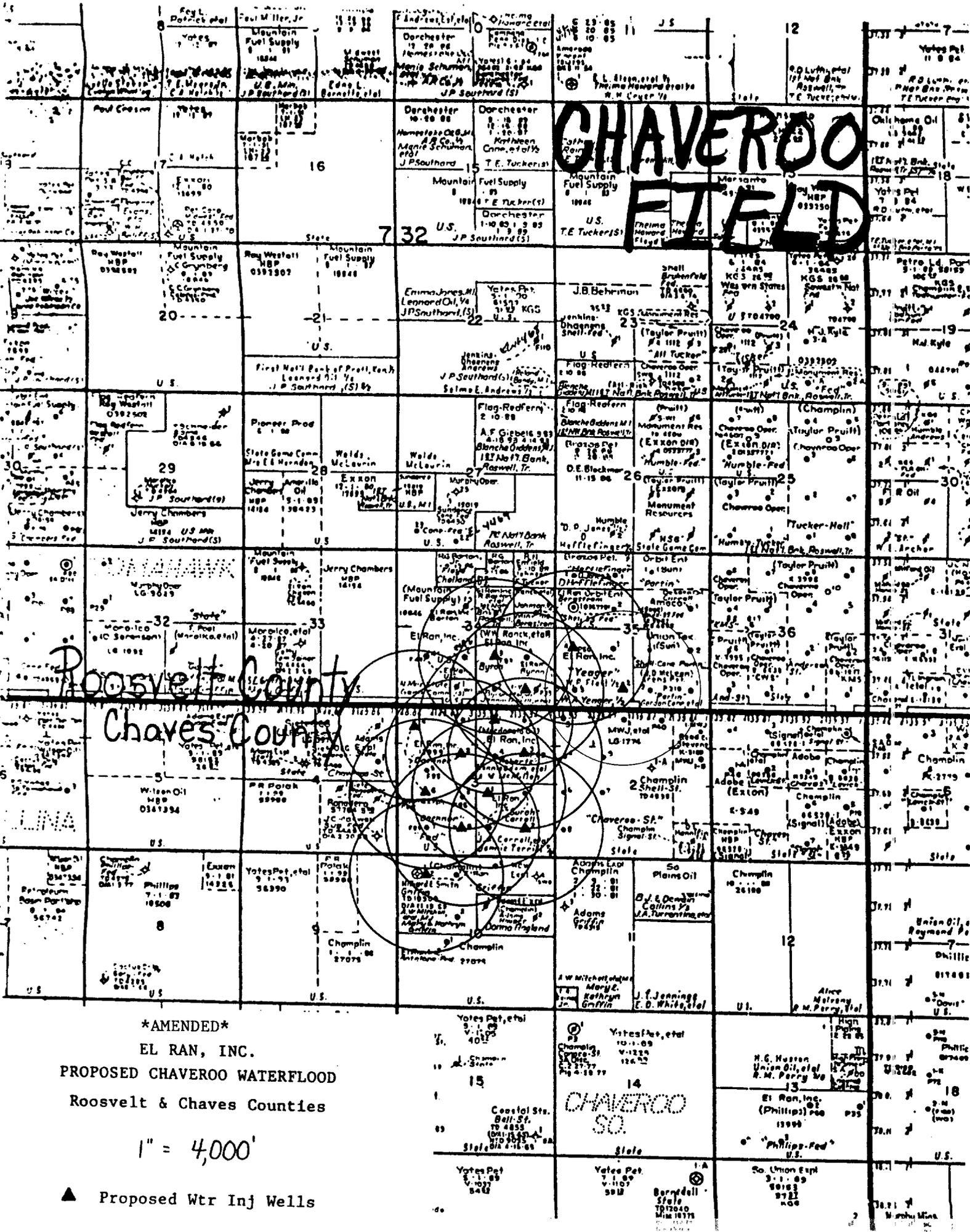
Company: Arens Petroleum
Well No: # 1 Allie Partin
Well Type: oil
Date Drilled: 4-12-72
Location: 660' FSL : 660' FEL of Sec 35-75-32E
Record of Completion:
TD: 4400' Surf Csg: 8⁵/₈ @ 365' Prod Csg: 4¹/₂ @ 4400'
Perforations: 4271' - 4317'

Company: Arens Petroleum
Well No: # 2 Allie Partin
Well Type: oil
Date Drilled: 6-21-72
Location: 660' FSL : 1980' FEL of Sec. 35-75-32E
Record of Completion:
TD: 4370' Surf Csg: 8⁵/₈ @ 364 Prod Csg: 4¹/₂ @ 4370
Perforations: 4273' - 4320.5'

Company: Chambers & Kennedy (Union Tex)
Well No: # 2 Shell-Cone-Partin
Well Type: oil
Date Drilled: 1-6-70
Location: 1980' FSL : 660' FEL of Sec 35-75-32E
Record of Completion:
TD: 4380' Surf Csg: 8⁵/₈ @ 375' Prod Csg: 5¹/₂ @ 4380'
Perforations: 4184' - 4338'

TD: _____ Surf Csg: _____ Prod Csg: _____

Perforations: _____



**CHAVEROO
FIELD**

Roosevelt County
Chaves County

AMENDED

EL RAN, INC.

PROPOSED CHAVEROO WATERFLOOD

Roosevelt & Chaves Counties

1" = 4,000'

▲ Proposed Wtr Inj Wells

CHAVEROO
SO.

Union Oil Co.
Raymond P.

Phillips

Phillips-Fed

So. Union Expl

Borndell

Yates Pat, et al

Champlin

Coastal Str.

Yates Pat

Yates Pat

Yates Pat

Yates Pat, et al

Champlin

Champlin

Yates Pat

Yates Pat

Yates Pat

Union Oil Co.

Union Oil Co.

El Ran, Inc.

So. Union Expl

So. Union Expl

So. Union Expl

Union Oil Co.

* Amended

State of New Mexico
Form C-108
APPLICATION FOR AUTHORIZATINO TO INJECT

VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: Arens Petroleum
Well No: # 1 Allie Partin
Well Type: oil
Date Drilled: 4-12-72
Location: 660' FSL : 660' FEL of Sec 35-75-32 E
Record of Completion:
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Perforations: 4271' - 4317'

Company: Arens Petroleum
Well No: # 2 Allie Partin
Well Type: oil
Date Drilled: 6-21-72
Location: 660' FSL : 1980' FEL of Sec. 35-75-32 E
Record of Completion:
TD: 4370' Surf Csg: 8⁵/₈ @ 364 Prod Csg: 4¹/₂ @ 4370
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Company: Chambers & Kennedy (Union Tex)
Well No: # 2 Shell-Cone-Partin
Well Type: oil
Date Drilled: 1-6-70
Location: 1980' FSL : 660' FEL of Sec 35-75-32 E
Record of Completion:
TD: 4380' Surf Csg: 8⁵/₈ @ 375' Prod Csg: 5¹/₂ @ 4380'
Perforations: 4184' - 4338'

Amended

State of New Mexico
Form C-108
APPLICATION FOR AUTHORIZATION TO INJECT

VI. Tabulation of Data on All Wells of Public Record
Within the Area of Review:

Company: MW Producing
Well No: #2 Chaves State
Well Type: oil
Date Drilled: 11-8-75
Location: 330' FNL; 2310' FWL of Sec 2-8S-32E
Record of Completion:
TD: 4386' Surf Csg: 85' @ 368 Prod Csg: 4 1/2 @ 4386
Perforations: 4303-4341'

Company: _____
Well No: _____
Well Type: _____
Date Drilled: _____
Location: _____

Record of Completion:
TD: _____ Surf Csg: _____ Prod Csg: _____
Perforations: _____

Company: _____
Well No: _____
Well Type: _____
Date Drilled: _____
Location: _____

Record of Completion:
TD: _____ Surf Csg: _____ Prod Csg: _____
Perforations: _____