



RAY B. POWELL  
COMMISSIONER

State of New Mexico  
OFFICE OF THE  
Commissioner of Public Lands  
Santa Fe

9682  
P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

June 11, 1993

Dugan Production Corporation  
709 E. Murray Drive  
P.O. Box 420  
Farmington, New Mexico 88499-0420

Attention: Mr. Richard Corcoran

Re: Resignation/Designation of Successor Unit Operator  
KM Chaveroo Unit  
Chaves County, New Mexico

Dear Mr. Corcoran:

This office is in receipt of a designation of successor unit operator, wherein Kerr-McGee Corporation has resigned as unit operator of the KM Chaveroo Unit and designated Dugan Production Corporation as the successor unit operator.

The Commissioner of Public Lands has this date approved the resignation of Kerr-McGee Corporation and the designation of Dugan Production Corporation as the successor unit operator of this unit. This change in operators is effective March 11, 1993. In accordance with this approval, Dugan Production Corporation, is now responsible for all operations and the reporting of all production from the unit.

If you have any questions, or if we may be of further help, please contact Pete Martinez at (505) 827-5791.

Very truly yours,

RAY B. POWELL  
COMMISSIONER OF PUBLIC LANDS

BY: *Floyd O. Prando*  
FLOYD O. PRANDO, Director  
Oil/Gas and Minerals Division  
(505) 827-5744  
RBP/FOP/pm  
encls.

cc: Reader File  
OCD ✓  
Kerr-McGee Corporation

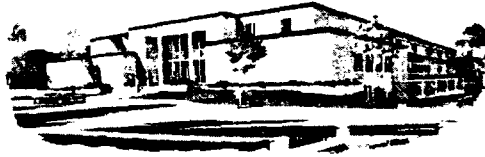


State of New Mexico

# 9682



W.R. HUMPHRIES  
COMMISSIONER



Commissioner of Public Lands

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

October 3, 1990

Mr. Stephen Krueger, Sr. Petroleum Engineer  
KerrMcGee Corporation  
110 N. Marienfeld, Suite 200  
Midland, TX 79701

Re: K-M Chaerloo SA Unit  
Chaves County, New Mexico  
1990 Plan of Development

Dear Mr. Krueger:

The Commissioner of Public Lands this date approved the 1990 Plan of Development for the K-M Chaveroo SA Unit. Our approval is subject to like approval by all other appropriate agencies.

The possibility of drainage by wells outside of the Unit Area and the need for further development may exist. You will be contacted at a later date regarding these possibilities.

If we may be of further help, please do not hesitate to contact Clyde Langdale at (505) 827-5791.

Sincerely,

W. R. HUMPHRIES

BY: *Floyd O. Prando*

Floyd O. Prando, Director  
Oil, Gas & Minerals Division

cc: OCD  
Unit Corresp.  
Unit POD



KELLAHIN, KELLAHIN and AUBREY  
*Attorneys at Law*

W. Thomas Kellahin  
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Post Office Box 2265

Santa Fe, New Mexico 87504-2265

*MS*  
Telephone 982-4285  
Area Code 505

FAX 505/982-2047

Jason Kellahin  
Of Counsel

August 23, 1989

RECEIVED

AUG 25 1989

OIL CONSERVATION DIV.  
SANTA FE

Michael Stogner  
Examiner  
Oil Conservation Divison  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Re: Case No. 9682  
Order No. R-8967

Dear Mr Stogner:

I enclose a copy of the Unit Agreement, executed in counterpart, by all parties pursuant to the above captioned Order.

Please don't hesitate to call me if you require anything else.

Sincerely,

*Karen Aubrey*  
Karen Aubrey

KA:rs  
Enclosure

cc: Ivan Geddie



RECEIVED

AUG 25 1989

OIL CONSERVATION DIV.  
SANTA FE

UNIT AGREEMENT

K-M CHAVEROO SAN ANDRES UNIT

COUNTY OF CHAVES

STATE OF NEW MEXICO

EXECUTION COPY

BEFORE ME, _____
CLERK OF DISTRICT COURT
<i>Kenn Mcbee</i> _____ 2
DATE 96827683



UNIT AGREEMENT  
K-M CHAVEROO SAN ANDRES UNIT  
COUNTY OF CHAVES  
STATE OF NEW MEXICO

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UNIT AGREEMENT  
FOR THE DEVELOPMENT AND OPERATION OF THE  
K-M CHAVEROO SAN ANDRES UNIT  
COUNTY OF CHAVES  
STATE OF NEW MEXICO

THIS AGREEMENT, entered into as of the 1st day of May, 1989, by and between the parties subscribing, ratifying or consenting hereto, and herein referred to as "parties hereto";

W I T N E S S E T H      T H A T:

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 Commissioner of Public Lands of the State of New Mexico is authorized by law (Section 1, Chapter 88, Laws of 1943) (Chapter 19, Article 10, Section 45, New Mexico Statutes 1978 Annotated), to consent to and approve the development or operation of State lands under agreements made by lessees of State land jointly or severally with other lessees where such agreements provide for the unit operation or development of part of or all of any oil or gas pool, field or area; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Section 1, Chapter 162, Laws of 1951; Chapter 19, Article 10, Section 47, New Mexico Statutes 1978 Annotated), to amend with the approval of lessee, evidenced by the lessee's execution of such agreement or otherwise, any oil and gas lease embracing State lands so that the length of the term of said lease may coincide with the term of such agreements for the unit operation and development of part or all of any oil or gas pool, field or area; and

WHEREAS, the Oil Conservation Division of the Energy & Minerals Department of the State of New Mexico is authorized by law (Chapter 72, Laws of 1935, as amended, being Section 70-2 1, et seq., New Mexico Statutes, 1978 Annotated) to approve this Agreement and the conservation provisions hereof and, upon application, to determine the need for and make orders providing the operation of a unit after approval of Seventy-five percent (75%) of the parties involved, which said order shall be binding on all parties in said unit area; and

WHEREAS, the parties hereto hold sufficient interests in the K-M Chaveroo San Andres Unit Area, comprised of the land hereinafter designated, to give reasonably effective control of operations therein; and

WHEREAS, it is the purpose of the parties hereto to enable institution and consummation of secondary and/or enhanced oil recovery operations, conserve natural resources, prevent waste and secure the other benefits obtainable through development and operation of the area subject to this Agreement under the terms, conditions and limitations herein set forth.

NOW THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this Agreement their respective interests in the Unitized Formation underlying the Unit Area, and agree severally among themselves as follows:

SECTION 1. ENABLING ACT AND REGULATIONS. The oil and gas operating regulations in the effect as of the Effective Date hereof governing drilling and producing operations not inconsistent with the terms hereof or the laws of the State of New Mexico are hereby accepted and made a part of this Agreement.

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

- (a) "Unit Area" is defined as the land depicted on Exhibit "A" and described by Tracts in Exhibit "B" attached hereto, and said land is hereby designated and recognized as constituting the Unit Area.
- (b) "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 State of New Mexico.
- (d) "Unitized Formation" is defined as that subsurface portion of the Unit Area known as the San Andres formation, the vertical limits thereof found in that stratigraphic interval between 4211 and 4345 feet as measured on the Compensated Formation Density Log run in the Kerr-McGee Corporation State "F" No. 1 well, said well located approximately 660 feet from the North line and 660 feet from the West line of Section 2, Township 8 South, Range 33 East, Chaves County, New Mexico. The Unitized Formation shall further include all subsurface points throughout the Unit Area correlative to the aforementioned identified depths.
- (e) "Unitized Substances" is defined as all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate and all associated and constituent liquid or liquefiable hydrocarbons within or produced from the Unitized Formation.
- (f) "Working Interest" is defined as an interest in Unitized Substances by virtue of a lease, operating agreement or otherwise, including a carried interest, which interest is chargeable with and obligated to pay or bear, either in cash or out of production or otherwise, all or a portion of the cost of drilling, developing, producing and operating the Unitized Formation. Any interest in Unitized Substances which is a Working Interest as of the date the owner thereof executes, ratifies or consents to this agreement shall thereafter be treated as a Working Interest for all purposes of this Agreement.
- (g) "Royalty Interest" is defined as a right to or interest in any portion of the Unitized substances or proceeds thereof other than a Working Interest.
- (h) "Working Interest Owner" is defined as a party hereto who owns a Working Interest.
- (i) "Royalty Owner" is defined as a party hereto who owns a Royalty Interest.
- (j) "Tract" is defined as each parcel of land described as such and given a Tract number in Exhibit "B".
- (k) "Tract Participation" is defined as the percentages of Unitized Substances allocated hereunder to a Tract. The Tract Participation of the Tracts within the Unit Area is shown on Exhibit "B" attached hereto.
- (l) "Unit Participation" is defined as the sum of the percentages obtained by multiplying the Working Interest of a Working Interest Owner in each Tract having Tract Participation by the Tract Participation of such Tract.
- (m) "Unit Operating Agreement" is defined as any agreement or agreements entered into, separately or collectively, by and between the Unit Operator and the Working Interest Owners as provided in Section 9, Accounting Provisions and Unit Operating Agreement, infra, and shall be styled "Unit Operating Agreement, K-M Chaveroo San Andres Unit, County of Chaves, New Mexico".
- (n) "Unit Operator" is defined as the person or corporation appointed by the Unit Working Interest Owners to perform the duties of the Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Section 8, Successor Unit Operator, hereof.
- (o) "Outside Substances" are substances purchased or otherwise obtained for a consideration by Working Interest Owners and injected into the Unitized Formation as provided for in Section 16B, Outside Substances.



SECTION 3. UNIT AREA. The area specified on the map attached hereto marked Exhibit "A" is hereby designated and recognized as constituting the Unit Area, containing 1280.37 acres, more or less.

Exhibit "A", to the extent known to Unit Operator, shows the boundaries and identity of Tracts and leases in the Unit Area. Exhibit "B" attached hereto is a schedule showing, to the extent known to Unit Operator, the acreage comprising each Tract and the percentage of ownership of each Working Interest Owner in 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 as are shown in said map or schedule as being owned by such party. Exhibit "B" attached hereto also contains a schedule showing the Tract Participation of each Tract in the Unit Area for which Tract Participation has been calculated upon the basis of all tracts within the Unit Area being committed to this Agreement as of the Effective Date hereof.

Exhibits "A" and "B" shall be revised by Unit Operator whenever changes render such revision necessary and not less than two copies of such revision shall be filed with the Commissioner and the Division.

SECTION 4. EXPANSION. The 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 the Unit Area shall file an application therefor with Unit Operator requesting such admissions.

(b) Unit Operator shall circulate a notice of the proposed expansion to each Working Interest Owner in the tract or tracts proposed to be included in the Unit and/or affected by the proposed expansion setting out the basis for admission, the Tract Participation proposed to be allocated to such Tract or Tracts and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise) if, in accordance with the voting procedure set forth in Article 4.3.2 of the Unit Operating Agreement, Working Interest Owner(s) having a combined Unit Participation of seventy-five percent (75%) or more have agreed to such Tract or Tracts being brought into the Unit Area, then Unit Operator shall, after preliminary concurrence by the Commissioner and the Division:

(1) 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 allocated thereto, and the proposed Effective Date thereof; and

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

(3) File, upon the expiration of said thirty-day period as set out in Subsection (2) immediately above, with the Commissioner and Division the following: (a) Evidence of mailing copies of said notice of expansion; (b) an application for such expansion; (c) an instrument containing the appropriate joinders in compliance with the qualification requirements of Section 13, Tracts Qualified for Unit Participation, *infra*; and (d) copies of any objections received.

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

There shall never be any retroactive allocation or adjustment of operating expenses or of interest in the Unitized Substances produced (or the proceeds



of the sale thereof) by reason of an expansion of the Unit Area; provided, however, this limitation shall not prevent any adjustment of investment necessitated by such expansion.

SECTION 5. UNITIZED LAND AND UNITIZED SUBSTANCES. All land committed to this Agreement as provided in Section 13, Tracts Qualified for Unit Participation, as to the Unitized Formation defined in Section 2, Definitions, shall constitute land referred to herein as "Unitized Land" or "land subject to this Agreement". All oil and gas in the Unitized Formation in the Unitized Land are unitized under the terms of this Agreement and herein are called "Unitized Substances".

SECTION 6. UNIT OPERATOR. Kerr-McGee Corporation is hereby designated as Unit Operator, and by signing this instrument as Unit Operator it 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, and the term "Working Interest Owner" when used herein shall include or refer to Unit Operator as the owner of a Working Interest when such an interest is owned by it.

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 thirty (30) days after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners and the Commissioner and Division 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 Unit Operator shall, upon failure or refusal to perform its duties and obligations hereunder, be subject to removal by the vote of Working Interest Owners, owning a combined Unit Participation of eighty percent (80%) or more. However, the Unit Operator shall not be removed until all debts owed to it by Working Interest Owners have been paid in full. Any such removal under this Section 7 shall be effective upon notice thereof to the Commissioner and Division.

In all such instances of 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 equipment, books and records, materials, appurtenances and other assets used in conducting the Unit operations and owned by the Working Interest Owners (including copies of any and all data and information which it might have gained or assembled by reason of its operation of the Unit Area) to the new duly qualified successor Unit Operator or to the Unit Manager if no such new Unit Operator is elected, to be used for the purpose of conducting Unit Operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment or appurtenances needed for the preservation of any wells. Nothing herein contained shall be construed to relieve or discharge any Unit Operator who resigns or is removed hereunder from any liability or duties accruing to or performable by it prior to the effective date of such resignation or removal.

SECTION 8. SUCCESSOR UNIT OPERATOR. Whenever Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, the Working Interest Owners, voting in the manner provided in the Unit Operating Agreement, shall select a successor Unit Operator; provided, however, that the voting interest of the outgoing Unit Operator shall not be considered for this purpose if such outgoing Unit Operator fails to vote or votes only to succeed itself. Such selection of a successor Unit Operator 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 Commissioner and Division. If no successor Unit Operator is selected as herein provided, the Commissioner may declare this Agreement terminated.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. Costs and expenses incurred by Unit Operator in conducting Unit Operations hereunder shall be paid, apportioned among and borne by the Working Interest Owners in accordance with the Unit Operating Agreement. Such Unit Operating Agreement shall also provide the manner in which the Working Interest Owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereunder in conformity with their underlying operating agreements, leases or other independent 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 Unit 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. One true copy of any Unit Operating Agreement executed pursuant to this Section shall be filed with the Commissioner.

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 therefor, 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 11A. PLAN OF OPERATIONS. It is recognized and agreed by the parties hereto that all of the land subject to this Agreement has been reasonably proven to be productive of Unitized Substances in paying quantities or is necessary for Unit Operations and that the object and purpose of this Agreement is to formulate and to put into effect a secondary or enhanced oil recovery project in order to effect a greater 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 Division and the Commissioner, inject into the Unitized Formation, through any well or wells completed therein, brine, water, air, gas, oil, liquefied petroleum gas, carbon dioxide, steam and any other substance or a combination of any of said substances, whether produced from the Unitized Formation or not, and that the location of input wells and the rates of injection therein and the rate of production shall be governed by standards of good geologic and petroleum engineering practices and conservation methods. Reasonable diligence shall be exercised by Unit Operator in complying with the obligations of any approved plan of operation. The parties hereto, to the extent they have the right so to do, hereby grant Unit Operator the right to use brine or water (or both) produced from any formation underlying the Unit Area for injection into the Unitized Formation; provided, however, that this grant of said right shall not preclude the use of brine or water (or both) produced from any formation other than the Unitized Formation for injection into formations other than the Unitized Formation. After commencement of secondary and/or enhanced oil recovery operations, Unit Operator shall furnish the Commissioner and the Division monthly injection and production reports for each well in the Unit. The Working Interest Owners, the Commissioner and the Division shall be furnished periodic reports on the progress of the plan of operation and any revisions or changes thereto necessary to meet changed conditions or to protect the interests of all parties to this Agreement; provided, however, that any major revisions of the plan of operation involving a basic deviation from the initial plan of operation shall be subject to the consent and approval of the Working Interest Owners, the Commissioner and Division.



The initial plan of operation shall be filed with the Division and the Commissioner concurrently with the filing of this Agreement for final approval. Reasonable diligence shall be exercised in complying with the obligations of said plan of operation.

Notwithstanding anything to the contrary herein contained, the Unit Operator shall commence, if not already having done so, secondary recovery operations and/or enhanced oil recovery operations on the Unit Area not later than eighteen (18) months after the Effective Date of this Agreement, or any extension thereof approved by the Commissioner and Division, or this Agreement shall terminate automatically in which latter event the Unit Operator shall notify all interested parties. After such operations are commenced, Unit Operator shall carry on such operations as would a reasonably prudent operator under the same or similar circumstances.

SECTION 11B. USE OF SURFACE AND USE OF WATER. The parties, to the extent of their rights and interests, hereby grant to Unit Operator the right to use as much of the surface of the Unitized Land as may reasonably be necessary for Unit Operations. 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 12. TRACT PARTICIPATION. The percentages of Tract Participation set forth in Exhibit "B" for each Tract within the Unit Area have been calculated in accordance with the following formula:

Tract Participation = Tract's percentage of total primary oil recovery  
from Unit Area as of December 31, 1988.

Such percentages of Tract Participation have been calculated upon the basis of all of said Tracts within the Unit Area being committed to this Agreement as of the Effective Date hereof, and such Tract Participations shall govern the allocation of all Unitized Substances produced after the effective date hereof subject, however, to any revision or revisions of the Unit Area and Exhibit "B" in accordance with the provisions hereof.

In the event less than all of the Tracts are committed hereto as of the Effective Date hereof Unit Operator shall promptly file with the Commissioner and Division at least two copies of revised Exhibit "B" setting forth the revised Tract Participations opposite each of the qualified tracts, which shall be calculated by using the tract factors and formula set forth hereinabove, but applying the same only to the qualified Tracts. The revised Exhibit "B" shall, effective as of the Effective Date of this Agreement, supersede the original Exhibit "B" attached hereto and shall thereafter govern the allocation of Unitized Substances unless disapproved by the Commissioner and Division within thirty (30) days after filing.

If, subsequent to the Effective Date of this Agreement, any additional tract comes committed hereto under the provisions of Section 3, Unit Area, or Section 28, Non-joinder and Subsequent Joinder, or any committed tract is excluded herefrom under the provisions of Section 27, Loss of Title, Unit Operator shall revise said Exhibit "B" or the latest revision thereof to show the new percentage participations of the then committed tracts, which revised exhibit shall, upon its approval by the Commissioner and the Division, supersede, as of its Effective Date, the last previously effective Exhibit "B". In any such revision of Exhibit "B" the revised percentage participations of the respective tracts listed in the last previously effective Exhibit "B" shall remain in the same ratio one to another.

SECTION 13. TRACTS QUALIFIED FOR UNIT PARTICIPATION. On and after the Effective Date hereof, the Tracts within the Unit Area which, in absence of an involuntary unitization order issued by the Division, shall be entitled to participate in the production of Unitized Substances therefrom shall be the Tracts within the Unit Area that are qualified as follows:



(a) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest therein have become parties hereto and as to which Royalty Owners owning seventy-five percent (75%) or more of the Royalty Interest therein have become parties hereto.

(b) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest therein have become parties hereto and as to which Royalty Owners owning less than seventy-five percent (75%) of the Royalty Interest therein have become parties hereto and, further, as to which:

(i) 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 commitment of such Tract to this Agreement; and

(ii) Owners of seventy-five percent (75%) of the combined Unit Participation in all Tracts meeting the requirements of Section 13 (a) hereof have voted in favor of the commitment of such Tract.

(c) Each Tract as to which Working Interest Owners owning less than one hundred percent (100%) of the Working interest therein have become parties hereto, regardless of the percentage of Royalty Interest therein which is committed hereto and, further, as to which:

(i) The Working Interest Owner operating any such Tract and a total of seventy-five percent (75%) or more of the other Working Interest Owners in such Tract who have become parties hereto have joined in a request for the commitment of such Tract to this Agreement and have executed and delivered an indemnity agreement indemnifying and agreeing to hold harmless the other Working Interest Owners in the Unit Area, their successors and assigns, against all claims and demands which may be made by the owners of working interests in such Tract who are not parties hereto and which arise out of the commitment of such Tract to this Agreement; and

(ii) Seventy-five percent (75%) of the combined Unit Participation in all Tracts meeting the requirements of Section 13 A. and 13 B. have voted in favor of the commitment of such Tract and acceptance of the indemnity agreement.

Upon the commitment of such a Tract to this Agreement, the Unit Participation that would have been attributed to the nonsubscribing owners of the Working Interest in such Tract, had they become parties to this Agreement and the Unit Operating Agreement, shall be attributed to the Working Interest Owners in such Tract who have become parties to such agreements in proportion to their respective Working Interests in the Tract.

**SECTION 14A. ALLOCATION OF UNITIZED SUBSTANCES.** All Unitized Substances produced and saved from the committed Tracts within the Unit Area (less, save and except any part of such Unitized Substances which is used in conformity with good operating practices on the Unit Area for drilling, operating, camp and other production, development and pressure maintenance purposes, or which is unavoidably lost) shall be apportioned among and allocated to the committed Tracts within the Unit Area in accordance with the Tract Participation effective hereunder, as such Tract Participation is shown in Exhibit "B" or any revision thereof. 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 hereto entitled to share in the production from such Tract in the same manner, in the same proportions, and upon the same conditions, as they would have participated and shared in the production from such Tract, or in the proceeds thereof, had this Agreement not been entered into, and with the same legal force and effect. No Tract committed to this Agreement and qualified for participation as heretofore provided shall be subsequently excluded from participation hereunder on account of depletion of Unitized Substances from such Tract.



If the Working Interest or the Royalty Interest in any Tract is, on or after the Effective Date hereof, divided with respect to separate parcels or portions of such Tract and owned severally by different persons, the Tract Participations assigned to such Tract 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 14B. 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 or by purchase from such owners. Each Working Interest Owner and the parties entitled thereto shall have the continuing right to receive such production in kind at a common point within the Unit Area and to sell or dispose of the same as it sees fit. Each such party shall have the right to construct, maintain and operate all necessary facilities for that purpose on the Unit Area, provided the same are so constructed, maintained and operated as not to interfere with operations carried on pursuant hereto or with operations upon or with regard to formations other than the Unitized Formation conducted within the Unit Area. Subject to Section 16, Royalty Settlement, 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 (excepting the State of New Mexico) receiving the same in kind.

If any party fails to take in kind or separately dispose of its proportionate share of Unitized Substances, Unit Operator shall have the right, for the time being and subject to revocation at will by the party owning the share, to purchase for its own account or sell to others such share at not less than the prevailing market price in the area for like production; provided that, all contracts of sale by Unit Operator of any other party's share of Unitized Substances shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the circumstances, but in no event shall any such contract be for a period in excess of one year. The proceeds of the Unitized Substances so disposed of by Unit Operator shall be paid to the party entitled thereto.

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

SECTION 15. OIL IN LEASE TANKAGE ON EFFECTIVE DATE. Unit Operator shall make a proper and timely gauge of all lease and other tanks within the Unit Area in order to ascertain the amount of merchantable oil above the pipeline connection in such tanks as of 7:00 A.M. on the Effective Date hereof. All such oil which has then been produced legally shall be and remain the property of the Working Interest Owner entitled thereto the same as if the Unit had not been formed; and such Working Interest Owner shall promptly remove said oil from the Unit Area. Any such oil not so removed shall be sold by Unit Operator for the account of such Working Interest Owner, subject to the payment of all royalty to Royalty Owners under the terms and provisions of the Unit Agreement and any applicable lease or leases and other contracts. All such oil as is in excess of the prior allowable of the well or wells from which the same was produced shall be regarded and treated the same as Unitized Substances produced after the Effective Date hereof.

If, as of the Effective Date hereof, any Tract is over-produced with respect to the allowable of the well or wells on that Tract and the amount of such overproduction has been sold or otherwise disposed of, such overproduction shall be regarded and included as a part of the Unitized Substances produced after the Effective Date hereof and the amount thereof charged to such Tract as having been delivered to the persons entitled to Unitized Substances allocated to such Tract.

SECTION 16A. ROYALTY SETTLEMENT. The State of New Mexico and all Royalty Owners who, under existing contracts, are entitled to take in kind a share of



the substances produced from any Tract unitized hereunder, shall hereafter be entitled 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 Interests not taken in kind shall be made by Working Interest Owners responsible therefor under existing contracts, laws and regulations, on or before the last day of each month for Unitized Substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any Royalty due under their leases, except that such Royalty shall be computed in accordance with the terms of this Agreement.

SECTION 16B. OUTSIDE SUBSTANCES. If gas obtained from lands or formations not subject to this Agreement is introduced into the Unitized Formation for use in pressure maintenance, stimulation of production, or increasing ultimate recovery, which shall be in conformity with a plan first approved by the Commissioner and the Division, a like amount of gas, less appropriate deductions for loss from any cause, may be withdrawn from the formation into which the gas was introduced, royalty free as to dry gas, but not royalty free as to the products extracted therefrom; provided that such withdrawal shall be pursuant to such conditions and formula as may be prescribed or approved by the Commissioner and Division; provided further, that such right of withdrawal shall terminate on the termination of this Agreement. If liquefied petroleum gases or other Outside Substances obtained from lands or formations not subject to this Agreement are injected into the Unitized Formation for the purpose of increasing ultimate recovery, which shall be in conformance with a plan first approved by the Commissioner and Division, part or all of such liquefied petroleum gases or other Outside Substances may be withdrawn royalty free pursuant to such conditions and formula as may be prescribed or approved by the Commissioner and Division.

Royalty due on account of State lands shall be computed and paid on the basis of all Unitized Substances allocated to such lands.

SECTION 17. RENTAL SETTLEMENT. Rentals or minimum royalties due on leases committed hereto shall be paid by Working Interest Owners responsible therefor under existing contracts, laws and regulations, provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for payment of any rental or minimum royalty in lieu thereof due under their leases. Rental for lands of the State of New Mexico subject to this Agreement shall be paid at the rate specified in the respective leases from the State of New Mexico, or may be reduced or suspended under order of the Commissioner pursuant to applicable laws and regulations.

SECTION 18. 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 State laws and regulations.

SECTION 19. DRAINAGE AND BORDER AGREEMENTS. 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, or, with consent of the Commissioner and pursuant to applicable regulations, pay a fair and reasonable compensatory royalty as determined by the Commissioner.

The Unit Operator, upon approval by the Working Interest Owners, and the Commissioner and Division, 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 20. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas on lands committed to this Agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect, and the parties hereto hereby consent that the Commissioner, as to State leases, shall by his approval



hereof or by the approval hereof by his duly authorized representative, does hereby establish, alter, change or revoke the drilling, producing, rental, minimum royalty and royalty requirements of State leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement. Without limiting the generality of the foregoing, all leases, subleases and contracts are particularly modified in accordance with the following:

(a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every part or separately owned Tract subject to this Agreement, regardless of whether there is any development of any particular part or Tract of the Unit Area, notwithstanding anything to the contrary in the 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, secondary recovery or enhanced oil operations performed hereunder upon any Tract of unitized lands shall be accepted and deemed to be performed upon and for the benefit of each and every Tract of unitized land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on land therein embraced.

(c) Suspension of drilling or producing operations on all unitized land pursuant to direction or consent of the Division and Commissioner or their duly authorized representatives, shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every 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 terms of this Agreement.

(e) Termination of this Agreement shall not affect any lease which, pursuant to the terms thereof or any applicable laws, shall continue in force and effect thereafter.

(f) Any lease which is made subject to this Agreement shall continue in force beyond the term provided therein as to the lands committed hereto as long as such lands remain subject hereto.

(g) Any lease embracing lands of the State of New Mexico having only a portion of its land committed hereto shall be segregated as to that portion committed and that not committed, and the terms of such lease shall apply separately to such segregated portions commencing as of the Effective Date hereof; provided, notwithstanding any of the provisions of this Agreement to the contrary, such lease (including both segregated portions) shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease if oil or gas is, or has heretofore been discovered in paying quantities on some part of the lands embraced in such lease committed to this Agreement or, so long as a portion of the Unitized Substances produced from the Unit Area is, under the terms of this Agreement, allocated to the portion of the lands covered by such lease committed to this Agreement, or at any time during the term hereof, as to any lease that is then valid and subsisting and upon which the lessee or the Unit Operator is then engaged in bonafide drilling, reworking, or secondary recovery operations on any part of the lands embraced in such lease, then the same as to all lands embraced therein shall remain in full force and effect so long as such operations are diligently prosecuted, and if they result in the production of oil or gas, said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as oil or gas in paying quantities is being produced from any portion of said lands.

SECTION 21. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interests 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 of 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 of transfer.

Each party hereto agrees that, during the existence of this agreement, it will not resort to any action to partition the unitized formation or the equipment used for operation of the unit, and to that extent waives the benefits of all laws authorizing such partition.

SECTION 22. 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 Commissioner and the Division.

If this Agreement does not become effective on or before July 1, 1990, 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 sixty percent (60%); and at least fifty percent (50%) 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 offices of the County Clerks where a memorandum of this Agreement is recorded, a certificate to the effect that this Agreement has become effective according to its terms and stating further the Effective Date.

The term of this Agreement shall be for and during the time that Unitized Substances are produced in paying quantities from the Unit Area and as long thereafter as diligent drilling, reworking or other operations (including secondary recovery operations) are prosecuted thereon without cessation of more than ninety (90) consecutive days, and as long thereafter as Unitized Substances are produced as aforesaid, unless sooner terminated by Working Interest Owners in the manner hereinafter provided.

This Agreement may be terminated at any time with the approval of the Commissioner by a unanimous vote of the Working Interest Owners, as determined from Exhibit "B". Notice of such termination shall be given by Unit Operator to all parties hereto.

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

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

SECTION 23. APPEARANCES. Unit Operator shall have the right to appear for or on behalf of any and all interests affected hereby before the Commissioner and the Division and to appeal from any order issued under the rules and regulations of the Commissioner or the Division or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Commissioner 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 proceedings.



SECTION 24. 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 verifiably hand-delivered to the party or parties or sent by postpaid certified mail ("return receipt requested") 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 25. 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 rules 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, that each party hereto covenants that during the existence of this Agreement such party will not resort to any action at law or in equity to partition the Unit Area or the facilities used in the development or operation hereof and to that extent waives the benefits of all laws authorizing such partition.

SECTION 26. UNAVOIDABLE DELAY. All obligations under this Agreement requiring the Unit Operator to commence or continue secondary recovery operations or to operate on or produce Unitized Substances from any of the lands covered by this Agreement shall be suspended while, but only so long as, the Unit Operator despite the exercise of due care and diligence is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or Municipal law or agency, unavoidable accident, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

SECTION 27. LOSS OF TITLE. In the event the unit is not subject to an involuntary unitization order issued by the Division and any Tract ceases to have sufficient Working Interest Owners or Royalty Owners committed to this Agreement to meet the conditions of Section 13, Tracts Qualified for Unit Participation, because of failure of title of any party hereto, such Tract shall be automatically regarded as not committed to this Agreement effective as of 7:00 A.M. on the first day of the calendar month in which the failure of title is finally determined; provided, however, that such Tract shall not be so regarded if said Tract can be requalified for admission under Section 13 within ninety (90) days after the date on which such title failure was finally determined.

If any such Tract cannot be so requalified, Unit Operator shall revise the schedule previously filed with the Commissioner setting forth the Tracts committed hereto, and Unit Operator shall revise Exhibit "B" to show the tracts in the Unit Area that remain committed hereto and the Tract Participation of each of said Tracts, which revised Tract Participation shall be calculated and determined on the basis that the Tract Participation of each of said Tracts shall remain in the same ratio one to the other. Copies of the revised schedule and exhibit shall be filed with the Commissioner and same shall be effective as of 7:00 A.M. on the first day of the calendar month in which such failure of title is finally determined.

If title to a Working Interest fails, the rights and obligations of Working Interest Owners by reason of such failure shall be governed by the Unit Operating Agreement. If title to a Royalty Interest fails, but the Tract to which it relates remains committed to this Agreement, the party whose title failed shall not be entitled to participate hereunder insofar as its participation is based on such lost Royalty Interest.

In the event of a dispute as to the title to any Working Interest or Royalty Interest subject hereto, payment or delivery on account thereof may be withheld without liability or interest until the dispute is finally settled; provided, that as to State land or leases, no payments of funds due the State of New Mexico shall be withheld, but such funds shall be deposited as directed by the Commissioner to be held as unearned money pending final settlement of 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 28. NONJOINDER AND SUBSEQUENT JOINDER. As the objective of this Agreement is to have lands in the Unit Area operated and entitled to participation under the terms hereof, it is agreed that, notwithstanding anything else herein, no joinder shall be considered a commitment to this Agreement unless the Unit Area is subject to an involuntary unitization order of the Division or the Tract involved is qualified under Section 13 hereof, Tracts Qualified for Unit Participation. Joinder in this Agreement by a Working Interest Owner, at any time must be accompanied by appropriate joinder to the Unit Operating Agreement in order for the interest to be regarded as effectively committed to this Agreement. Joinder by any owner of a Royalty Interest, at any time, must be accompanied by appropriate joinder by the owner of the corresponding Working Interest in order for the interest to be regarded as committed hereto.

Any oil or gas interest in the Unitized Formation in lands within the Unit Area not committed hereto prior to final approval of this Agreement by the Commissioner may thereafter be committed hereto upon compliance with the applicable provisions of Section 13, Tracts Qualified for Unit Participation, hereof, within a period of two (2) months thereafter, on the same basis of participation as provided for in Section 12, Tract Participation, and as set forth in Exhibit "B", by the owner or owners thereof subscribing or consenting in writing to this Agreement and, if the interest is a Working Interest, the owner of such interest subscribing also to the Unit Operating Agreement.

It is understood and agreed, however, that after two (2) months from 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 Interests Owners having a combined Unit Participation of not less than sixty percent (60%), provided that the Tract Participation of each previously committed Tract shall remain in the same ratio one to the other. Such joinder by a Working Interest Owner must be evidenced by its execution or ratification of this Agreement and the Unit Operating Agreement. Such joinder by a Royalty Owner must be evidenced by its execution or ratification 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 on behalf of such Royalty Owner. Except as may be otherwise herein provided, subsequent joinders shall be effective at 7:00 A.M. on the first day of the month following the filing with the Commissioner, of duly executed documents necessary to establish effective commitment unless reasonable objection to such joinder by the Commissioner is duly made within sixty (60) days after such filing. Notwithstanding any of the provisions to the contrary, all commitments of State of New Mexico land must be approved by the Commissioner.

SECTION 29. 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 lands within the above described Unit Area.

SECTION 30. JOINDER COMMITMENT. Execution as herein provided by any party either as a Working Interest Owner or as a Royalty Owner shall commit all interests that may be owned or controlled by such party.

SECTION 31. 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 taxes on their respective allocated share of said Unitized Substances. No such taxes shall be charged to the State of New Mexico, or to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.



SECTION 32. PERSONAL PROPERTY EXCEPTED. 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 or 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 the rights and interests therein as among Working Interest Owners are covered by Unit Operating Agreement.

SECTION 33. NO PARTNERSHIP. The duties, obligations and liabilities of the parties hereto are intended to be several and not joint or collective. This Agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligations as herein provided.

SECTION 34. CORRECTIONS OF ERRORS. It is hereby agreed to all parties to this Agreement that Unit Operator is empowered to correct any mathematical or clerical errors which may exist in the pertinent exhibits to this Agreement; provided, however, that correction of any error other than mathematical or clerical shall be made by Unit Operator only after first having obtained approval of Working Interest Owners having a combined Unit Participation of fifty percent (50%) or more and the Commissioner.

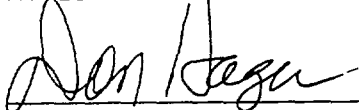
EXECUTED this 25th day of April, 1989, but effective for all purposes the 1st day of May, 1989.

"UNIT OPERATOR" AND "WORKING INTEREST OWNER"

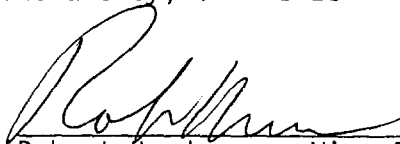
KERR-McGEE CORPORATION  
T-25C McGee Tower  
P.O. Box 25861  
Oklahoma City, OK 73125

FOR  
APPROVAL  
TAX DEPT  
JW  
4/21/89

ATTEST:

  
Don Hager  
Assistant Secretary

By:

  
Robert Henderson, Vice-President

"NON-OPERATORS"

ATTEST:

\_\_\_\_\_

By: \_\_\_\_\_

ATTEST:

\_\_\_\_\_

By: \_\_\_\_\_




STATE OF OKLAHOMA )  
 )  
COUNTY OF OKLAHOMA )

The foregoing instrument was acknowledged before me this 21<sup>st</sup> day of April, 1989 by Robert Henderson, Vice-President of Kerr-McGee Corporation, a Delaware corporation, on behalf of said corporation.

My Commission Expires:

4-27-92

  
Notary Public

STATE OF \_\_\_\_\_ )  
 )  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 1989, by \_\_\_\_\_, \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

\_\_\_\_\_

\_\_\_\_\_  
Notary Public

STATE OF \_\_\_\_\_ )  
 )  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 1989, by \_\_\_\_\_, \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

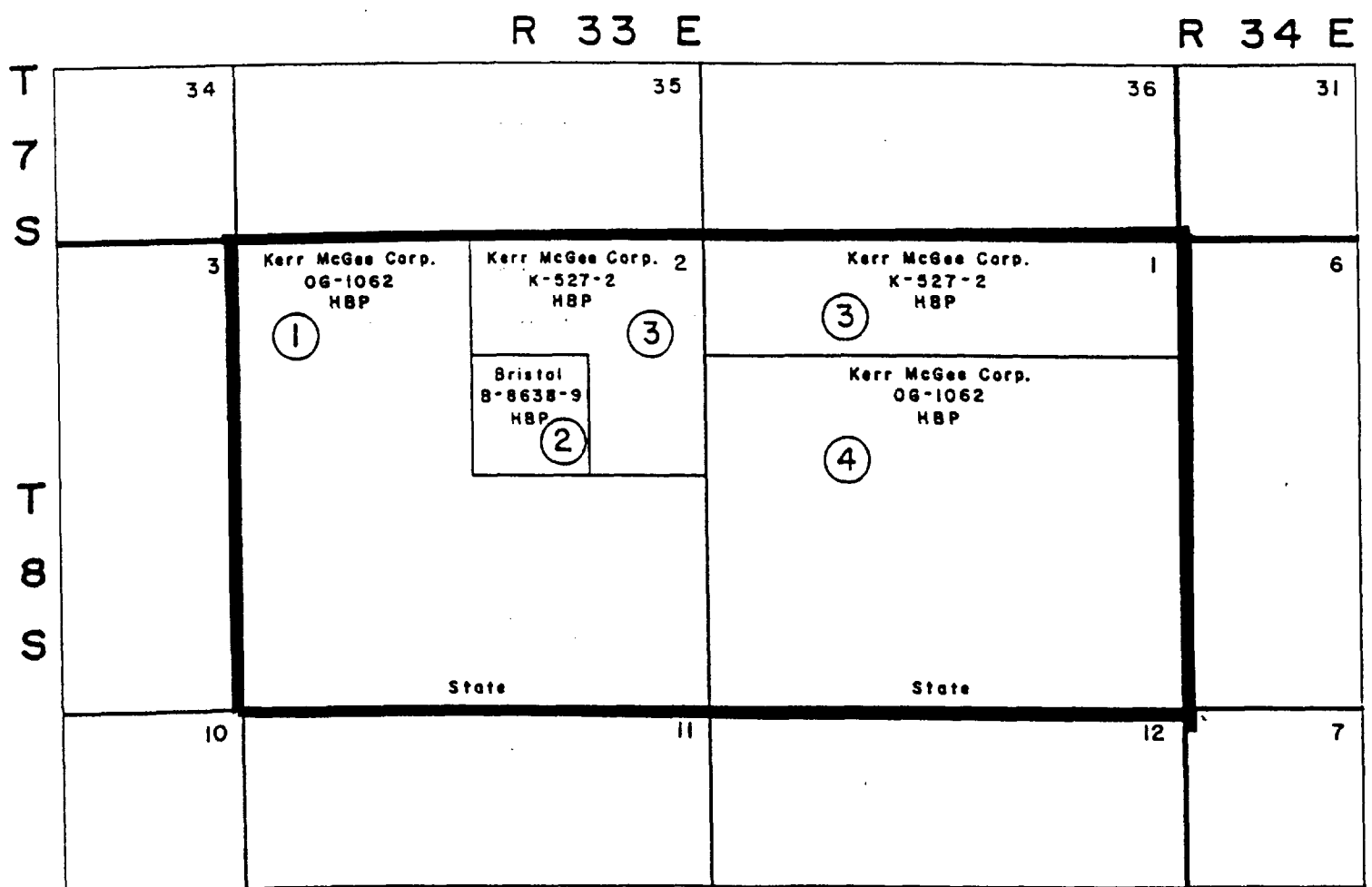
\_\_\_\_\_

\_\_\_\_\_  
Notary Public



# EXHIBIT "A"

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



○ Tract Number  
 — Unit Outline

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	OG-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-8638-9 4/19/50	Champlin Petroleum Co.	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 6/21/60	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	OG-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
TOTAL UNIT ACREAGE									1,280.37
= 100% of Unit									
GRAND TOTAL									100.000000



SECTION 32. PERSONAL PROPERTY EXCEPTED. 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 or 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 the rights and interests therein as among Working Interest Owners are covered by Unit Operating Agreement.

SECTION 33. NO PARTNERSHIP. The duties, obligations and liabilities of the parties hereto are intended to be several and not joint or collective. This Agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligations as herein provided.


SECTION 34. CORRECTIONS OF ERRORS. It is hereby agreed to all parties to this Agreement that Unit Operator is empowered to correct any mathematical or clerical errors which may exist in the pertinent exhibits to this Agreement; provided, however, that correction of any error other than mathematical or clerical shall be made by Unit Operator only after first having obtained approval of Working Interest Owners having a combined Unit Participation of fifty percent (50%) or more and the Commissioner.


EXECUTED this \_\_\_\_\_ day of \_\_\_\_\_, 1989, but effective for all purposes the 1st day of May, 1989.

"UNIT OPERATOR" AND "WORKING INTEREST OWNER"

KERR-McGEE CORPORATION  
T-25C McGee Tower  
P.O. Box 25861  
Oklahoma City, OK 73125

ATTEST:

  
Don Hager  
Ass't. Secretary

By:   
Robert Henderson, Vice-President *JH 5/12/89*

"NON-OPERATORS"

ATTEST:

\_\_\_\_\_

By: \_\_\_\_\_

ATTEST:

\_\_\_\_\_

By: \_\_\_\_\_



STATE OF OKLAHOMA )  
 )  
COUNTY OF OKLAHOMA )

The foregoing instrument was acknowledged before me this 25<sup>th</sup> day of April, 1989 by Robert Henderson, Vice-President of Kerr-McGee Corporation, a Delaware corporation, on behalf of said corporation.

My Commission Expires:

4-27-92

*Trinidad R. Balaban*  
Notary Public

STATE OF \_\_\_\_\_ )  
 )  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 1989, by \_\_\_\_\_, \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

\_\_\_\_\_

\_\_\_\_\_  
Notary Public

STATE OF \_\_\_\_\_ )  
 )  
COUNTY OF \_\_\_\_\_ )

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 1989, by \_\_\_\_\_, \_\_\_\_\_, a \_\_\_\_\_ corporation, on behalf of said corporation.

My Commission Expires:

\_\_\_\_\_

\_\_\_\_\_  
Notary Public



AGREEMENT TO BECOME A PARTY TO  
UNIT AGREEMENT OR UNIT OPERATING AGREEMENT  
OR BOTH  
K-M CHAVEROO SAN ANDRES UNIT  
CHAVES COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, an agreement entitled "Unit Agreement, K-M Chaveroo San Andres Unit, Chaves County, New Mexico", entered into as of the 1st day of May, 1989, provides that any owner of a Royalty Interest or Working Interest, or both, in and to any Tract described therein may become a party to the agreement by signing an instrument agreeing to become a party thereto; and

WHEREAS, a companion agreement entitled "Unit Operating Agreement, K-M Chaveroo San Andres Unit, Chaves County, New Mexico," of like date, likewise provides that any owner of a Working Interest in and to any Tract described therein may become a party to the Unit Operating Agreement by signing an instrument agreeing to become a party thereto; and

WHEREAS, each of the undersigned represents that it is the owner of a Royalty Interest, Working Interest, or both, in and to one or more of the Tracts described in said agreements;

NOW, THEREFORE, in consideration of the mutual agreements of the parties to the respective agreements, the undersigned owners of Royalty Interest hereby agree to become parties to the Unit Agreement, and the undersigned owners of Working Interest and Royalty Interest, hereby agree to become parties to both the Unit Agreement and the Unit Operating Agreement, with respect to all of their interests in and to all of the Tracts described in said agreements.

The undersigned owners of Royalty Interest hereby acknowledge receipt of a full and true copy of the Unit Agreement and the undersigned owners of Working Interest hereby acknowledge receipt of full and true copies of both the Unit Agreement and the Unit Operating Agreement.

IN WITNESS WHEREOF, each of the undersigned has executed this instrument on the date set forth opposite its signature.

ATTEST:



David B. Whitehill, Assistant Secretary  
Date signed: 8-16-89

WARREN AMERICAN OIL COMPANY

By:   
John A. Naughton, Vice President



OKLAHOMA  
STATE OF ~~NEW MEXICO~~ )  
TULSA )  
COUNTY OF ~~CHAVEZ~~ )

The foregoing instrument was acknowledged before me this 16th day  
of August, 1989, by John A. Naughton, Vice President  
of Warren American Oil Company Corporation on behalf of said corporation.

My Commission Expires:

May 7, 1992

Mary S. Naber  
Notary Public  
Mary S. Naber



AGREEMENT TO BECOME A PARTY TO  
UNIT AGREEMENT OR UNIT OPERATING AGREEMENT  
OR BOTH

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

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, an agreement entitled "Unit Agreement, K-M Chaveroo San Andres Unit, Chaves County, New Mexico", entered into as of the 1st day of May, 1989, provides that any owner of a Royalty Interest or Working Interest, or both, in and to any Tract described therein may become a party to the agreement by signing an instrument agreeing to become a party thereto; and

WHEREAS, a companion agreement entitled "Unit Operating Agreement, K-M Chaveroo San Andres Unit, Chaves County, New Mexico," of like date, likewise provides that any owner of a Working Interest in and to any Tract described therein may become a party to the Unit Operating Agreement by signing an instrument agreeing to become a party thereto; and

WHEREAS, each of the undersigned represents that it is the owner of a Royalty Interest, Working Interest, or both, in and to one or more of the Tracts described in said agreements;

NOW, THEREFORE, in consideration of the mutual agreements of the parties to the respective agreements, the undersigned owners of Royalty Interest hereby agree to become parties to the Unit Agreement, and the undersigned owners of Working Interest and Royalty Interest, hereby agree to become parties to both the Unit Agreement and the Unit Operating Agreement, with respect to all of their interests in and to all of the Tracts described in said agreements.

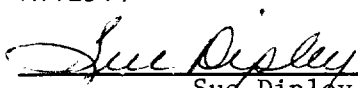
The undersigned owners of Royalty Interest hereby acknowledge receipt of a full and true copy of the Unit Agreement and the undersigned owners of Working Interest hereby acknowledge receipt of full and true copies of both the Unit Agreement and the Unit Operating Agreement.

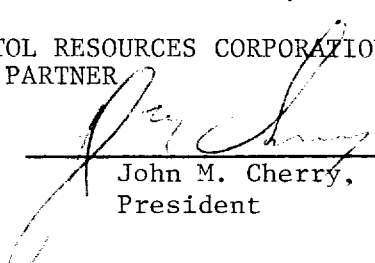
IN WITNESS WHEREOF, each of the undersigned has executed this instrument on the date set forth opposite its signature.

BRISTOL RESOURCES 1987-1 ACQUISITION  
PROGRAM

BY BRISTOL RESOURCES CORPORATION,  
GENERAL PARTNER

ATTEST:

  
Sue Dipley, Asst. Secretary  
Date signed: 8/19/89

  
John M. Cherry,  
President




OKLAHOMA  
STATE OF ~~NEW MEXICO~~ )  
TULSA )  
COUNTY OF ~~CHAVES~~ )

The foregoing instrument was acknowledged before me this 17th day  
of August, 1989, by John M. Cherry, President  
of Bristol Resources Corporation, on behalf of said corporation, as  
General Partner of Bristol Resources 1987-1 Acquisition Program.

My Commission Expires:

January 3, 1993

  
Notary Public  
Shirley L. Parkerson



State of New Mexico



W.R. HUMPHRIES  
COMMISSIONER



OLD

Commissioner of Public Lands

August 30, 1989

48

Kerr-McGee Corporation  
Exploration and Production Division  
U.S. Onshore Region  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125

ATTN: Ivan Geddie

RE: Approval of K-M Chaveroo San Andres Unit  
Chaves County, New Mexico

Gentlemen:

Please be advised that the Commissioner of Public Lands has this date granted final approval to the K-M Chaveroo San Andres Unit Agreement, Chaves County, New Mexico. It is our understanding that all tracts are committed at this time. The effective date of the K-M Chaveroo San Andres Unit will be September 1, 1989.

Our approval is subject to like approval by the New Mexico Oil Conservation Division. Enclosed are five (5) Certificates of Approval and one copy of the approved Unit Agreement.

Your filing fee in the amount of sixty dollars (\$60.00) was received.

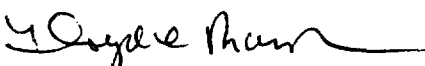
Please forward corrected copies of Exhibits A and B and two copies of the Unit Operating Agreement to this office as soon as they are available so that our files will be complete.



If we may be of further help, please do not hesitate to call Susan Howarth at (505) 827-5791.

Very truly yours,

W.R. HUMPHRIES  
COMMISSIONER OF PUBLIC LANDS

BY:   
FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5749

WRH/FOP/SMH

enclosures

cc: OCD - Santa Fe, New Mexico  
BLM - Roswell, New Mexico  
Karen Aubrey (Kellahin, Kellahin and Aubrey)



Unit Name K-M Chaveroo San Andres Unit  
Operator Kerr-McGee Corporation  
County Chaves County, NM

DATE	OCC CASE NO.	EFFECTIVE DATE	TOTAL ACREAGE	STATE	FEDERAL	INDIAN-FEE	SEGREGATION CLAUSE	TERM
APPROVED	OCC ORDER NO.							
August 30, 1989	Case Nos.: 9682 9683	Sept. 1, 1989	1280.37	1280.37	-0-	-0-	Strict	So for
Order Nos.: R-8967 R-8968								

UNIT AREA

T-8-S, R-33-E

Section 1: Lots 1, 2, 3, 4, S/2N/2, S/2  
Section 2: Lots 1, 2, 3, 4, S/2N/2, S/2

All tracts are committed  
Total Unit Area is in State Lands (1280.37 Acrea)



Unit Name

K-M CHAVEROO SAN ANDRES UNIT

Operator

KERR-MCGEE CORPORATION

County

CHAVES CNTY, NM

STATE TRACT NO.	LEASE NO.	INSTI-TUTION	SEC.	TWP.	RGE.	SUBSECTION	RATIFIED DATE	ACREAGE		LESSEE
								ACRES	NOT RATIFIED	
1	OG-1062	C.S.	2	8S	33E	Lots 3, 4, S/2NW/4, S/2	4/25/89,	480.25		Kerr-McGee Oil Industries
2	B-8638-27	C.S.	2	8S	33E	SW/4NE/4	8/17/89	40.00		Bristol Resources 1987-1 Acquisition Program and Warren American Oil C
3a	K-527-2	C.S.	2	8S	33E	Lots 1, 2, SE/4NE/4	8/16/89 4/25/89	120.11		Sun Operating Ltd. Partnership
3b	K-527-2	Univ.	1	8S	33E	Lots 1, 2, 3, 4,	4/25/89	160.01		Sun Operating Ltd. Partnership
4	OG-1062	Univ.	1	8S	33E	S/2, S/2N/2	4/25/89	480.00		Kerr-McGee Oil Industries
								1280.37 Acres		



# State of New Mexico



W.R. HUMPHRIES  
COMMISSIONER



## Commissioner of Public Lands

P.O. BOX 1148  
SANTA FE, NEW MEXICO 87504-1148

August 25, 1989

Kerr-McGee Corporation  
Exploration and Production Division  
U.S. Onshore Region  
P.O. Box 25861  
Oklahoma City, Oklahoma 73125

ATTN: Ivan Geddie

RE: Proposed K-M Chaveroo San Andres Unit  
Chaveroo San Andres Field  
Chaves County, New Mexico

Gentlemen:

This office has reviewed the unexecuted copy of the unit agreement submitted for the proposed K-M Chaveroo San Andres Unit Area, Chaves County, New Mexico. This agreement meets the general requirements of the Commissioner of Public Lands who has this date granted you preliminary approval as to form and content.

Preliminary approval shall not be construed to mean final approval of this agreement in any way and will not extend any short term leases until final approval and an effective date have been given.

When submitting your agreement for final approval, please include the following items:

1. Application for final approval by the Commissioner setting forth the tracts that have been committed and those that are not committed.
2. All ratifications from the Lesees of Record and Working Interest Owners. All signatures should be acknowledged by a notary and one set must contain original signatures.
3. Order of the New Mexico Oil Conservation Division. Our approval will be contingent upon subsequent favorable approval by the New Mexico Oil Conservation Division.

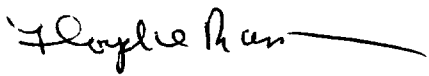


4. The filing fee. The filing fee for a Unit Agreement is thirty dollars (\$30.00) for every section or partial section thereof. Please submit a filing fee in the amount of \$60.00.
5. An original and one copy of the Unit Agreement AND the Unit Operating Agreement including the appropriate Exhibits.

If we may be of further help, please do not hesitate to contact Susan Howarth at (505) 827-5791.

Very truly yours,

W.R. HUMPHRIES  
COMMISSIONER OF PUBLIC LANDS

  
BY: FLOYD O. PRANDO, Director  
Oil and Gas Division  
(505) 827-5744

WHR/FOP/SMH



POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE NEW MEXICO 87501  
(505) 827-5800

Ms. Karen Aubrey  
Kellahin, Kellahin & Aubrey  
Attorneys at Law  
Post Office Box 2265  
Santa Fe, New Mexico

Re: CASE NO. 9682  
ORDER NO. R-8967

Applicant:

Kerr-McGee Corporation

Dear Madam:

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

Sincerely,

Florence Davidson

FLORENE DAVIDSON  
OC Staff Specialist

Copy of order also sent to:

Hobbs OCD	<u>          </u> <b>x</b>
Artesia OCD	<u>          </u> <b>x</b>
Aztec OCD	

Other \_\_\_\_\_



KELLAHIN, KELLAHIN and AUBREY  
*Attorneys at Law*

W. Thomas Kellahin  
Karen Aubrey

El Patio - 117 North Guadalupe  
Post Office Box 2265

Telephone 982-4285  
Area Code 505

Jason Kellahin  
Of Counsel

Santa Fé, New Mexico 87504-2265

FAX 505/982-2047

July 11, 1989

HAND-DELIVERED

Michael E. Stogner  
Examiner  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504

Re: Kerr-McGee Corporation  
Case Nos. 9682 and 9683

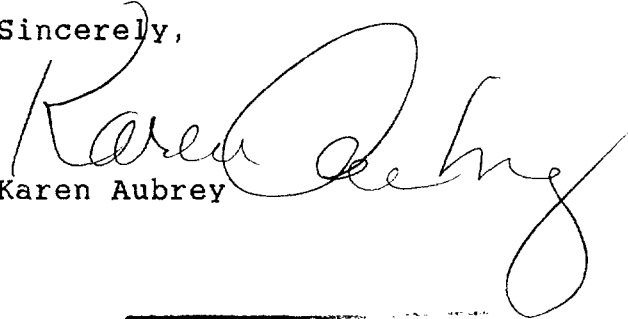
Dear Mr. Stogner:

I enclose draft orders on behalf of Kerr-McGee Corporation in the above cases.

Please note that we have reduced the proposed project area for the waterflood to those portions of Sections 1 and 2 which have either a producing well or an injector on each proration unit.

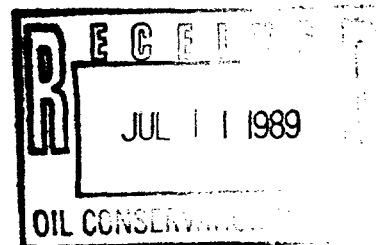
Additionally, we have now obtained the consent of all working interest owners to the unit, and have drafted the proposed order as a voluntary unit.

Sincerely,

  
Karen Aubrey

KA/rs  
Encl.

cc: Ivan Geddie





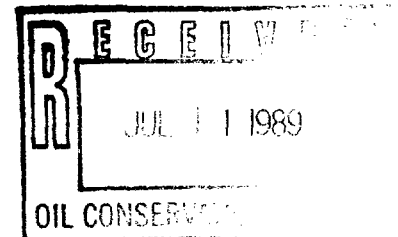
STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

Case No. 9682  
Order No. R-

APPLICATION OF KERR-MCGEE CORPORATION  
FOR STATUTORY UNITIZATION, EDDY COUNTY,  
NEW MEXICO

ORDER OF THE DIVISION



BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 7, 1989 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this \_\_\_\_\_ day of \_\_\_\_\_, 1989, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) At the time of the hearing, this Case was consolidated with Case No. 9683 for the purposes of testimony.

(3) The applicant, Kerr-McGee Corporation sought statutory unitization, pursuant to the "Statutory Unitization Act," Sections 70-7-1 through 70-7-21, of 1280.37 acres, more or less, being a portion of the Chaveroo San Andres Pool, Chaves County, New Mexico; and approval of the plan of unitization and the proposed operating plan. Subsequent to the hearing on this Application, applicant has obtained the consent of 100% of the working interest owners in the proposed unit.



(4) The proposed unit area should be designated the K-M Chaveroo San Andres Unit; and the horizontal limits of said unit area should be comprised of the following described State lands in Chaves County, New Mexico:

All of Sections One and Two, Township 8 South,  
Range 33 East, Chaves County, New Mexico.

5) The horizontal limits of said unit are within the governing Chaveroo San Andres Pool boundaries.

(6) The vertical limits of said Unit Area should comprise the subsurface formation commonly known as the San Andres formation, the vertical limits thereof are found in that stratigraphic interval between 4211 and 4345 feet as measured on the Compensated Formation Density Log run in the Kerr-McGee Corporation State "F" No. 1 well located approximately 660 feet from the North line and 660 feet from the West line of Section 2, Township 8 South, Range 33 East, Chaves County, New Mexico. The unitized formation shall further include all subsurface points throughout the Unit Area correlative to the aforementioned identified depths.

(7) The applicant has made a good faith effort to secure voluntary unitization within the Unit Area and at the time of the hearing over 97 percent of the working interest owners and 100 percent of the royalty interest owners were effectively committed to the unit. Subsequent to the hearing the remaining 3 percent of the working interest owners agreed to voluntarily commit their interest to the unit.

(8) The applicant proposes to institute a waterflood project for the secondary recovery of oil and associated gas, condensate, and all associated liquefiable hydrocarbons within and to be produced from the proposed unit area, all as shown in Division Case 9683.

(9) The proposed secondary recovery operation should result in the additional recovery of approximately 1.66 million barrels of oil.

(10) The unitized management, operation and further development of the K-M Chaveroo San Andres Unit Area, as proposed, is reasonably necessary to effectively carry on secondary recovery operations and will substantially increase the ultimate recovery of oil and gas from the unitized portion of the pool.



(11) The proposed unitized method of operation as applied to the K-M Chaveroo San Andres Unit Area is feasible and will result with reasonable probability in the increased recovery of substantially more oil and gas from the unitized portion of the pool than would otherwise be recovered without unitization.

(12) The estimated additional costs of such operations will not exceed the estimated value of the additional oil so recovered plus a reasonable profit.

(13) Such unitization and adoption of applicant's proposed unitized method of operation will benefit the working interest owners and royalty owners of the oil and gas rights within the Kerr-McGee Chaveroo San Andres Unit Area.

(14) The granting of the application in this case will have no adverse effect upon the San Andres pool and/or the San Andres formation located outside of the proposed K-M Chaveroo San Andres Unit boundary.

(15) The applicant's Unit Agreement and the Unit Operating Agreement were submitted to the Division prior to the hearing, were made a part of the record in this case and should be incorporated by reference into this order.

(16) The K-M Chaveroo San Andres Unit Agreement and the K-M Chaveroo San Andres Unit Operating Agreement provide for unitization and unit operation of the K-M Chaveroo San Andres Unit Area upon terms and conditions that are fair, reasonable and equitable, and include:

- (a) an allocation to the separately owned tracts of the unit area of all oil and gas that is produced from the unit area and which is saved, being the production that is not used in the conduct of unit operations or not unavoidably lost;
- (b) a provision for the credits and charges to be made in the adjustment among the owners in the unit area for their respective investments in wells, tanks, pumps, machinery, materials and equipment contributed to the unit operators;
- (c) a provision governing how the costs of unit operations including capital investment shall be determined and charged to the separately-owned tracts



and how said costs shall be paid, including a provision providing when, how and by whom such costs shall be charged to such owner, or the interest of such owner, and how his interest may be sold and the proceeds applied to the payment of his costs;

- (d) a provision for carrying any working interest owner on a limited, carried or net-profits basis, payable out of production, upon terms and condition which are just and reasonable, and which allow an appropriate charge for interest for such service payable out of production, upon such terms and conditions determined by the Division to be just and reasonable;
- (e) a provision designating the Unit Operator and providing for supervision and conduct of the unit operations, including the selection, removal and substitution of an operator from among the working interest owners to conduct the unit operations;
- (f) a provision for a voting procedure for decisions on matters to be decided by the working interest owners in respect to which each working interest owner shall have a voting interest equal to his unit participation; and
- (g) the time when the unit operation shall commence and the manner in which, and the circumstances under which, the operations shall terminate and for the settlement of accounts upon such termination.

(17) Any working interest owner who has not agreed in writing to participate in the unit prior to the date of this order should be deemed to have relinquished to the unit operator all of his operating rights and working interest in and to the unit until his share of the costs has been repaid, plus an additional 200 percent thereof as a non-consent penalty (Section 70-7-7.F. NMSA 1978).

(18) The voluntary unitization of the K-M Chaveroo San Andres Unit Area is in conformity with the above finding, and will prevent waste and protect correlative rights of all interest owners within the proposed unit area, and should be approved.



IT IS THEREFORE ORDERED THAT:

(1) The application of Kerr-McGee Corporation for the K-M Chaveroo San Andres Unit, covering 1280.37 acres, more or less, of State lands in the Chaveroo San Andres Pool, Chaves County, New Mexico, is hereby approved for voluntary unitization.

(2) The land covered by said K-M Chaveroo San Andres Unit Agreement shall be designated the K-M Chaveroo San Andres Unit Area and shall comprise the following described acreage in Eddy County, New Mexico:

All of Sections One and Two, Township 8 South, Range 33 East, Chaves County, New Mexico

(3) the horizontal limits of said unit are within the governing boundaries of the Chaveroo San Andres pool.

(4) The vertical limits of said Unit Area shall comprise the subsurface formation commonly known as the San Andres formation, the vertical limits thereof are found in that stratigraphic interval between 4211 and 4345 feet as measured on the Compensated Formation Density Log run in the Kerr-McGee Corporation State "F" No. 1 well located approximately 660 feet from the North line and 660 feet from the West line of Section 2, Township 8 South, Range 33 East, Chaves County, New Mexico. The unitized formation shall further include all subsurface points throughout the Unit Area correlative to the aforementioned identified depths.

(5) The applicant shall institute a waterflood project for the secondary recovery of oil and associated gas, condensate and all associated liquefiable hydrocarbons within and produced from the unit area, and said waterflood project is the subject of Division Case No. 9683.

(6) The K-M Chaveroo San Andres Unit Agreement and the K-M Chaveroo San Andres Unit Operating Agreement, which were submitted to the Division prior to this hearing and made a part of the record in this case, are hereby incorporated by reference into this order.



Case No. 9682  
Order No. \_\_\_\_\_  
Page 6

(7) The K-M Chaveroo San Andres Unit Agreement and the K-M Chaveroo San Andres Unit Operating Agreement provide for unitization and unit operation of the Chaveroo San Andres Pool upon the terms and conditions that are fair, reasonable and equitable.

(8) Since the persons owning 100% of the working interest and 100% of the royalty interest in the unit area have approved the Unit Agreement and the Unit Operating Agreement, the unit area is hereby voluntarily unitized.

(10) The applicant as Unit Operator shall notify in writing the Division Director of any removal or substitution of said Unit Operator by any other working interest owner within the unit area.

(11) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

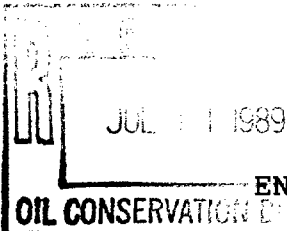
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY  
Director

S E A L





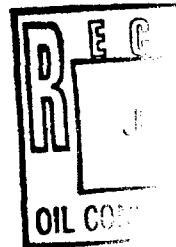
STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

Case No. 9683  
Order No. R-

APPLICATION OF KERR-MCGEE CORPORATION  
FOR WATERFLOOD PROJECT, CHAVES COUNTY,  
NEW MEXICO

ORDER OF THE DIVISION



BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on June 7, 1989 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, this \_\_\_\_\_ day of \_\_\_\_\_, 1989, the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) At the time of the hearing, this Case was consolidated with Case No. 9682 for the purposes of testimony.

(3) The applicant, Kerr-McGee Corporation, seeks authority to initiate a pilot waterflood project within its proposed K-M Chaveroo San Andres Unit, by the injection of water into the San Andres formation through the following described nine existing wells in Township 8 South, Range 33 East, NMPM, Chaveroo San Andres Pool, Chaves County, New Mexico:



WELL NAME AND NUMBER	FOOTAGE LOCATION (UNIT)	PROPOSED INJEC- TION INTERVAL (FEET)
STATE "F" NO. 1	660'FNL - 660'FWL ( )	4211 TO 4345
STATE "F" NO. 4	1980'FNL - 1980'FWL ( )	4200 TO 4328
STATE "F" NO. 5	1980 FSL - 660'FWL ( )	4208 TO 4331
STATE "F" NO. 7	1980 FSL - 1980 FEL ( )	4219 TO 4328
STATE "F" NO. 10	990 FSL - 1980 FWL ( )	4238 TO 4331
STATE "F" NO. 13	990 FSL - 1980 FEL ( )	4241 TO 4336
STATE TR C NO. 1	660 FNL - 1980 FEL ( )	4204 TO 4347
STATE TR C NO. 3	1980 FWL - 660 FEL ( )	4236 TO 4380
STATE TR C NO. 4	660 FNL - 660 FWL ( )	4244 to 4338

(4) The project area should consist of that area within the boundary of the K-M Chaveroo San Andres Unit Area, as described below, which was the subject of Case No. 9682 and was heard in conjunction with this case:

ALL OF SECTION 2, T8S, R33E; AND THE NW/4NW/4, THE NE/4NW/4, AND THE SW/4NW/4, SECTION 1, T8S, R33E, CHAVES COUNTY, NEW MEXICO.

(5) The wells in the project area are in an advanced state of depletion and should be properly classified as "stripper wells".

(6) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(7) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape into other formations or onto the surface from injection, production or plugged and abandoned wells.

(8) Prior to commencing injection operations, the casing in each of the subject wells should be pressure tested throughout the interval, from the surface down to the proposed packer setting depth, to assure integrity of such casing.

(9) The injection wells or injection pressurization system for each well should be so equipped as to limit injection pressure at the wellhead to no more than 800 psi.



(10) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such a higher pressure will not result in migration of the injected waters from the San Andres formation.

(11) The operator should give advance notification to the supervisor of the district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(12) The subject application should be approved and the project should be governed by the provisions of Rules 702 through 708 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Kerr-McGee Corporation, is hereby authorized to institute and operate a pilot waterflood project in the K-M Chaveroo San Andres Unit Area (as described in Finding Paragraph No. (3) of this order) by the injection of water into the San Andres formation through the following described nine existing wells, all in Township 8 South, Range 33 East, NMPM, Chaveroo San Andres Pool, Chaves County, New Mexico:

WELL NAME AND NUMBER	FOOTAGE LOCATION (UNIT)	PROPOSED INJEC- TION INTERVAL (FEET)
STATE "F" NO. 1	660'FNL - 660'FWL ( )	4211 TO 4345
STATE "F" NO. 4	1980'FNL - 1980'FWL ( )	4200 TO 4328
STATE "F" NO. 5	1980 FSL - 660'FWL ( )	4208 TO 4331
STATE "F" NO. 7	1980 FSL - 1980 FEL ( )	4219 TO 4328
STATE "F" NO. 10	990 FSL - 1980 FWL ( )	4238 TO 4331
STATE "F" NO. 13	990 FSL - 1980 FEL ( )	4241 TO 4336
STATE TR C NO. 1	660 FNL - 1980 FEL ( )	4204 TO 4347
STATE TR C NO. 3	1980 FWL - 660 FEL ( )	4236 TO 4380
STATE TR C NO. 4	660 FNL - 660 FWL ( )	4244 TO 4338



PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in each of the subject wells shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's district office.

(2) Injection into each of said wells shall be through 2-3/8 inch internally coated tubing installed in a packer set approximately 100 feet above the uppermost perforation; the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak-detection device.

(3) Each injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 800 psi.

(4) The operator shall notify the supervisor of the district office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure-test in order that the same may be witnessed.

(5) The operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(6) The subject waterflood project is hereby designated the K-M Chaveroo San Andres Unit Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(7) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

(8) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.



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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY  
Director

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