

# MERRION

OIL & GAS

May 31, 1995

Mr. William Lemay  
New Mexico Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87503

Re: **Application for Administrative Approval - Special Pool Rules  
For Unorthodox Locations, Non-Standard Spacing Units,  
and Special Allowables  
To Facilitate Horizontal Drilling  
Media Entrada Unit - Media Entrada Oil Pool  
Sandoval County, New Mexico**

Dear Mr. Lemay:

Merrion Oil & Gas requests administrative approval of special pool rules for the Media Entrada Oil Pool (see Exhibit 1 for land plat) to allow for horizontal drilling within the Media Entrada Unit. This application reviews the justification for horizontal drilling in the Entrada and outlines the pool rules we are requesting.

## **JUSTIFICATION FOR HORIZONTAL DRILLING**

In the Entrada, oil trapped in the top of preserved dunes is underlain by a large aquifer. The strong water drive results in severe water coning around vertical wells, leaving significant "attic" oil undrained between wells at the top of the dune. The use of horizontal wells to tap into that attic oil has proven effective at the Papers Wash Entrada Oil Pool, and again recently at the Eagle Mesa Entrada Oil Pool. We feel this technology could also be successfully applied at the Media Entrada Oil Pool (see Exhibit 2 for remaining net pay map).

## **REQUESTED SPECIAL POOL RULES**

Merrion requests that provisions similar to those approved for the Eagle Mesa Entrada Secondary Unit (Order R-10213 attached as Exhibit 3) be approved for the Media Entrada Unit. In summary, those provisions state the following:

- 1.) Merrion is authorized to institute a short radius drilling pilot project, hereinafter referred to as the "project area", in the Media Entrada Oil Pool within the Media Entrada Unit comprising the following described 580 acres in Sandoval County, New Mexico:

**TOWNSHIP 19N, RANGE 3W, NMPM**

Section 14: S/2 NW/4 and SW/4

Section 15: S/2 NE/4 and SE/4

Section 22: N/2 NE/4 NE/4

Section 23: N/2 NW/4

- 2.) Special operating provisions for additional horizontal or vertical wells within the Media Entrada Unit will be promulgated that allow for:
  - a.) No vertical well or any portion of a horizontal well shall be closer than 330 feet to the outer boundary of the Unit;
  - b.) No surface well location shall be closer than 10 feet to an interior quarter quarter section line;
  - c.) The allowable assigned to the Unit shall be 750 barrels of oil per day times the number of 40 acre tracts that are either developed by conventionally drilled wells or traversed by a horizontal drain hole.

**SUPPORTING INFORMATION**

The following information is provided in support of this request:

- 1.) All of the lands within the project area are unitized. The Unit Agreement covering these lands is attached as Exhibit 4. Ownership within the Unit is common, so all interest owners will benefit proportionately from any well drilled.
- 2.) The proposed rules will protect correlative rights by providing additional drilling, which will benefit the royalty owners.
- 3.) Copies of this application were sent certified mail to the following offset lease owners (see Exhibit 1):

Energy Development Corp.  
1000 Louisiana, Suite 2900  
Houston, Texas 77002

Bureau of Land Management  
Attn: Hector Violobos  
435 Montano NE  
Albuquerque, New Mexico 87107

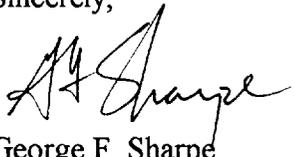
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**SUMMARY**

These proposed rules are needed to allow horizontal wells to be drilled in the Media Entrada Unit. This will protect correlative rights through increased royalty payments. Therefore, we request your prompt attention to this matter.

Please call me at (505) 327-9801 with questions or comments.

Sincerely,

A handwritten signature in cursive script, appearing to read "G. Sharpe".

George F. Sharpe  
Manager - Oil & Gas Investments

xc: Unit File  
Jim Johnson

## **EXHIBITS**

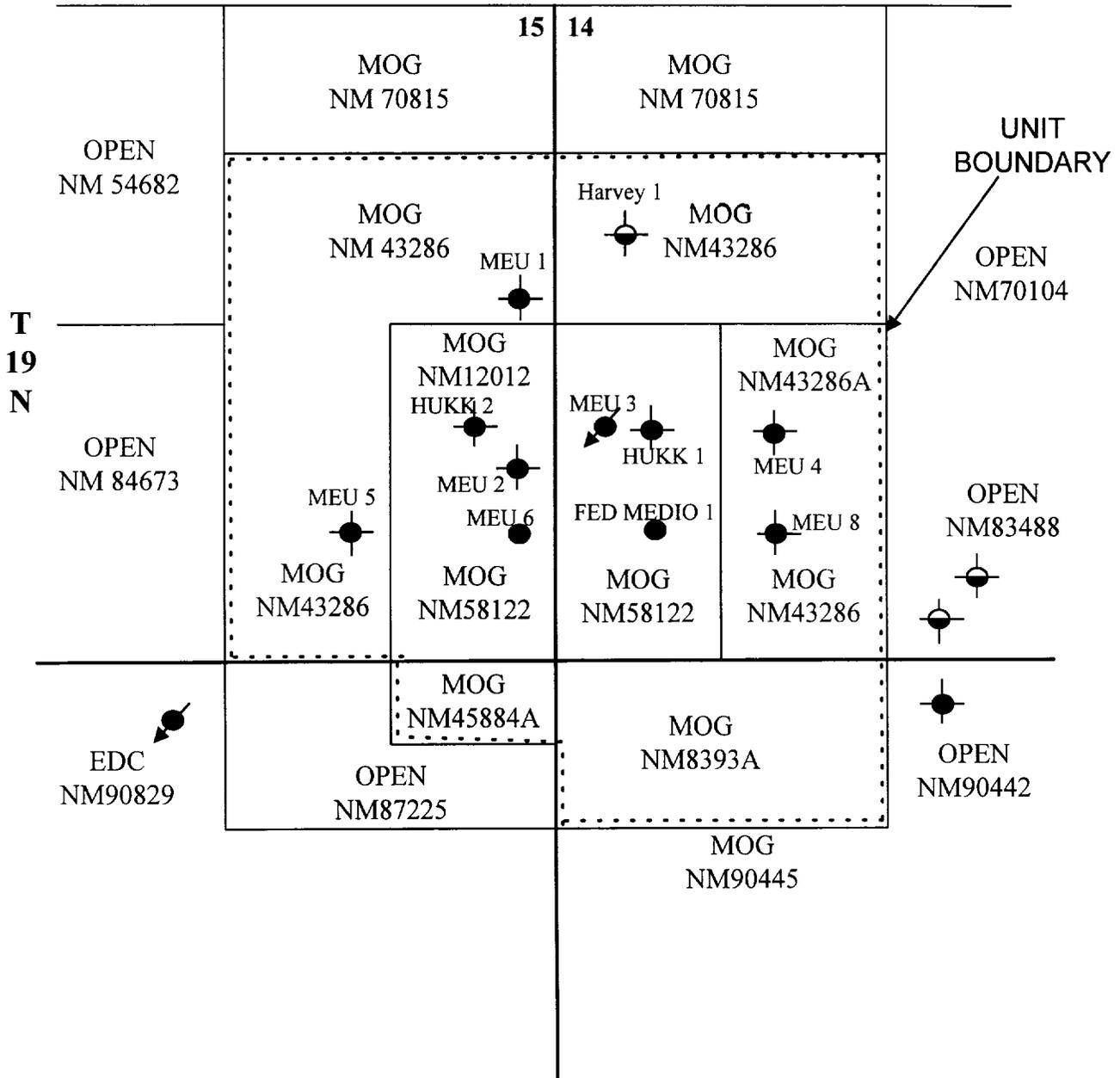
- 1 Land Plat
- 2 Remaining Net Pay Map
- 3 Order R-10213 - Special Operating Rules for the Eagle Mesa Secondary Unit
- 4 Unit Agreement for the Operation of the Media Entrada Unit

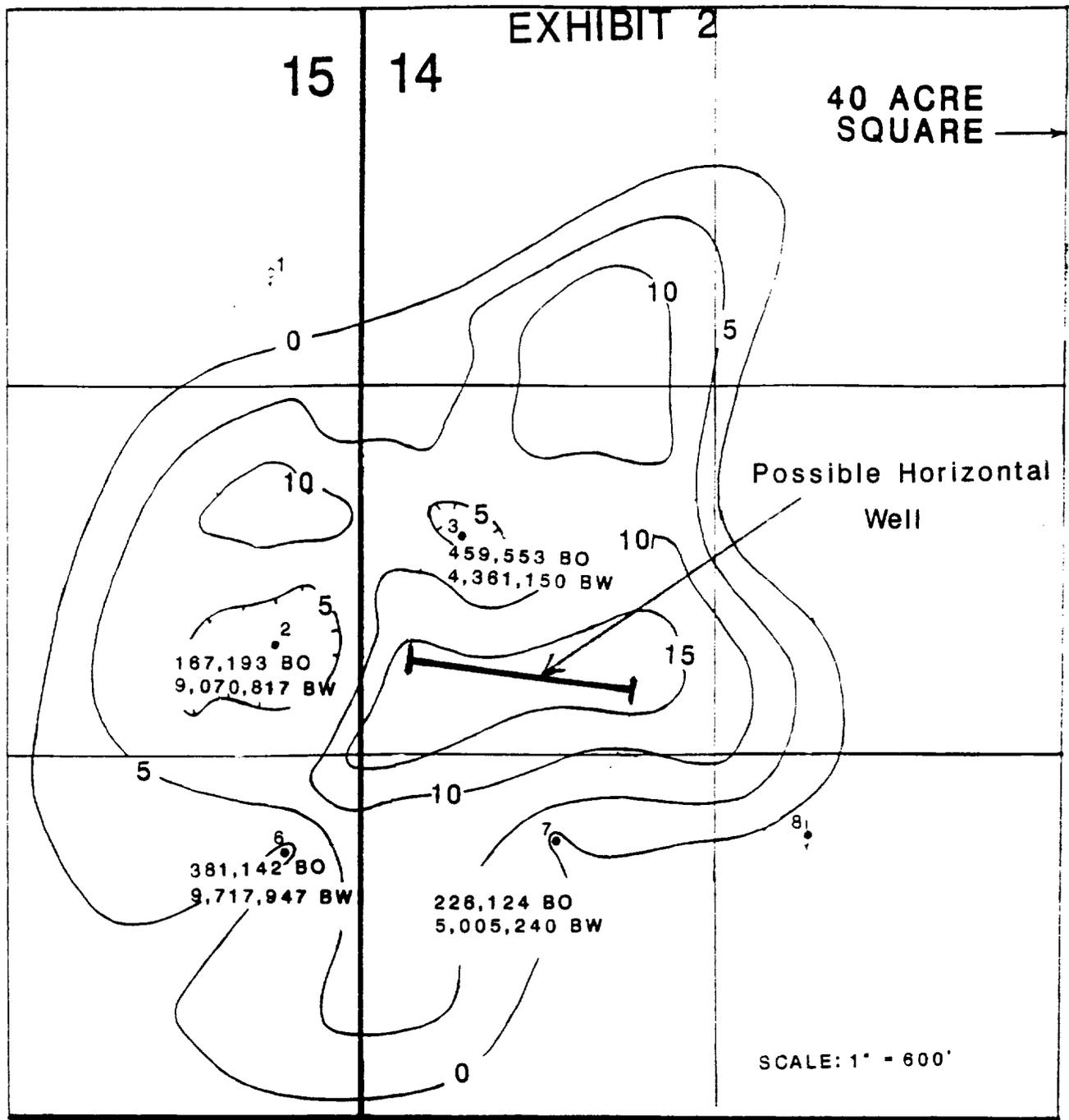
# EXHIBIT 1

## MEDIA ENTRADA UNIT

### LAND PLAT

R 3 W





**MERRION OIL & GAS**  
**MEDIA ENTRADA FIELD**  
**T 19 N R 3 W**  
**SANDOVAL COUNTY, NEW MEXICO**  
**REMAINING NET PAY**

OOIP = 3,160,000 Bbls  
 FIELD CUM = 1,234,012 Bbls  
 HORIZ RESERVES  
 = 142,200 Bbls

# EXHIBIT 3

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. 10971  
ORDER NO. R-10213

APPLICATION OF MERRION OIL & GAS CORPORATION FOR A HIGH  
ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT AND THE  
PROMULGATION OF SPECIAL OPERATING RULES THEREFOR, SANDOVAL  
COUNTY, NEW MEXICO

## ORDER OF THE DIVISION

### BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 12, 1994, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 30th day of September, 1994 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) The applicant in this matter, Merrion Oil and Gas Corporation ("Merrion"), seeks authority to institute a short radius high angle/horizontal directional drilling pilot project, hereinafter referred to as the "project area", in the designated and Undesignated Eagle Mesa-Entrada Oil Pool on its Eagle Mesa Entrada Secondary (Federal) Unit comprising the following described 280 acres in Sandoval County, New Mexico:

### TOWNSHIP 19 NORTH, RANGE 4 WEST, NMPM

Section 11: SE/4 SE/4  
Section 12: SW/4 SW/4  
Section 13: W/2 NW/4  
Section 14: N/2 NE/4 and SE/4 NE/4.

- (3) Within the project area the applicant seeks authority to:
- (a) utilize the existing wellbores on its Federal "12" Well No. 1 (API No. 30-043-20175), located 460 feet from the South line and 330 feet from the West line (Unit M), of said Section 12 and its Navajo 13 "C" Well No. 1 (API No. 30-043-20181), located 430 feet from the North line and 330 feet from the West line (Unit D), of said Section 13 to drill short radius horizontal drainholes a lateral distance of 800 to 1,000 feet;
  - (b) the ability to traverse section, quarter section and quarter-quarter section lines within the project area in order to form non-standard oversized and irregular sized spacing and proration units to accommodate such wellbores;
  - (c) drill the proposed horizontal wellbores to within 330 feet of the outer boundary of the project area; and,
  - (d) the assignment of an allowable for a horizontally drilled well based upon the number of standard 40-acre proration units which are developed or traversed by a horizontal wellbore.

(4) The applicant further seeks the promulgation of special operating rules and procedures within the project area including provisions for administrative authorization of further horizontal wellbores, and the assignment of a special oil allowable or formula for the project area.

(5) The proposed project area is located within the governing limits of the Eagle Mesa-Entrada Oil Pool which is currently administered under the Statewide Rules and Regulations which require standard 40-acre spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit. A special oil allowable of 750 barrels of oil per day and a limiting gas-oil ratio of 2,000 cubic feet of gas per barrel of oil exists for said pool, as promulgated by Division Order No. R-5118, as amended.

(6) The Entrada formation in this area was deposited as an eolian sand overlain by lacustrine limestones and anhydrites of the Todilto formation. The resulting "dune-like" structures, having porosity and permeability, act as the reservoir for trapping the accumulation of oil in the Entrada formation. The Eagle Mesa-Entrada Pool is in contact with a large aquifer and hydrodynamically active fresh ground water flowing to the southwest beneath the oil accumulation. This strong drive acts to tilt the oil-water contact in the direction of flow.

(7) According to the testimony presented by the applicant conventionally drilled (vertical) wells in this pool experience significant "water coning", whereby the water below the oil moves upward to the wellbore, a process that has left a significant amount of "attic" oil sidetracked or by-passed between wells. By drilling horizontally across the top of the structure, the applicant is attempting to drain this otherwise unrecoverable attic oil by alleviating this coning action. Such horizontal drainhole will act to create a small pressure drop along the large area found in a long horizontal drainhole instead of a large pressure drop through a small area available to a vertical wellbore.

(8) Evidence further indicates that once water breakthrough has occurred in a conventionally drilled vertical wellbore, water volume increases dramatically and oil production decreases substantially, resulting in high operating costs. With horizontal drainholes, the poolwide volume of produced water should decrease, thereby lowering operating costs.

(9) Approval of this application is in the best interest of conservation, exhibits sound engineering practices, will serve to prevent the waste of otherwise unrecoverable reserves, and with the formation of a Unit will further serve to protect correlative rights.

(10) Adoption of special procedures allowing for administrative approval of additional horizontal drainholes in the Entrada formation within the Eagle Mesa Entrada Secondary (Federal) Unit will serve to promote such supplemental drilling activity in fields nearing depletion and should aid in expediting any further request to drill drainholes in this Unit without the necessity for additional hearings.

(11) The allowable assigned to either a single proration unit or the project area should be assigned by the supervisor of the Aztec district office of the Division and should be based upon the number of standard 40-acre proration units within the project area which are developed or traversed by a horizontal wellbore.

(12) No offset operator and/or interest owner appeared at the hearing in opposition to the subject application.

(13) The applicant initially proposes to recomplete its Federal "12" Well No. 1 and Navajo 13 "C" Well No. 1 by plugging-back, milling a window in the existing production casing, kick-off from the vertical by milling a window in the existing production casing, drill a short radius curve hole to approximately 90 degrees so as to encounter the upper portion of the oil bearing Entrada sand and continue drilling horizontally a distance of 800 to 1,000 feet.

(14) Certain provisions should be included within this approval to assure orderly development and depletion of this reservoir with horizontal drainholes and the continued protection of correlative rights within the area of this Unit:

- (a) no portion of a wellbore, either vertical or horizontal should be closer than 330 feet to the outer boundary of the Eagle Mesa Entrada Secondary (Federal) Unit;
- (b) the applicant should be required to conduct a directional survey on the vertical portion of a wellbore prior to commencing directional drilling operations, and on the horizontal portion of the wellbore during or subsequent to completion of directional drilling operations in order that direction, extent and terminus of said wellbore may be determined to be in compliance with the terms of this order;
- (c) the applicant should further be required to submit copies of said directional surveys to the Santa Fe and Aztec offices of the Division; and,
- (d) the applicant should notify the supervisor of the Aztec District Office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

**IT IS THEREFORE ORDERED THAT:**

(1) The application of Merrion Oil and Gas Corporation ("Merrion") to institute a short radius high angle/horizontal directional drilling pilot project, hereinafter referred to as the "project area", in the designated and Undesignated Eagle Mesa-Entrada Oil Pool on its Eagle Mesa Entrada Secondary (Federal) Unit comprising the following described 280 acres in Sandoval County, New Mexico, is hereby approved:

**TOWNSHIP 19 NORTH, RANGE 4 WEST, NMPM**

Section 11: SE/4 SE/4  
Section 12: SW/4 SW/4  
Section 13: W/2 NW/4  
Section 14: N/2 NE/4 and SE/4 NE/4.

(2) Merrion is further authorized to proceed with their initial plans to recomplete its existing Federal "12" Well No. 1 (API No. 30-043-20175), located 460 feet from the South line and 330 feet from the West line (Unit M), of said Section 12 and its Navajo 13 "C" Well No. 1 (API No. 30-043-20181), located 430 feet from the North line and 330 feet

from the West line (Unit D), of said Section 13 by plugging-back, milling a window in the existing production casing, kick-off from the vertical by milling a window in the existing production casing, drill a short radius curve hole to approximately 90 degrees so as to encounter the upper portion of the oil bearing Entrada sand and continue drilling horizontally a distance of 800 to 1,000 feet. Provided however that:

- \$ 2500*  
*6430*  
*5208'*
- (a) any drainhole drilled from either of said wellbores may traverse section, quarter section and quarter-quarter section lines within the project area provided that the horizontal or producing portion of any drainhole shall be located no closer than 330 feet from the outer boundary of the project area;
  - (b) the applicant shall determine the actual location of the kick-off points in each well prior to commencing directional drilling operations. Also, the applicant shall conduct a directional survey on the lateral portion of any horizontal wellbore during or after completion of drilling operations;
  - (c) the applicant shall notify the supervisor of the Aztec district office of the Division of the date and time of conductance of any directional surveys in order that the same may be witnessed;
  - (d) the applicant shall submit copies of all directional surveys conducted on the subject well to both the Santa Fe and Aztec offices of the Division; and,
  - (e) the allowable assigned to the proration units designated to each well in the Eagle Mesa-Entrada Oil Pool shall be assigned by the supervisor of the Division's Aztec district office and shall be equal to 750 barrels of oil per day times the number of standard 40-acre tracts within each designated proration unit that are developed/traversed by a horizontal drainhole.
- (3) Special operating provisions for additional horizontal/high angle wellbores within said Eagle Mesa Entrada Secondary (Federal) Unit are hereby promulgated as follows:

**SPECIAL OPERATING RULES AND REGULATIONS  
FOR THE  
EAGLE MESA ENTRADA SECONDARY (FEDERAL) UNIT**

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**RULE 1.** The surface location of any well within said Unit Area shall be located no closer than 330 feet to the outer boundary of the unitized area, nor closer than 10 feet to any section, quarter section, or quarter-quarter section lines or subdivision inner boundary.

**RULE 2.** The Director of the Division may grant an exception to the surface well location requirements of Rule 2 without notice and hearing when an application has been filed for an unorthodox surface well location necessitated by topographic conditions or the recompletion of a well previously drilled to a deeper horizon. All operators and/or owners of undrilled tracts or unleased mineral interests offsetting the proposed location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all operators and/or owners of undrilled tracts or unleased mineral interests offsetting the proposed surface location or if no objection to the unorthodox surface location has been entered within twenty days after the Director has received the application.

**RULE 3.**

- (A). The Director of the Division is hereby authorized to administratively approve intentionally deviated wells in the Eagle Mesa Entrada Secondary (Federal) Unit for the purpose of penetrating the Entrada formation by means of a wellbore drilled horizontally, provided the following conditions are complied with:
- (1) the surface location of the proposed well is a standard location or the applicant has obtained approval of an unorthodox surface oil well location as provided for in Rule (2), above; and,
  - (2) no producing portion of a horizontal wellbore shall enter or exit the Entrada formation outside of a "drilling window" which is not in accordance with the setback requirements of Rule (1), above, provided however, that the aforementioned 10 foot setback distance requirement from any internal subdivision boundary within said Unit Area shall not apply to horizontal drainholes.

- (B). To obtain administrative approval for additional deviated horizontal drainholes within the Unit, the applicant shall file such request in writing with the Aztec and Santa Fe offices of the Division and shall further provide a copy of such application to all operators and/or owners of undrilled tracts or unleased mineral interests offsetting the proposed proration unit for said well by registered or certified mail, and the application shall state that such notice has been furnished. The application shall include the following information:
- (1) a copy of Division Form C-102 identifying the proposed proration unit to be dedicated to the well and any other wells within this proposed unit;
  - (2) a land plat that identifies the ownership of all offsetting tracts to the proposed proration unit; and.
  - (3) schematic drawings of the proposed well completion or recompletion which fully describe the casing, tubing, perforated or openhole interval, kick-off point, and proposed trajectory of the drainhole section.
- (C). The Division Director may approve the application upon receipt of written waivers from all parties described above or if no objection to the intentionally deviated horizontal wellbore has been entered within twenty days after the Director has received the application. If any objection to the proposed intentionally deviated horizontal well is received within the prescribed time limit as described above, the Director shall, at the applicant's request, set said application for public hearing before a Division Hearing Examiner.
- (D). During or upon completion of drilling operations the operator shall further be required to conduct an acceptable directional survey on the vertical and lateral portions of the wellbore and shall submit a copy of said survey to the Santa Fe and Aztec offices of the Division.
- (E). The operator shall notify the supervisor of the Aztec District Office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the proposed well in order that these operations may be witnessed.

- (F). The Director, at his discretion, may set any application for intentionally deviated horizontal wellbores for public hearing before a Division Hearing Examiner.

**RULE 4.** Allowables shall be assigned in the following manner

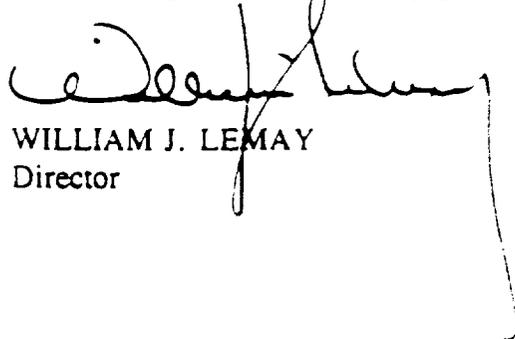
- (A). The allowable assigned to the proration units designated to the Eagle Mesa-Entrada Oil Pool within the Unit Area shall be assigned by the supervisor of the Division's Aztec district office and shall be equal to 750 barrels of oil per day times the number of standard 40-acre tracts within each designated proration unit that are developed/traversed by a horizontal drainhole; or,
- (B). The supervisor of the Division's Aztec district office may assign a "project allowable" based on the number of 40-acre tracts that are either developed by conventionally drilled wells or traversed by a horizontal drainhole. The operator may produce the assigned project allowable from the wells within the project area in any proportion.

**RULE 5.** The Director of the Division may rescind the authority for any horizontal drainhole if the perforated or openhole portion of such wellbore is located closer to the Unit Area boundary than permitted by these rules or if it should appear that such rescission is necessary to prevent waste or protect correlative rights.

(4) 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

# EXHIBIT 4

UNIT AGREEMENT FOR THE OPERATION OF  
THE MEDIA ENTRADA UNIT  
SANDOVAL COUNTY, NEW MEXICO

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PETRO-LEWIS CORPORATION  
DENVER, COLORADO

U N I T   A G R E E M E N T

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UNIT AGREEMENT FOR THE OPERATION OF  
THE MEDIA ENTRADA UNIT  
SANDOVAL COUNTY, NEW MEXICO

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

W I T N E S S E T H :

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

WHEREAS, the term "Working Interest" as used herein  
shall mean the interest held in Unitized Substances or in  
lands containing Unitized Substances by virtue of a lease,  
operating agreement, fee title, or otherwise, which is  
chargeable with and obligated to pay or bear all or a portion  
of the costs of drilling, developing, producing, and operating  
the land under the unit or cooperative agreement. "Royalty  
Interest" as used herein shall mean a right to or interest in  
any portion of the Unitized Substances or proceeds thereof  
other than a Working Interest; and

WHEREAS, the Mineral Leasing Act of February 25, 1920,  
41 Stat. 437, as amended, 30 U. S. C. Sections 181 et seq.,  
authorizes Federal Lessees and their representatives to unite  
with each other, or jointly or separately with others, in

collectively adopting and operating a cooperative or unit plan of development or operation of any oil or gas pool, field or like area, or any part thereof for the purpose of more properly conserving the natural resources thereof whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the Oil Conservation Commission of the State of New Mexico hereinafter referred to as "Commission" is authorized by law (Chap. 72, Laws of 1935, as amended by Chap. 193, Laws of 1937, Chap. 166, Laws of 1941, and Chap. 168, Laws of 1949, Chap. 65, Art. 3, Sec. 14, N.M.S.A., 1953 anno) to approve this Agreement, and the conservation provisions hereof, and

WHEREAS, the parties hereto hold sufficient interests in the Media Entrada Unit Area covering the land hereinafter described to give reasonably effective control of operations herein; and

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

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

SECTION 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid, pertinent regulations, including operating and unit plan regulations heretofore issued thereunder, or valid, pertinent and reasonable regulations hereafter issued thereunder, are accepted and made a part of this Agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this Agreement; and as to non-Federal lands, the oil and gas operating regulations in effect as of the effective date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the State in which the non-Federal land is located, are hereby accepted and made a part of this Agreement.

SECTION 2. UNIT AREA. The area specified on the plat attached hereto marked Exhibit "A" is hereby designated and recognized as constituting the Unit Area, containing 580 acres, more or less.

Exhibit "A" shows, in addition to the boundary of the Unit Area, the boundaries and identity of tracts and leases in said Area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing to the extent known to the Unit Operator the acreage, percentage and kind of ownership of oil interests in all land in the Unit Area. Exhibit "C" attached hereto, is a schedule showing the percentage of participation credited to each Tract in the Unit Area based upon a presumed one hundred percent (100%) commitment. (Tract means each parcel of land described as

such and given a Tract Number on Exhibit "B". Tracts are based on Communitization Agreements as described in Exhibit "D", heretofore approved by the Supervisor as hereinafter defined, as contracted by amendment of Communitization Agreement - SW-662, and as approved as non-standard drilling and proration units by the Oil Conservation Commission of New Mexico.) However, nothing herein or in said schedule or map shall be construed as a representation by any party as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes in the Unit Area render such revision necessary, or when requested by the Oil and Gas Supervisor, hereinafter referred to as "Supervisor", and not less than four (4) copies of the revised exhibits shall be filed with the Supervisor.

SECTION 3. EXPANSION OF UNIT AREA. It is recognized that at some time or times in the future it might be desirable and beneficial to expand the Unit Area to include therein additional Tracts of land. The Unit Area may, therefore, with the approval of the Director of the United States Geological Survey, hereinafter referred to as "Director", be expanded to include therein any additional lands whenever such expansion is necessary or advisable to conform with the purposes of this Agreement, and with prior consent of the Director and Unit Operator, acting on behalf of the Working Interest Owners collectively, after being duly authorized by them as provided for in the

Unit Operating Agreement, has negotiated an agreement or agreements with the owners of such lands fixing the tract participation of each Tract providing for the commitment of the interests of such owners to this Agreement and to the Unit Operating Agreement. Whenever the Unit Area is enlarged so as to admit additional land, qualified for participation, Exhibit "C" shall be revised as set forth in Section 12, Participation and Allocation of Production. Any such expansion shall be effected in the following manner:

- (a) Unit Operator, on its own motion, after preliminary concurrence by the Director, shall prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reasons therefore, and the proposed effective date thereof, preferably the first day of a month subsequent to the date of notice.
- (b) Said notice shall be delivered to the Supervisor, and copies thereof mailed to the last known address of each Working Interest Owner, Lessee, and Lessor whose interests are affected, advising that thirty (30) days will be allowed for submission to the Unit Operator of any objections.
- (c) Upon expiration of the thirty (30) day period provided in the preceding item (b) hereof, Unit Operator shall file with the Supervisor evidence of mailing of the notice of expansion and a copy of any objections thereto which have been filed with the Unit Operator, together with an application (with appropriate joinders in sufficient number) for approval of such expansion.

(d) After due consideration of all pertinent information, the expansion shall, upon approval by the Supervisor and Commissioner become effective as of the date prescribed in the notice thereof.

SECTION 4. UNITIZED LAND AND UNITIZED SUBSTANCES. All land committed to this Agreement as provided in Section 5, Tracts Qualified for Participation, as to the Unitized formation defined immediately below, shall constitute land referred to herein as "Unitized Land" or "land subject to this Agreement". All oil, gas, gaseous substances, sulphur contained in gas, condensate, and all associated and constituent liquid or liquefiable hydrocarbons in the Unitized Formation are unitized under the terms of this Agreement and herein are called "Unitized Substances".

"Unitized Formation" is defined as the Entrada formation found between the depths of 5218' and 5264' in the Fluid Power Pump well No. 1, located 1980' FSL and 330' FWL, Section 14, Township 19 North, Range 3 West, N.M.P.M., on the electric log of said well run on October 22, 1971.

SECTION 5. TRACTS QUALIFIED FOR PARTICIPATION. Inasmuch as the objective of this Agreement is to have lands in the Unit Area operated and entitled to participation under the terms hereof, no joinder shall be considered a commitment to this Agreement unless the Tract involved is qualified under this Section. On or after the effective date hereof, the Tracts within the Unit Area which shall be entitled to participation in the production of Unitized Substances therefrom shall be those Tracts within the Unit Area more particularly described in Exhibit "B" that are qualified as

follows (for the purposes of this section, the record interest shall replace the royalty interest as to Federal land):

(a) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have signed or ratified this Agreement and the Unit Operating Agreement, and Royalty Owners owning seventy-five percent (75%) or more of the royalty created by the basic leases have signed or ratified this Agreement;

(b) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have signed or ratified this Agreement and the Unit Operating Agreement, and Royalty Owners owning less than seventy-five percent (75%) of the royalty interests created by the basic leases have signed or ratified this agreement, and as to which

- (1) all Working Interest Owners in such Tract join in a request for inclusion of such Tract in Unit Participation upon the basis of such commitment status, and further as to which
- (2) seventy-five percent (75%) or more of the combined voting interest of Working Interest Owners in all Tracts which meet the requirements of Subsection 5(a) vote in favor of the acceptance of such Tract as qualified. For the purpose of this Subsection 5(b), the voting interest of each Working Interest Owner shall be equal to the ratio

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

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

Interest Owner shall be equal to the ratio (expressed in percentage) which the total of such Working Interest Owner's percentage participation attributed to Tracts which qualify under Subsections 5(a) and 5(b) bears to the total percentage of all Working Interest Owners attributed to all Tracts which qualify under Subsections 5(a) and 5(b), as such percentages are set out in Exhibit "C".

SECTION 6. UNIT OPERATOR. Petro-Lewis Corporation is hereby designated as Unit Operator, and by signature hereto as Unit Operator agrees and consents to accept the duties and obligations of Unit Operator for the development and production of Unitized Substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interest in Unitized Substances, and the term "Working Interest Owner" when used herein shall include or refer to Unit Operator as the Owner of a Working Interest when such an interest is owned by it.

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 that Operator's rights as such for a period of six (6) months after notice of intention to resign has been served by Unit Operator on all Working Interest Owners, the Supervisor, and until all wells are placed in a satisfactory

condition for suspension or abandonment whichever is required by the Supervisor, unless a new Unit Operator shall have been selected and accepted and shall have taken over and assumed the duties and obligations of Unit Operator prior to the Expiration of said period.

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

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

The resignation or removal of Unit Operator under this Agreement shall not terminate its rights, title or interest as the owner of a working interest or other interest in Unitized Substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all wells, equipment, materials

and appurtenances used in conducting the Unit operations and owned by the Working Interest Owners to the new duly qualified successor Unit Operator or to the owners thereof if no such new Unit Operator is elected, to be used for the purpose of conducting Unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material equipment and appurtenances needed for the preservation of any wells.

SECTION 8. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender his or its resignation as Unit Operator or shall be removed as hereinabove provided, or a change of Unit Operator is negotiated by Working Interest Owners, a successor Unit Operator shall be selected by Working Interest Owners voting according to their respective Tract participation in all unitized land by a majority vote, provided, that, if a majority but less than 80 percent of the Working Interests qualified to vote are owned by one party to this Agreement, a concurring vote of one or more additional Working Interest Owners shall be required to select a new Operator. Such selection shall not become effective until:

(a) A Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator; and

(b) The selection shall have been approved by the Supervisor.

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

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING

AGREEMENT. If the Unit Operator is not the sole owner of Working Interest, costs and expenses incurred by Unit Operator in conducting Unit Operations hereunder shall be paid and apportioned among and borne by the owners of Working Interests, all in accordance with the agreement or agreements, whether one or more, separately or collectively, entered into by and between the Unit Operator and the owners of Working Interests. Any agreement or agreements, whether one or more, entered into between the Working Interest Owners and the Unit Operator as provided in this section are herein referred to as the "Unit Operating Agreement".

Such Unit Operating Agreement shall also set forth such other rights and obligations as between Unit Operator and the Working Interest Owners as may be agreed upon by Unit Operator and the Working Interest Owners; however, no such Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this 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.

Two (2) true copies of any Unit Operating Agreement executed pursuant to this section shall be filed with the Supervisor prior to approval of this Agreement, and thereafter promptly after any revision or amendment.

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

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

Inasmuch as the primary purpose of this Agreement is to permit the institution and consummation of a secondary recovery or pressure maintenance program for the maximum economic production of Unitized Substances consistent with good engineering and conservation practices, Unit Operator, concurrently with the filing of this Agreement for approval shall submit to the Supervisor, a Plan of Operation for the Unitized Land, and upon approval thereof by the Supervisor, such plan shall constitute the future operating

obligations of the Unit Operator under this Agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for like approval a plan for an additional specified period of operation; said plan or plans shall be modified or supplemented when necessary to meet changed conditions, or to protect the interest of all parties to this Agreement. Reasonable diligence shall be exercised in complying with the obligations of any approved Plan of Operation.

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

SECTION 12. TRACT PARTICIPATION. In Exhibit "C" attached hereto there are listed and numbered the various Tracts within the Unit Area, and set forth opposite each

Tract are figures which represent the Tract Participation if all Tracts in the Unit Area qualify as provided herein. The Tract Participations of each Tract as shown in Exhibit "C" were determined in accordance with the following formula:

A single phase formula based on:

- 30% Floodable Acre Feet
- 25% Present Productive Acres
- 25% Production Prior to Installation of High Volume Lift Equipment
- 20% Cumulative Production

the terms utilized in the formula being defined as follows:

"Floodable Acre Feet" - The volume of reservoir which has not been affected by water influx as of June 1, 1974.

"Present Productive Acres" - The area within the ten-foot isopach contour as shown on the isopach maps contained in the Engineering Report, Exhibit "E".

"Production Prior to Installation of High Volume Lift Equipment" - Production for the months of May, June and July, 1973.

"Cumulative Production" - All production from the Pool prior to May 31, 1974.

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

If after the effective date of this Agreement any Tract or Tracts are subsequently committed hereto and qualified because of expansion of the Unit Area under Section 3, Expansion of Unit Area, or any tract or tracts are subsequently qualified under the provisions of Section 5, Tracts Qualified for Participation or under the provisions of Section 30, Subsequent Joinder, or if any Tract is eliminated from this Agreement as provided in Section 29, Loss of Title, the schedule of participation as shown in Exhibit "C" shall be revised by the Unit Operator to show the new Tract Participation of all the then qualified Tracts, and the revised Exhibit "C", upon approval by the Supervisor, shall govern the allocation of production from the effective date thereof until a new schedule is so approved. In any such revised Exhibit "C", pursuant to this paragraph, the Tract Participation of the previously qualified Tracts shall remain in the same ratio one to the other.

On the effective date of this Agreement, and thereafter, all Unitized Substances produced hereunder (except any part thereof used in conformity with good operating practices for drilling, operating, camp and other production or development purposes, for pressure maintenance or secondary recovery operations in accordance with a plan of operation approved by the Supervisor, or unavoidably lost), shall be deemed to be produced from the several Tracts of Unitized Land, and for the purpose of determining any benefits accruing under this Agreement each such Tract shall have allocated to it that percentage

of said production equal to its Tract Participation effective hereunder during the respective period such Unitized Substances were produced, as set out in Exhibit "C".

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

SECTION 13. ROYALTY SETTLEMENT. The State of New Mexico, the United States and all Royalty Owners who, under existing contract, are entitled to take in kind a share of the substances now unitized hereunder produced from any tract, shall hereafter be entitled to the right to take in kind their share of the Unitized Substances allocated to such tract, and Unit Operator shall make deliveries of such royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for Royalty Interest not taken in kind shall be made by Working Interest Owners responsible therefore under existing contracts, laws and regulations on or before the last day of each month for

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

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

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

Royalty due the United States shall be computed as provided in the operating regulations and paid in value or delivered in kind as to all Unitized Substances on the Basis of the amounts thereof allocated to unitized Federal land as provided herein at the rate specified in the respective Federal leases, or at such lower rates as may be authorized by law or regulations; provided that for leases on which the royalty rate depends on the daily average production per well, said average production shall be determined in accordance with the operating regulations as though the Unitized Lands were a single consolidated lease.

SECTION 14. RENTAL SETTLEMENT. Rental or minimum royalties due on leases committed hereto shall be paid by Working Interest Owners responsible therefore under existing contracts, laws and regulations, provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty in lieu thereof due under their leases. Rental and minimum royalty for lands of the United States subject to this Agreement shall be paid at the rate specified in the respective leases from the United States unless such rental or minimum royalty is waived, suspended or reduced by law or by approval of the Secretary of the Interior of the United States hereinafter referred to as "Secretary", or his duly authorized representative.

SECTION 15. CONSERVATION. Operations hereunder and production of Unitized Substances shall be conducted to

provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to State or Federal law or regulation.

SECTION 16. DRAINAGE. The Unit Operator shall take appropriate and adequate measures to prevent drainage of Unitized Substances from Unitized Land by wells on land not subject to this Agreement or, with prior consent of the Director pursuant to applicable regulations, pay a fair and reasonable compensatory royalty as determined by the Supervisor. In the event compensatory royalty is so paid, it shall be treated in the same manner as Unitized Substances.

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

wells on such Tract and the amount of overproduction has been sold or otherwise disposed of, such overproduction shall be regarded as a part of the Unitized Substances produced after the effective date hereof and shall be charged to such Tract as having been delivered to the parties entitled to Unitized Substances allocated to such Tract.

SECTION 18. LEASE AND CONTRACTS CONFORMED AND EXTENDED.

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

- (a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every part or separately owned Tract subject to this Agreement, regardless of whether there is any develop-

ment of any particular part or Tract of the Unitized Land, notwithstanding anything to the contrary in any lease, operating agreement, communitization agreement, or other contracts by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling and producing operations performed hereunder upon any Tract of Unitized Land will be accepted and deemed to be performed upon and for the benefit of each and every Tract of Unitized Land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.

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

(d) Each lease, sublease or contract relating to the exploration, drilling, development or operation for oil or gas of lands committed to this Agreement which, by its terms might expire prior to the termination of this Agreement, is hereby extended beyond any such term so provided therein so that it shall be continued in full force and effect for and during the term of this Agreement.

(e) Termination of this Agreement shall not affect any lease which, pursuant to the terms thereof or any

applicable laws, shall continue in force and effect thereafter.

(f) The segregation of any Federal lease committed to this Agreement is governed by the following provision in the fourth paragraph of Section 17 (j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960, (74 Stat. 781-784): "Any (federal) lease heretofore or hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization; Provided, however, that any such lease as to the non-unitized portion shall continue in force and effect for the term thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

SECTION 19. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates and any grant, transfer, or conveyance, of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee, or other successor in interest. No assignment or transfer of any Working Interest shall be binding upon Unit Operator nor shall any transfer

of any Royalty Interest or other interest be binding on the Working Interest Owners responsible for payment or settlement thereof, until the first day of the calendar month after Unit Operator or the responsible Working Interest Owner, as the case may be, is furnished with the original, photostat or certified copy of the instrument of transfer.

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

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

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

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

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

If not specified otherwise by the leases unitized

under this Agreement, basic Royalty Owners hereby grant Working Interest Owners a period of six (6) months after termination of this Agreement in which to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit operations.

Unit Operator shall, within thirty (30) days after the termination of this Agreement has been determined, pursuant to Section 8 or 22 hereof, file for record in the office or offices where a counterpart of this Agreement is recorded, a certificate setting forth the fact of such termination and the date thereof.

SECTION 23. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. The Director is hereby vested with authority to alter or modify from time to time in his discretion the quantity and rate of production under this Agreement when such quantity and rate is not fixed pursuant to Federal or State law or does not conform to any statewide voluntary conservation or allocation program, which is established, recognized and generally adhered to by the majority of operators in such State, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification. Without regard to the foregoing, the Director is also hereby vested with authority to alter or modify from time to time in his discretion the rate of prospecting and development and the quantity and rate of production under this Agreement when such alteration or

modification is in the interest of attaining the conservation objectives stated in this Agreement and is not in violation of any applicable Federal or State law.

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

SECTION 24. APPEARANCES. Unit Operator shall, after notice to other parties affected, have the right to appear for and on behalf of any and all interest affected hereby before the Department of the Interior and to appeal from orders issued under the regulations of said Department or to apply for relief from any of said regulations or in any proceedings relative to operations before the Department of the Interior or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his own expense to be heard in any such proceeding.

SECTION 25. NOTICES. All notices, demands or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given, if given in writing or personally delivered to the party or sent by postpaid registered or certified mail, addressed to such party at the address such party has furnished to the party sending the notice, demand or statement.

SECTION 26. NO WAIVER OR CERTAIN RIGHTS. Nothing in this Agreement contained shall be construed as a waiver by

any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the State of New Mexico, or of the United States, or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive; provided, however, each party hereto except the United States covenants that during the existence of this Agreement, such party shall not resort to any action at law or in equity to partition the Unitized Land or the facilities used in the development or operation thereof and to that extent waives the benefits of all laws authorizing such partition.

SECTION 27. UNAVOIDABLE DELAY. All obligations under this Agreement, except the payment of money, shall be suspended while, but only so long as, the Unit Operator despite the exercise of due care and diligence is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or municipal law or agencies, unavoidable accidents, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

SECTION 28. NON-DISCRIMINATION. In connection with the performance of work under this Agreement, the Unit Operator agrees to comply with all the provisions of Section 202 (1) to (7) inclusive, of Executive Order 11246,

30 F.R. 12319, as amended, which are hereby incorporated by reference in this Agreement.

SECTION 29. LOSS OF TITLE. In the event title to a Tract of Unitized Land shall fail so as to render the Tract inoperable under this Agreement and the true owner cannot be induced to join this Agreement, such Tract shall be automatically regarded as not committed hereto effective the first day of the calendar month in which such title failure is determined, and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title as to any Royalty, Working Interest or other interest subject thereto, payment or delivery on account thereof may be withheld without liability or interest until the dispute is finally settled; provided that, as to State and Federal land or leases, no payment of funds due the State of New Mexico or the United States of America shall be withheld, but such funds shall be deposited as directed by the Supervisor, to be held as unearned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

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

be the owner thereof shall be reduced proportionately and the interest of all parties in the affected Tract or Tracts shall be adjusted accordingly.

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

SECTION 30. SUBSEQUENT JOINDER. After the effective date of this Agreement, the commitment of any interest in any Tract within the Unit Area shall be upon such equitable terms as may be negotiated by Working Interest Owners and the owner of such interest. After the effective date hereof, joinder by a Royalty Owner must be consented to in writing by the Working Interest Owner committed hereto and responsible for the payment of any benefits that may accrue hereunder in behalf of such Royalty Interest. Joinder by any Royalty Owner at any time must be accompanied or preceded by appropriate joinder by the Owner of the corresponding Working Interest in order for the interest to be regarded as effectively committed. Joinder to 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 committed to this Agreement. Except as may otherwise herein be provided, subsequent joinders to this Agreement shall be effective as of the first day of the month following the filing with the Supervisor and Commissioner of duly executed counterparts of all or any papers necessary to establish

commitment of any Tract to this Agreement unless objection to such joinder is made within sixty (60) days by the Supervisor.

SECTION 31: COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instrument in writing specifically referring hereto and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the land within the above-described Unit Area.

In the event any of the parties hereto own both Working Interests and Royalty Interests, as such interests are shown on Exhibit "B", it shall not be necessary for such party to execute this Agreement in both capacities in order to commit both classes of interest. Execution hereof by any such party in one capacity shall also constitute execution in the other capacity, provided said party also executes the Unit Operating Agreement as a Working Interest Owner.

SECTION 32. ROYALTY OWNERS TAXES. Each party hereto shall, for its own account, render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the Unitized Land; provided, however, that, if it is required or if it be

determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes shall be reimbursed therefor by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated share of said Unitized Substances. No taxes shall be charged to the United States, 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 33. NO PARTNERSHIP. It is expressly agreed that the relation of the parties hereto is that of independent contractors and nothing in this Agreement contained, expressed or implied, nor any operations conducted hereunder, shall create or be deemed to have created a partnership or association between the parties hereto or any of them.

SECTION 34. BORDER AGREEMENTS. Unit Operator, with concurrence of Working Interest Owners having a combined Unit Participation of seventy-five (75) percent or more, may, subject to approval of the Supervisor, enter into an agreement or agreements with the Working Interest Owners of adjacent lands with respect to the operations designed to increase ultimate recovery of oil and/or gas from the Unitized Formation, conserve natural resources, prevent waste, and protect the correlative rights of the parties.

SECTION 35: CORRECTION OF ERRORS. It is hereby agreed by all parties to this Agreement that Unit Operator is empowered to correct any mathematical or clerical errors which may exist in the pertinent exhibits to this Agreement;

provided, however, that correction of any error other than mathematical or clerical shall be made by Unit Operator only after first having obtained approval of Working Interest Owners and the Supervisor. If any such corrections are made, Unit Operator shall file the required number of copies of the corrected pages of this Agreement or of the Exhibits hereto with the Supervisor. Unit Operator shall also provide, in conformance with Section 26, Notices, and such corrected pages to the parties hereto.

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

PETRO-LEWIS CORPORATION  
Unit Operator

By *M. J. Brown*  
President

ATTEST:

*J. Kenney Shipman*  
asst. Secretary

DATED: \_\_\_\_\_

PARTNERSHIP PROPERTIES COMPANY  
Working Interest Owner

By *David A. Hawley*  
General Partner *DAH*

DATED: \_\_\_\_\_

FLUID POWER PUMP COMPANY  
Working Interest Owner

By *George J. Slaughter*  
President

ATTEST:

*Nelma E. McCluskey*  
Secretary

DATED: 8-12-75

STATE OF Colorado )  
COUNTY OF Denver ) ss.

The foregoing instrument was acknowledged before me this 15<sup>th</sup> day of August, 1975, by Wilfred C. Leppert, V-P of PETRO LEWIS CORPORATION, a Colorado Corporation, on behalf of said Corporation.

(SEAL)

Carol L. McDehee  
NOTARY PUBLIC

My Commission Expires:

My Commission Expires Oct. 1, 1977

STATE OF Colorado )  
COUNTY OF Denver ) ss.

The foregoing instrument was acknowledged before me this 15<sup>th</sup> day of August, 1975, by Wanda G. Lawless a General Partner on behalf of PARTNERSHIP PROPERTIES COMPANY, a limited partnership.

(SEAL)

Carol L. McDehee  
NOTARY PUBLIC

My Commission Expires:

My Commission Expires Oct. 1, 1977

STATE OF Minnesota )  
COUNTY OF Shelby ) ss.

The foregoing instrument was acknowledged before me this 15<sup>th</sup> day of August, 1975, by James H. Henschel of FLUID POWER PUMP COMPANY, a Minnesota Corporation, on behalf of said Corporation.

(SEAL)

Carroll H. Henschel  
NOTARY PUBLIC

My Commission Expires:

July 1, 1979

EXHIBIT "C" TO UNIT AGREEMENT

MEDIA ENTRADA UNIT

<u>TRACT NO.</u>	<u>DESCRIPTION</u>	<u>PARTICIPATION (%)</u>
1	Sec. 15, T19N, R3W S/2 NE/4 & N/2 SE/4	18.4592
2	Sec. 14, T19N, R3W S/2 NW/4 & N/2 SW/4	35.3247
3	Sec. 15, T19N, R3W S/2 SE/4 & Sec. 22, T19N, R3W N/2 NE/4 NE/4	24.2523
4	Sec. 14, T19N, R3W S/2 SW/4 & Sec. 23, T19N, R3W N/2 NW/4	21.9638
		<u>100.0000%</u> ✓

EXHIBIT "D" TO UNIT AGREEMENT

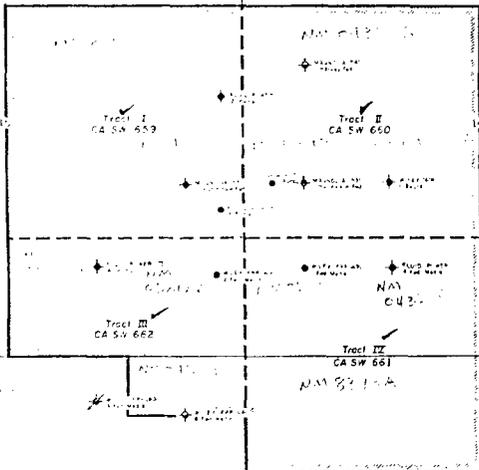
MEDIA ENTRADA UNIT

COMMUNITIZATION AGREEMENTS  
AND DESCRIPTION

Communitization Agreement Com. Agr. - SW-659, dated 7/28/72 S/2 NE/4 & N/2 SE/4 Sec. 15, T19N, R3W, NMPM	18.4592
Communitization Agreement Com. Agr. - SW-660, dated 7/28/72 S/2 SW/4 & N/2 SW/4 Sec. 14, T19N, R3W, NMPM	35.3247
Communitization Agreement Com. Agr. - SW-662, dated 8/1/72 (as amended) S/2 SE/4 Sec. 15 & N/2 NE/4 NE/4 Sec. 22, T19N, R3W, NMPM	24.2523
Communitization Agreement Com. Agr. - SW-661 dated 7/28/72 S/2 SW/4 Sec. 14 & N/2 NW/4 Sec. 23, T19N, R3W, NMPM	21.9638
	<u>100.0000%</u>

R 3 W

PROPOSED UNIT  
BOUNDARY



T  
19  
N

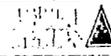


Exhibit "A"

### MEDIA ENTRADA UNIT

SAN JOAQUIN COUNTY, NEW MEXICO

(ALL FEDERAL ACREAGE)

Date: May 28, 1975

TO THE UNIT AGREEMENT FOR MEDIA ENTRADA UNIT, SANDOVAL COUNTY, NEW MEXICO

TRACT NO.	DESCRIPTION OF LAND	NO. OF ACRES	SERIAL NUMBER	BASIC ROYALTY & PERCENTAGE	RECORD LESSEE & PERCENTAGE	OVERRIDING ROYALTY & PERCENTAGE	WORKING INTEREST OWNER & PERCENTAGE
1*	T-19-N, R-3W SEC. 15: NE/4 SE/4	40	NM-12012 10/1/70 HBP	USA-All 12.5% - 25% Oil 12.5% - 16.75% Gas	Partnership Properties Co. 50% Fluid Power Pump Company 50%	Butler & Co:berg Val R. Reese Partnership Properties Co. Texas Northeast Oil & Gas Company P. H. Hartman John M. Beard Beard Oil Company Bruce Anderson Val R. Reese Butler & Co:berg Partnership Properties Co. Texas Northeast Oil & Gas Co.	Partnership Properties Co. 50% Fluid Power Pump Co. 50%

Sec. 15: S/2 NE/4  
NW/4 SE/4

NM-043286  
9/1/59  
HBP

USA-All  
12.5%

- ✓ CHECKS WITH ROSWELL RECORDS
- ✓ EXECUTED UNIT AGREEMENT
- ✓ EXECUTED UNIT OPERATING AGREEMENT

TRACT NO.	DESCRIPTION OF LAND	NO. OF ACRES	SERIAL NUMBER	BASIC ROYALTY & PERCENTAGE	RECORD LESSEE & PERCENTAGE	OVERRIDING ROYALTY & PERCENTAGE	WORKING INTEREST OWNER & PERCENTAGE
2*	T-19-N-R34 Sec. 14 S/2 NW/4	80	NM-043286-A 9/1/59 HBP	USA-All 12.5%	Partnership Co. 50% Fluid Power Pump Company 50%	Butler & Colberg Val R. Reese Partnership Properties Co. Texas Northeast Oil & Gas Company F. H. Hartman John M. Beard Beard Oil Company Bruce Anderson Val R. Reese Butler & Colberg Partnership Properties Co. Texas Northeast Oil & Gas Co.	Partnership Properties Co. 50% Fluid Power Pump Co. 50%
	Sec. 14: NE/4 SW/4	40	NM-043286-A 9/1/59 HBP	USA-All 12.5%	F. H. Hartman John M. Beard Beard Oil Company Bruce Anderson Val R. Reese Butler & Colberg Partnership Properties Co. Texas Northeast Oil & Gas Company	.1250% 2.0937% 6.2812% 4.0000% 1.0000% .2500% 2.4750% .2750%	
	Sec. 14: NW/4 SW/4	40	NM-12012 10/1/70 HBP	USA-All Sliding Scale 12.5% - 25% oil 12.5% - 16.75% gas	Butler & Colberg Val R. Reese Partnership Properties Co. Texas Northeast Oil & Gas Company	.5000% 2.0000% 12.0000% 1.4000%	

TRACT NO.	DESCRIPTION OF LAND	NO. OF ACRES	SERIAL NUMBER	BASIC ROYALTY & PERCENTAGE	RECORD LESSEE & PERCENTAGE	OVERBURDENING AGREEMENTS & PERCENTAGE	MINOR INTERESTS & PERCENTAGE
3*	T-19-N-R-3W Sec. 15: SW/4 SE/4	40	NM-043286 9/1/59 HBP	USA-All 12.5%	Partnership Properties Co. 50% Fluid Power Pump Company 50% F. H. Hartman John M. Beard Beard Oil Co. Bruce Anderson Val R. Reese Butler & Colberg Partnership Properties Co. Texas Northeast Oil & Gas Co.	Partnership Properties Co. 50% Fluid Power Pump Co. 50%	
	Soc. 15: SE/4 SE/4	40	NM-058122 2/1/60 HBP	USA-All 12.5%	R. E. McKenzie Jr. and Agatha P. McKenzie Eugenia Bate Barbara Talento John K. Reimer and Geraldine P. Reimer Val R. Reese Butler & Colberg Partnership Properties Co. Texas Northeast Oil & Gas Co.	1.0625% 1.5469% 4.6406% 6.2500% 1.7500% .2500% 2.7000% .3000% 1.0000% .5000% .5000% 5.0000% 1.0000% .2500% 7.4250% .8250%	
	Soc. 22: N/2 NE/4 NE/4	20	NM-045884 12/1/59 HBP	USA-All 12.5%	Duncan Miller R. O. Burbridge Partnership Properties Co. Val R. Reese Butler & Colberg Texas Northeast Oil & Gas Co.	5.0000% 3.0000% 5.9250% 1.7500% .2500% .5750%	

10

TRACT NO.	DESCRIPTION OF LAND	ACRES	SERIAL NUMBER	PERCENTAGE	PROPERTY	PERCENTAGE
4*	T-19-N-R3W Sec. 14: SE/4 SW/4	40	NM-043286 9/1/59 HBP	USA-All 12.5%	Partnership Properties Co. 50% Fluid Power Pump Company 50%	Partnership Properties Co. 50% Fluid Power Pump Co. 50%
	Soc. 14: SW/4 SW/4	40	NM-058122 2/1/60 HBP	USA-All 12.5%	R. E. McKenzie Jr. and Agnaha McKenzie Eugenia Hite Barbara Talento John K. Reiner and Geraldine P. Reiner Val R. Reese Butler & Colberg Partnership Properties Co. Texas Northeast Oil & Gas Co.	.0625% 1.5469% 4.6406% 6.2500% 1.7500% .2500% 2.7000% .3000%
	Sec. 23: N/2 NW/4	80	NM-8393A 1/1/69 HBP	USA-All 12.5%	Billie Robinson Partnership Properties Co. Val R. Reese Butler & Colberg Texas Northeast Oil & Gas Company	2.7500% 10.8500% 1.0000% 1.0000% .8250%

\*The individual leases in Tracts 1, 2, 3 and 4 have been communitized as to each individual tract, as shown on Exhibit "D" attached to the Unit Agreement.

LEASE	ACRES IN LEASE	ACRES IN UNIT	PERCENTAGE
NM 043286	40	40	YES
NM 043286-A	40	40	NO
NM 045884-A	320	20	YES
NM 058122	80	80	YES
NM 2393-A	1360	80	YES
NM 12012	80	80	NO

Exhibit "A"  
 Media Entrada Field  
 Sandoval County, New Mexico  
 Federal Media #7  
 Property Number NM-BE-01-062-01  
 Federal Miller #7-22  
 Property Number NM-BE-01-062-03  
 Federal Media #8  
 Property Number NM-BE-01-062-04

A 100.00% interest in and to the leasehold estate created by:

NM-BE-01-073 - United States of America Lease No. NM28241 (segregated out of NM045884-A), dated effective December 1, 1959, issued to Duncan Miller.

INSOFAR AND ONLY INSOFAR as said lease covers and pertains to the following described land:

Township 19 North, Range 3 West, NMPM

Section 22: S/2 NE/4 NE/4, NW/4 NE/4,  
 S/2 NE/4, SE/4

SUBJECT TO THE FOLLOWING:

1. A proportionate part of all lessor's royalty, overriding royalties and other burdens on production.
2. Contract Number: 344NM01A, Operating Agreement, dated May 29, 1973, by and between Petro-Lewis Corporation, Operator, and Partnership Properties Co. and Fluid Power Pump Company, Non-Operator.
3. Crude Oil Purchase Contract 00030, between Petro-Lewis Corporation, as Seller, and Permian Corporation, as Purchaser, effective 3/1/84 (NMBE0106204, Federal Media #8).
4. Preferential Right to Production dated April 18, 1978, between Petro-Lewis Corporation and Continental Oil Company (NMBE0106203, Federal Miller 7-22).

OPERATING INTEREST.....	100.000000%
FEDERAL MILLER 7-22	
NET REVENUE INTEREST.....	76.772136%
FEDERAL MEDIA #7	
FEDERAL MEDIA #8	
NET REVENUE INTEREST.....	76.690941%

CERTIFICATION--DETERMINATION

Pursuant to the authority vested in the Secretary of Interior, under the act approved February 25, 1920, 41 Stat. 437, as amended, 30 U. S. C. secs. 181, et seq., and delegated to the Area Oil and Gas Supervisors of the Geological Survey, I do hereby:

A. Approve the attached agreement for the development and operation of the Media Entrada Unit Area, State of New Mexico.

B. Certify and determine that the unit plan of development and operation contemplated in the attached agreement is necessary and advisable in the public interest for the purpose of more properly conserving the natural resources.

C. Certify and determine that the drilling, producing, rental, minimum royalty, and royalty requirements of all Federal leases committed to said agreement are hereby established, altered, changed, or revoked to conform with the terms and conditions of this agreement.

Dated October 10, 1975.

  
Acting Area Oil and Gas Supervisor  
United States Geological Survey

Contract Number 14-08-0001-14269