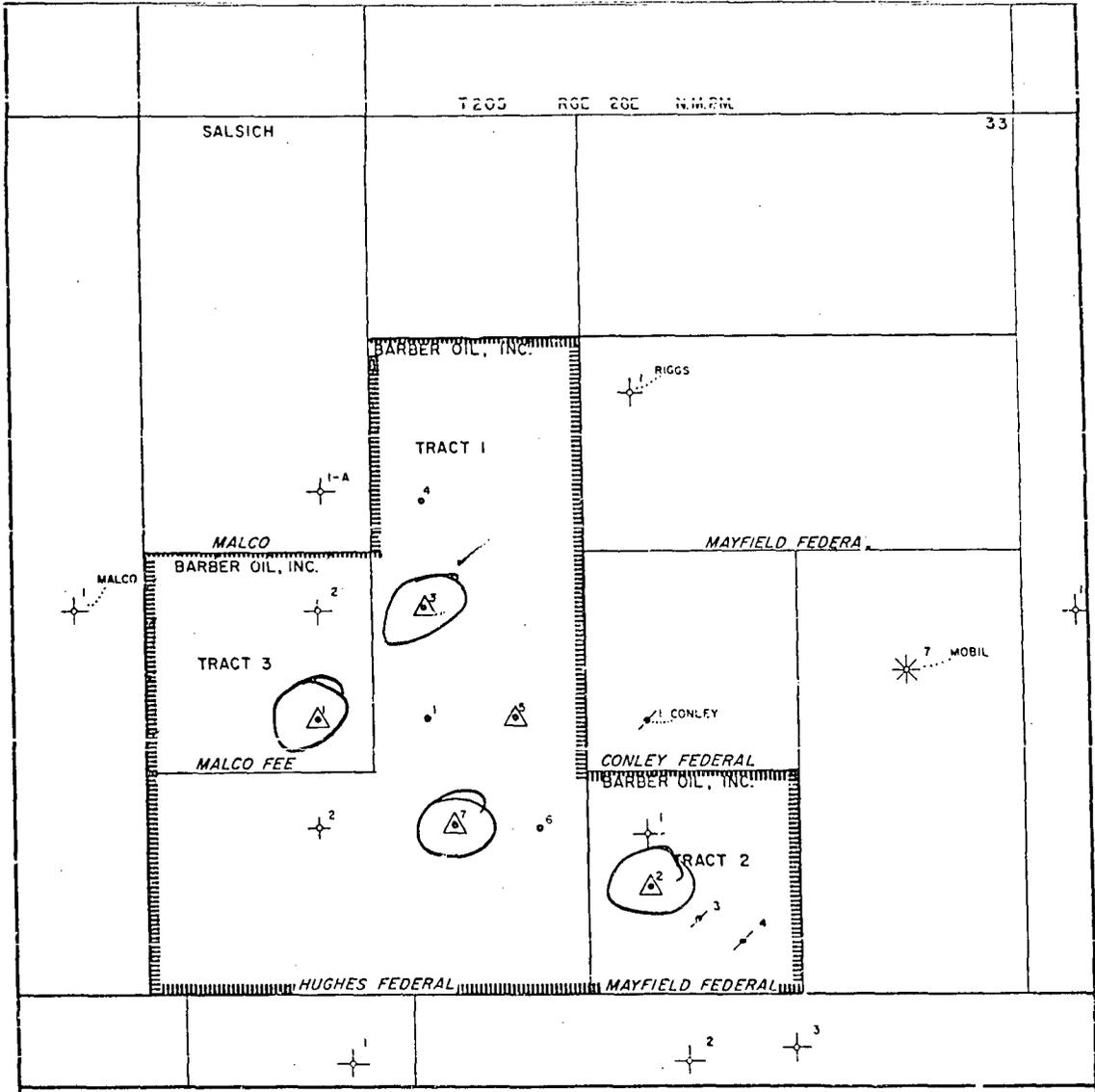


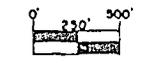


Case 6226



- LEGEND—
- PRODUCING WELL
  - ⚡ PLUGGED AND ABANDONED WELL
  - ✦ DRY HOLE
  - ✧ GAS WELL
  - ◻ FEDERAL
  - ▨ FEE
  - △ WATER INJECTION WELL
  - PROPOSED LOCATION

BARBER OIL, INC.  
 SALADAR—YATES FIELD  
 EDDY COUNTY, NEW MEXICO



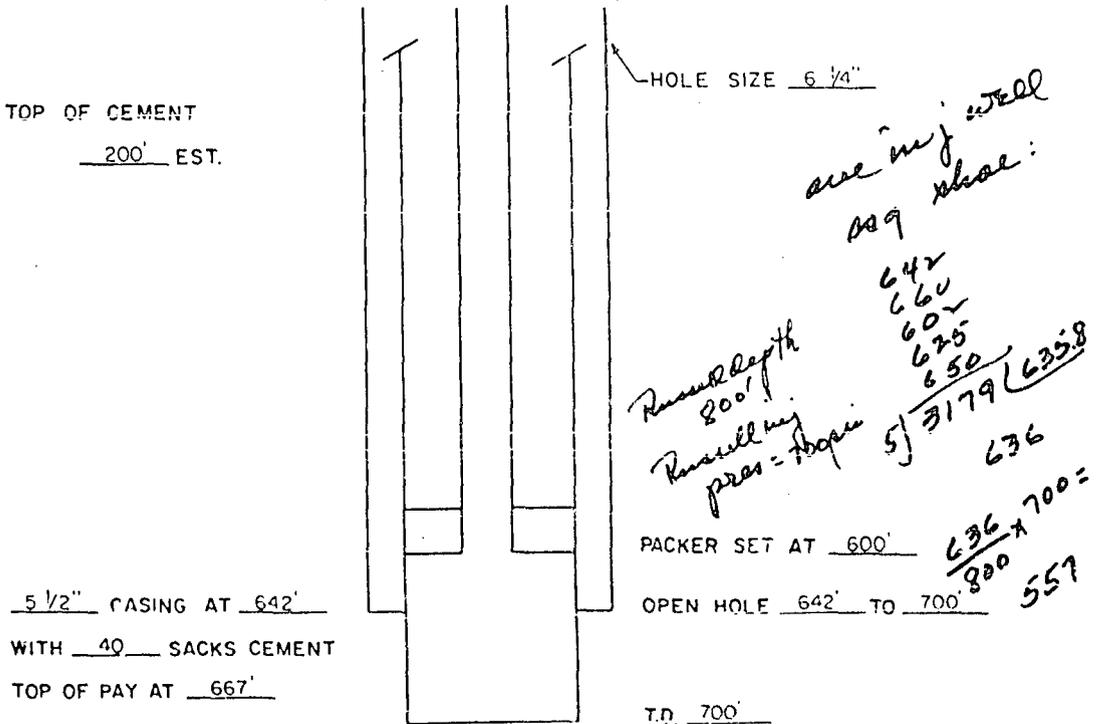
Ex 2  
 04 6226



Case 6226

BARBER OIL, INC.  
SALADAR UNIT  
SALADAR FIELD  
EDDY COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH  
PROPOSED WATER INJECTION WELL  
WELL NO. 1-3



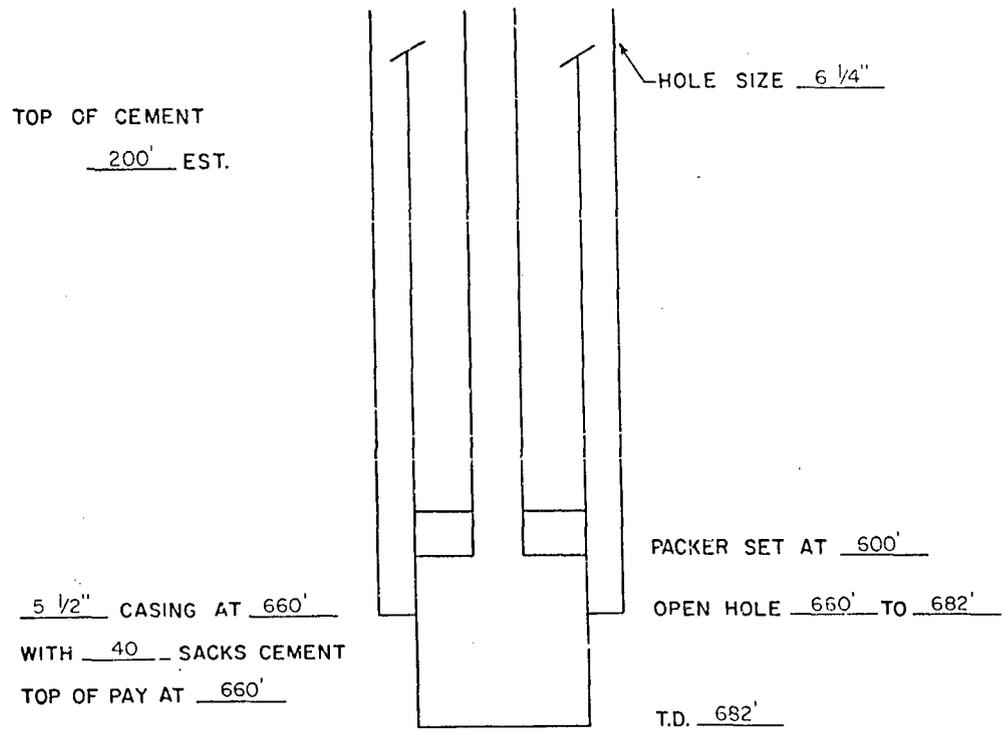
OTHER WELL DATA:

COMPLETION DATE: 8-27-56  
ELEVATION: 3201'  
TREATMENT: FRACED WITH 15000"  
ORIGINAL OWNER, LEASE & WELL NO.: GEORGE BIGGS ET AL  
HUGHES (FEDERAL) LEASE, WELL NO 3  
INITIAL POTENTIAL: 44 BOPD

Case 2226

BARBER OIL, INC.  
SALADAR UNIT  
SALADAR FIELD  
EDDY COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH  
PROPOSED WATER INJECTION WELL  
WELL NO. 1-5



OTHER WELL DATA:

COMPLETION DATE: 9-1-62

ELEVATION: 3199'

TREATMENT: FRACED WITH 10,600<sup>##</sup>

ORIGINAL OWNER, LEASE & WELL NO.: GEORGE RIGGS ET AL,

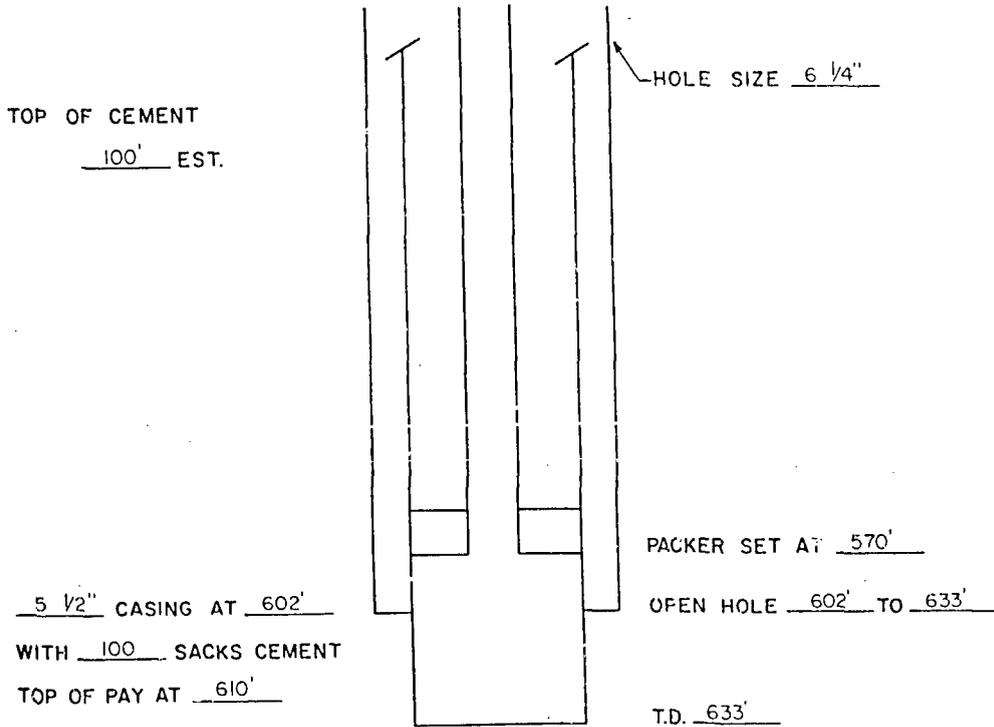
HUGHES (FEDERAL) LEASE, WELL NO. 5

INITIAL POTENTIAL: 18 BOPD & 4 BWPD

Case 6226

BARBER OIL, INC.  
SALADAR UNIT  
SALADAR FIELD  
EDDY COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH  
PROPOSED WATER INJECTION WELL  
WELL NO. 1-7



OTHER WELL DATA:

COMPLETION DATE: 12-29-65

ELEVATION: 3199'

TREATMENT: FRACED WITH 11,000<sup>##</sup>

ORIGINAL OWNER, LEASE & WELL NO.: GEORGE RIGGS ET AL,

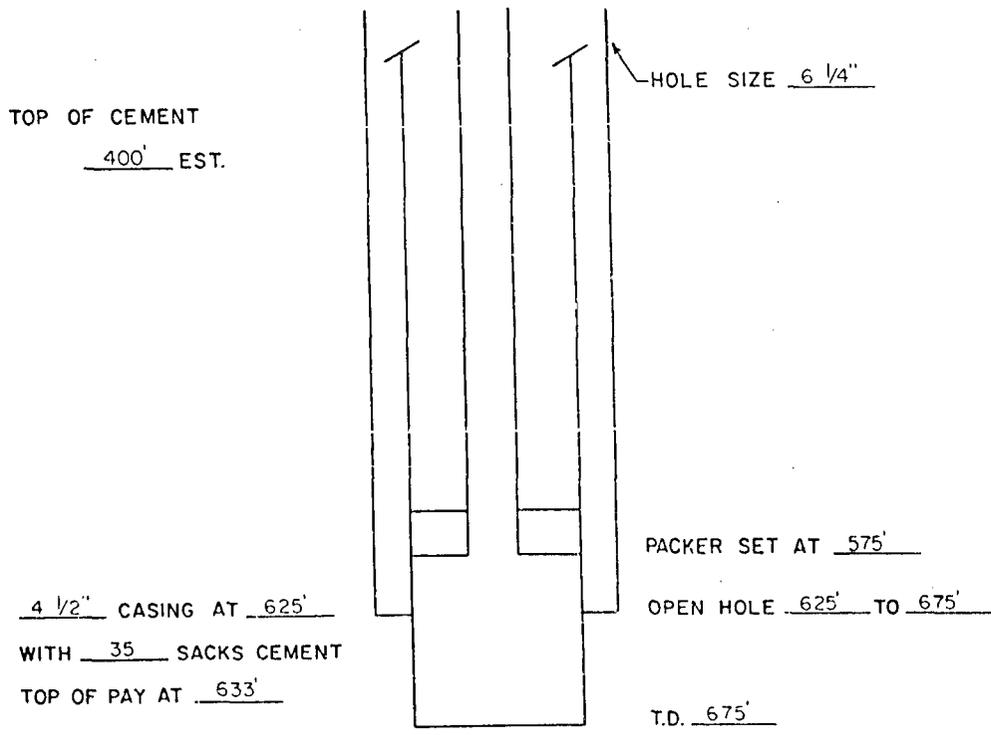
HUGHES (FEDERAL) LEASE, WELL NO. 7

INITIAL POTENTIAL: 5 BOPD

Case 6226

BARBER OIL, INC.  
SALADAR UNIT  
SALADAR FIELD  
EDDY COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH  
PROPOSED WATER INJECTION WELL  
WELL NO. 2-2



OTHER WELL DATA:

COMPLETION DATE: 10-24-57

ELEVATION: 3205'

TREATMENT: FRACED WITH 10,000\*

ORIGINAL OWNER, LEASE & WELL NO.: GEORGE E CONLEY,

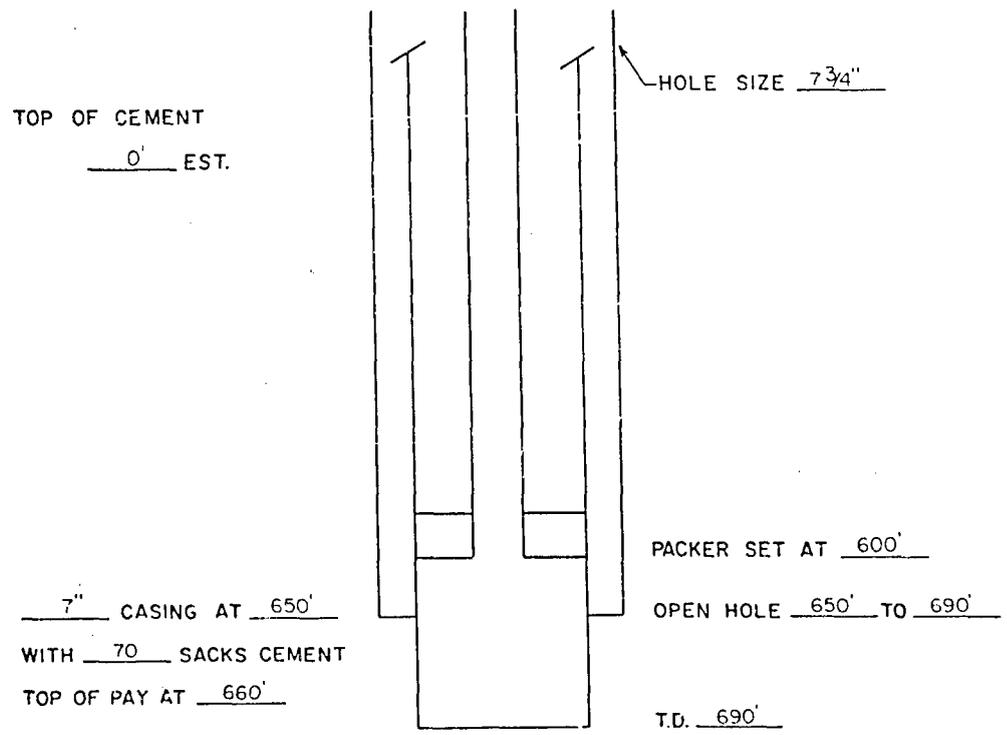
MAYFIELD FEDERAL LEASE, WELL NO 2

INITIAL POTENTIAL: 4 BOPD

Case 6226

BARBER OIL, INC.  
SALADAR UNIT  
SALADAR FIELD  
EDDY COUNTY, NEW MEXICO

DIAGRAMMATIC SKETCH  
PROPOSED WATER INJECTION WELL  
WELL NO. 3-1



OTHER WELL DATA:  
 COMPLETION DATE: 3-30-56  
 ELEVATION: 3202'  
 TREATMENT: SHOT 56 QTS 657'-685'  
 ORIGINAL OWNER, LEASE & WELL NO.: GEORGE RIGGS ET AL,  
MALCO-KEYSTONE FEE LEASE, WELL NO 1  
 INITIAL POTENTIAL: 10 BOPD

Case 6226

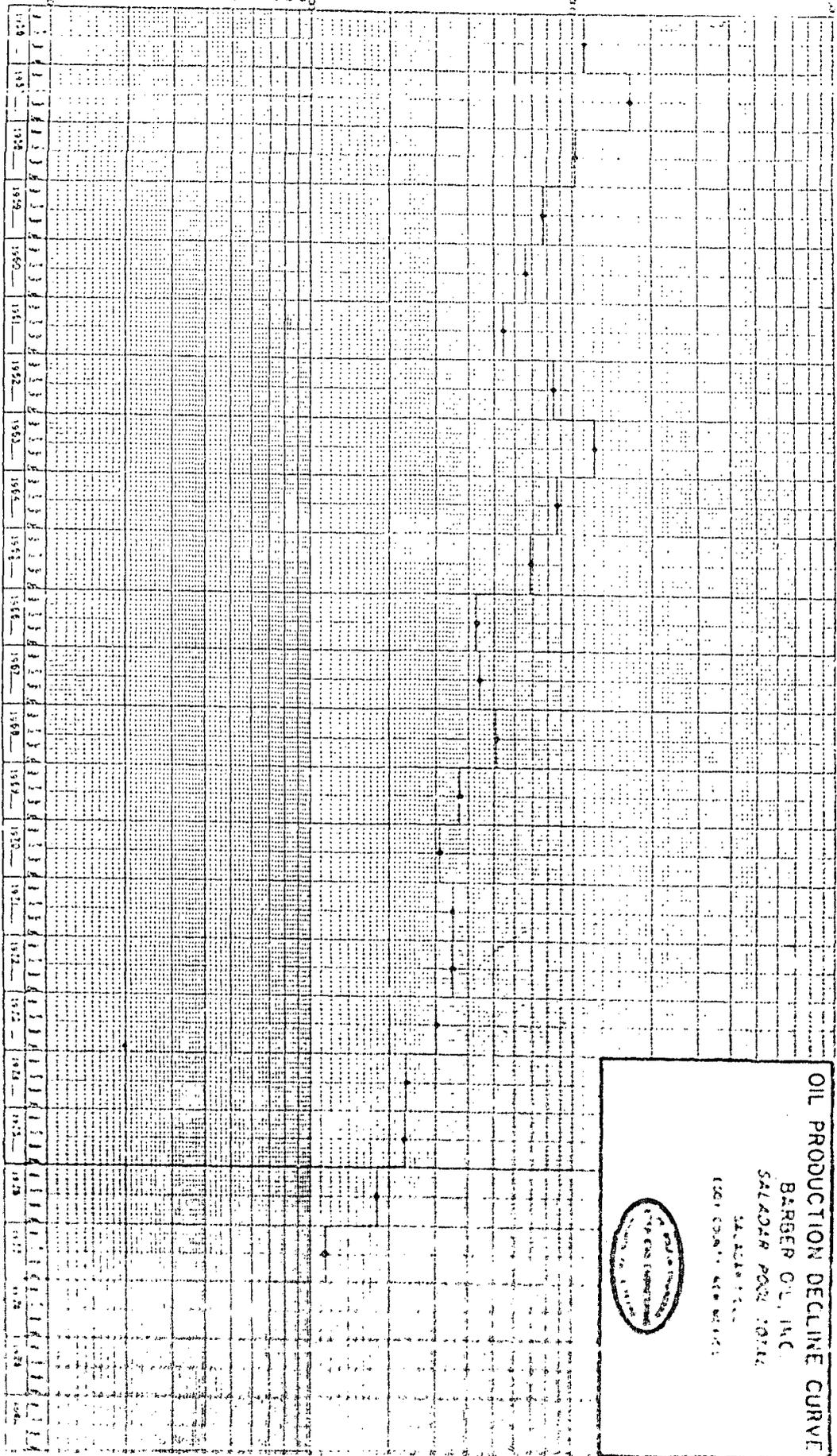
BARBER OIL, INC.  
SALADAR FIELD  
EDDY COUNTY, NEW MEXICO

PIPELINE RUN SUMMARY

<u>Year</u>	<u>Hughes Federal</u>	<u>Malco Fee</u>	<u>Mayfield Federal</u>	<u>Field Total</u>
1956	4,257	3,426	0	7,683
1957	15,444	4,307	0	19,751
1958	8,567	3,831	0	12,398
1959	6,830	2,393	0	9,223
1960	5,810	2,103	0	7,913
1961	4,494	2,008	0	6,502
1962	7,300	1,665	1,178	10,143
1963	11,749	1,600	1,071	14,420
1964	8,311	1,380	663	10,354
1965	6,364	1,138	806	8,308
1966	3,507	1,025	605	5,137
1967	3,819	951	470	5,240
1968	4,543	1,090	470	6,103
1969	3,121	936	312	4,369
1970	2,476	775	469	3,720
1971	2,646	1,243	311	4,200
1972	3,092	931	154	4,177
1973	2,583	749	312	3,644
1974	2,094	659	0	2,753
1975	1,851	701	173	2,725
1976	1,666	331	164	2,161
1977	989	354	53	1,396
Total	111,513	33,596	7,211	152,320
% of Total	73.209690	22.056198	4.734112	100.000000

Σ 1

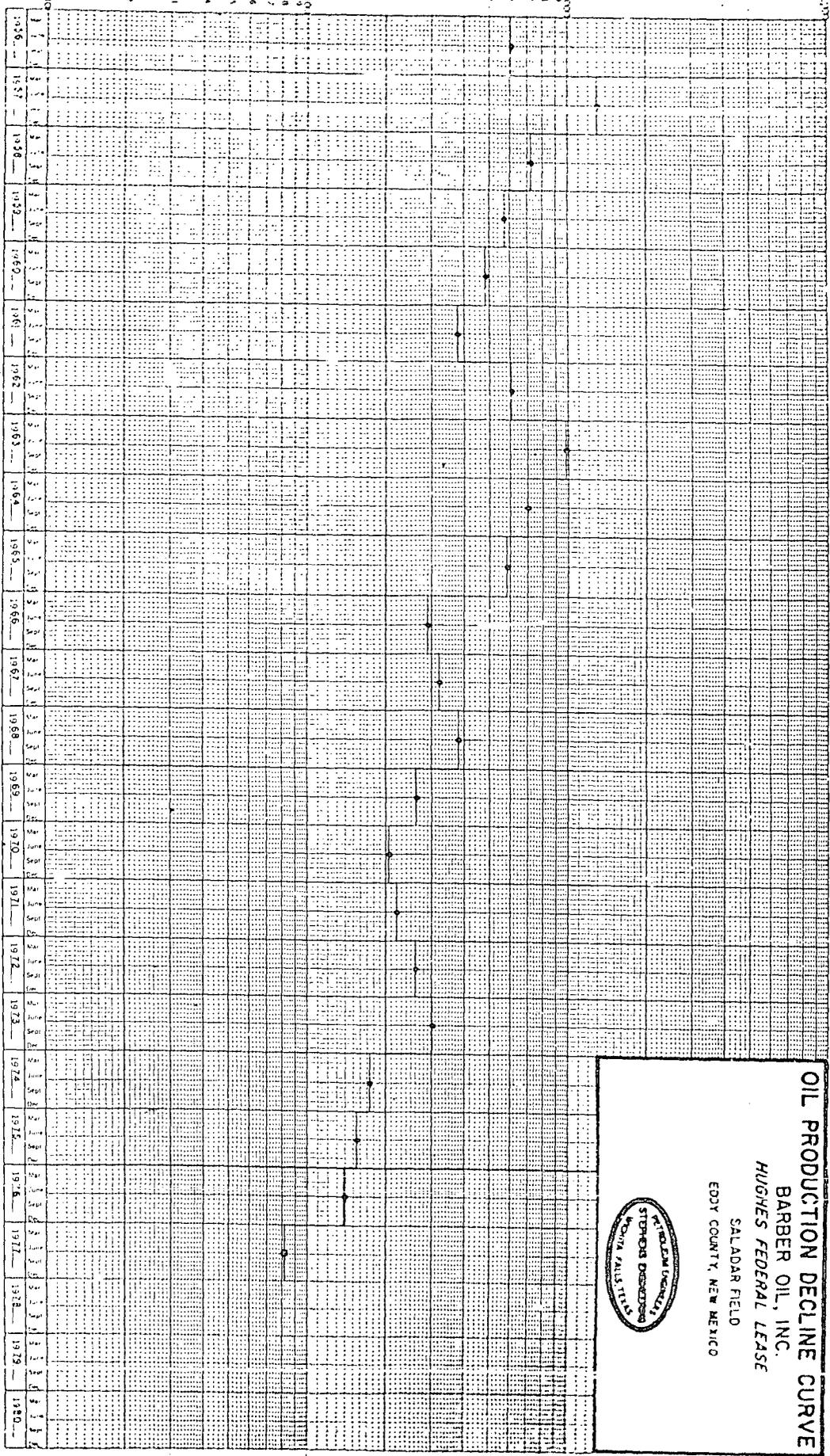
AVERAGE MONTHLY OIL PRODUCTION — BARRELS



**OIL PRODUCTION DECLINE CURVE**  
 BARBER OIL, INC.  
 SALADIN POOL, 10712  
 S. ALLEN ST.  
 EGGI OIL & GAS SERVICE



Case  
6226

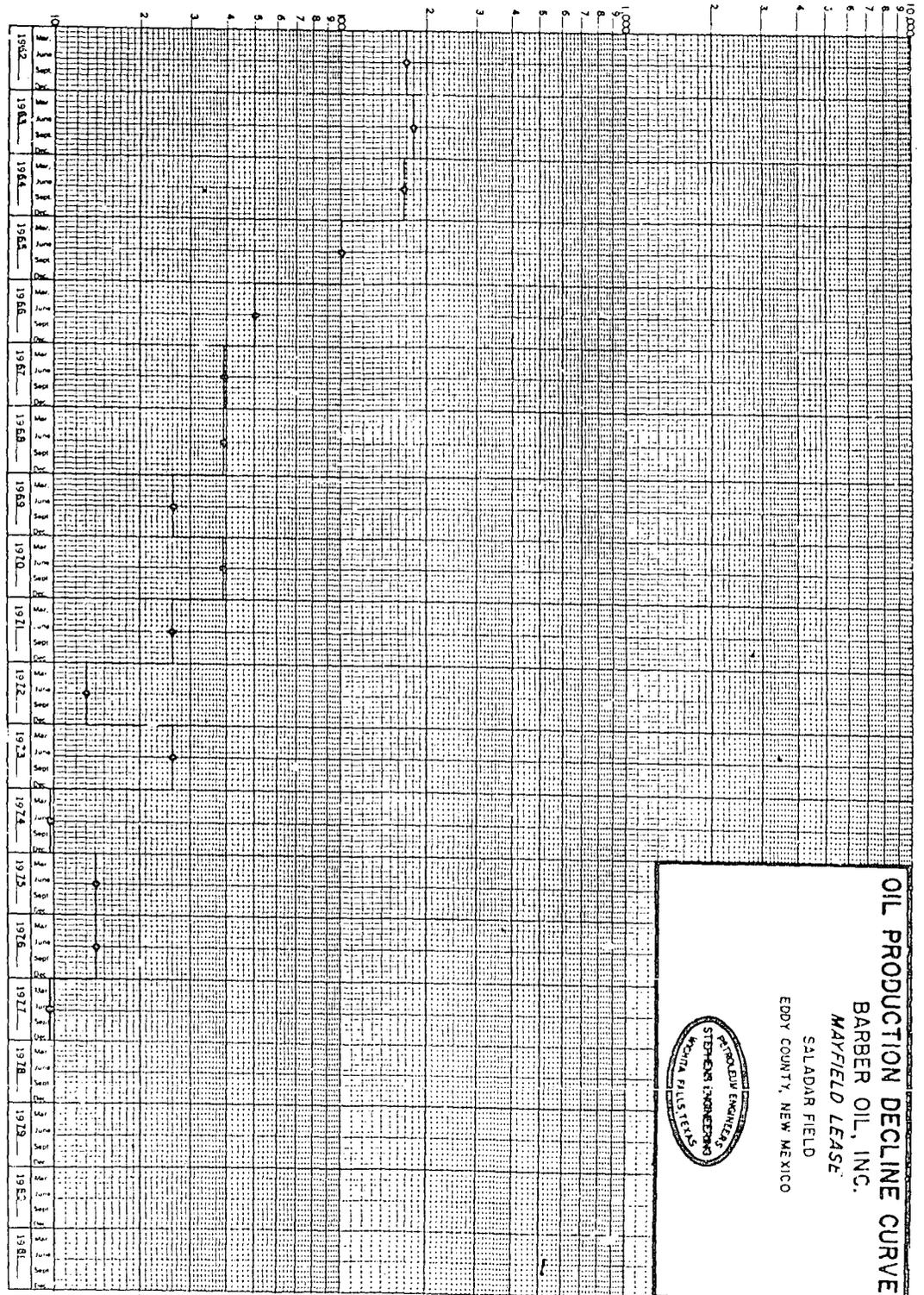


**OIL PRODUCTION DECLINE CURVE**  
 BARBER OIL, INC.  
 HUGHES FEDERAL LEASE  
 SALADAR FIELD  
 EDDY COUNTY, NEW MEXICO

6226

47 0843

### AVERAGE MONTHLY OIL PRODUCTION — BARRELS

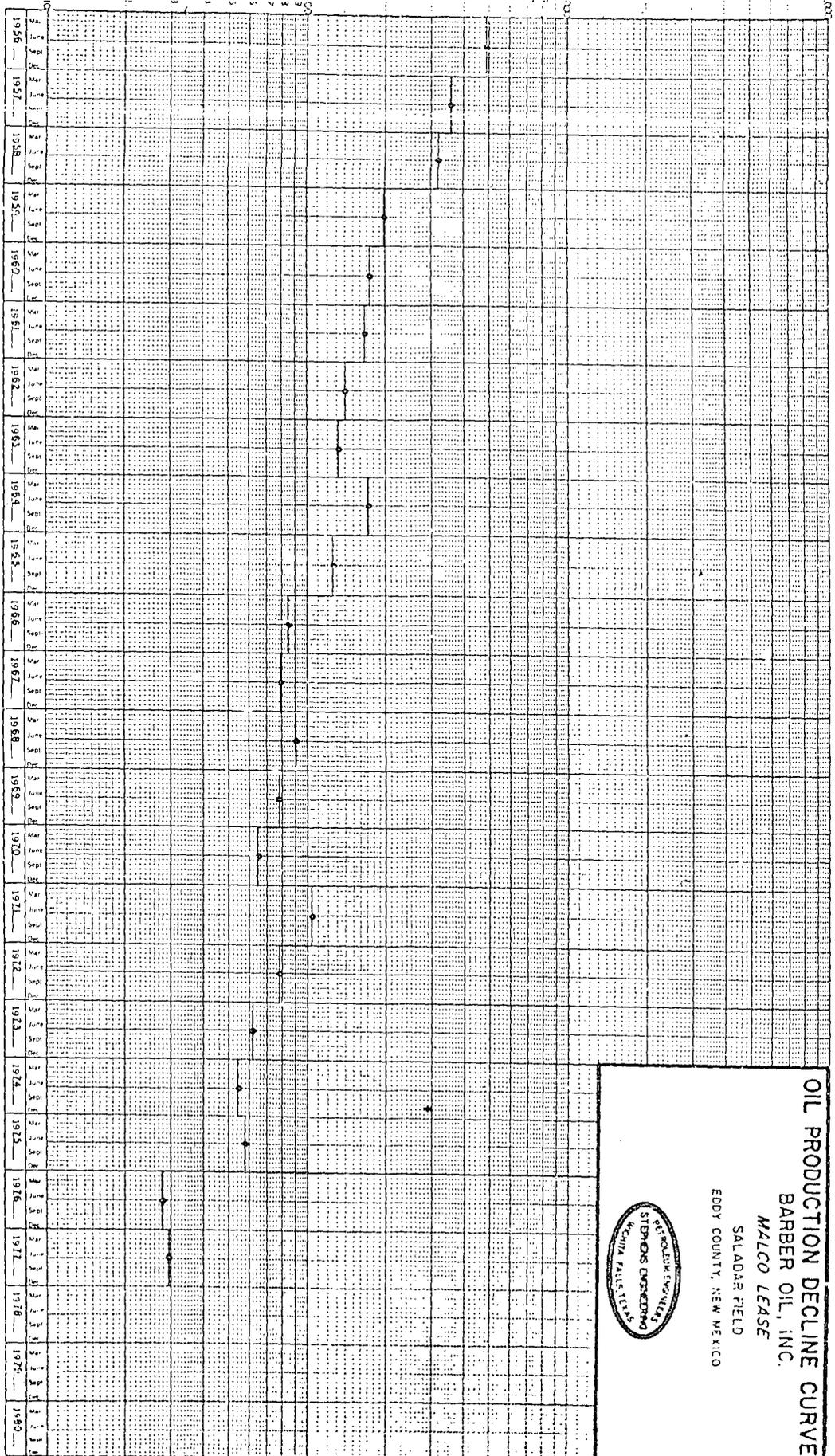


**OIL PRODUCTION DECLINE CURVE**  
 BARBER OIL, INC.  
 MAYFIELD LEASE  
 SALADAR FIELD  
 EDDY COUNTY, NEW MEXICO



AVERAGE MONTHLY OIL PRODUCTION--BARRELS

Curve  
6.2.26



**OIL PRODUCTION DECLINE CURVE**  
 BARBER OIL, INC.  
 MALCO LEASE  
 SALADAR FIELD  
 EDDY COUNTY, NEW MEXICO



UNIT AGREEMENT  
FOR THE DEVELOPMENT AND OPERATION OF THE  
SALADAR UNIT  
EDDY COUNTY, NEW MEXICO

UNIT AGREEMENT  
SALADAR UNIT  
EDDY COUNTY, NEW MEXICO

<u>Article</u>	<u>Index</u>	<u>Page</u>
	Preliminary Recitals .....	1
1	Enabling Act and Regulations .....	2
2	Definitions .....	2
3	Unit Area .....	4
4	Exhibits .....	4
5	Expansion .....	5
6	Unitized Land and Unitized Substances .....	6
7	Unit Operator .....	6
8	Resignation or Removal of Unit Operator .....	7
9	Successor Unit Operator .....	8
10	Accounting Provisions and Unit Operating Agreement .....	9
11	Rights and Obligations of Unit Operator .....	9
12	Plan of Operations .....	10
13	Tract Participations .....	11
14	Tracts Qualified for Unit Participation .....	11
15	Allocation of Unitized Substances .....	13
16	Royalty Settlement .....	16
17	Rental Settlement .....	17
18	Conservation .....	18
19	Drainage .....	18
20	Leases and Contracts Conformed and Extended .....	18
21	Correction of Errors .....	20
22	Covenants Run With Land .....	20
23	Effective Date and Term .....	20
24	Rate of Prospecting, Development and Production .....	22
25	Nondiscrimination .....	23
26	Appearances .....	23
27	Notices .....	23
28	No Waiver of Certain Rights .....	24
29	Equipment and Facilities Not Fixtures Attached to Realty .....	24
30	Unavoidable Delay .....	24
31	Loss of Title .....	25
32	Border Agreements .....	25
33	Nonjoinder and Subsequent Joinder .....	26
34	No Partnership .....	26
35	Oil in Lease Tankage on Effective Date .....	27
36	Personal Property Excepted .....	27
37	Taxes .....	28
38	Joinder in Dual Capacity .....	28
39	Counterparts .....	28
	Exhibit "A" (Map of Unit Area)	
	Exhibit "B" (Schedule of Ownership)	
	Exhibit "C" (Schedule of Tract Participation)	
	Exhibit "D" (Section 202 of Executive Order 11246)	

UNIT AGREEMENT  
FOR THE DEVELOPMENT AND OPERATION OF THE  
SALADAR UNIT  
EDDY COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the 1st day of May, 1978, 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:

WHEREAS, The parties hereto are the owners of Working, Royalty, or other Oil and Gas Interests in the Unit Area subject to this Agreement; and

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

WHEREAS, The Oil Conservation Commission of the State of New Mexico is authorized by law (Chap. 72, Laws of 1935, as amended by Chap. 193, Laws of 1937, Chap. 166, Laws of 1941, and Chap. 168, Laws of 1949) to approve this Agreement, and the conservation provisions hereof; and

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

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

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

## ARTICLE 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 privately owned 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 of New Mexico are hereby accepted and made a part of this Agreement.

## ARTICLE 2

### DEFINITIONS

For the purpose of this Agreement, the following terms and expressions as used herein shall mean:

2.1 Commission is defined as the Oil Conservation Commission of the State of New Mexico.

2.2 Director is defined as the Director of the United States Geological Survey.

2.3 Secretary is defined as the Secretary of the Interior of the United States of America, or his duly authorized delegate.

2.4 Department is defined as the Department of the Interior of the United States of America.

2.5 Supervisor is defined as the Oil and Gas Supervisor of the United States Geological Survey, for the Area in which the Unit Area is situated.

2.6 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.

2.7 Unitized Formation is defined as that portion of the Yates Formation commonly known as the Yates sand. This unitized interval is found between 641 feet and 614 feet on the well logs dated June 20, 1956 of the George Kings et al. Hayes Federal No. 1 well which is located 1660 feet from the south line and 1193 feet from the west line of Section 33, Township 20 South, Range 28 East, Tully County, New Mexico.

2.8 Unitized Substrate is defined as that oil, gas, gas hydrates, and other substances contained in and beneath the Unitized Formation and constituent liquid or gaseous hydrocarbons which are produced from the Unitized Formation of the Yates sand.

2.9 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.

2.10 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 and other than an Overriding Royalty Interest.

2.11 Working Interest Owner is defined as a party hereof who owns a Working Interest.

2.12 Royalty Owner is defined as a party hereto who owns a Royalty Interest.

2.13 Tract is defined as each parcel of land described as such and given a Tract number in Exhibit "B".

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

2.15 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.

2.16 Oil and Gas Rights is defined as the right to explore, develop, and operate land within the Unit Area for the production of Unitized Substances, or to share in the production so obtained or the proceeds thereof.

2.17 Unit Operator is defined as the party designated by Working Interest Owners under the Unit Operating Agreement to develop and operate the Unitized Formation.

2.18 Record Owner is defined as the holder of the record title to a lease covering Federal lands according to the applicable records of the Department of the Interior of the United States of America.

2.19 Tract Cumulative Oil Recovery is defined as the total number of barrels of oil produced from the Unitized Formation under such Tract prior to January 1, 1978, as officially reported to the Commission.

2.20 Unit Area Cumulative Oil Recovery is defined as the total Tract Cumulative Oil Recovery of all Tracts within the Unit Area that are committed to this agreement in accordance with the provisions hereof.

2.21 Unit Operating Agreement is defined as any agreement or agreements (whether one or more) entered into (separately or collectively) by and between the Unit Operator and the Working Interest Owners as provided in Article 10, infra, and shall be styled "Unit Operating Agreement Saladar Unit, Eddy County, New Mexico".

2.22 Unit Operations is defined as any operation conducted pursuant to this Agreement and the Unit Operating Agreement.

2.23 Unit Equipment is defined as all personal property, lease and well equipment, plants, and other facilities and equipment taken over or otherwise acquired for the joint account for use in Unit Operations.

2.24 Unit Expense is defined as all cost, expense, or indebtedness incurred pursuant to this Agreement and the Unit Operating Agreement for or on account of Unit Operations.

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

2.26 Unit Manager is defined as any person or corporation appointed by Working Interest Owners to perform the duties of Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Section 8 hereof.

2.27 Outside Substances is defined as any substance obtained from any source other than the Unitized Formation and injected into the Unitized Formation.

### ARTICLE 3

#### UNIT AREA

The following described land is hereby designated and recognized as constituting the Unit Area:

Township 20 South, Range 28 East, New Mexico Principal Meridian

SECTION 33: NW 1/4 SW 1/4, NE 1/4 SW 1/4, SE 1/4 NW 1/4, S 1/2 SW 1/4 and SW 1/4 SE 1/4.

Containing 240 acres, more or less, in Eddy County, New Mexico.

### ARTICLE 4

#### EXHIBITS

4.1 Exhibits. Attached hereto are the following exhibits which are incorporated herein by reference:

4.1.1 Exhibit "A", is a map showing, to the extent known to the Unit Operator, the Unit Area and the boundaries and identity of Tracts and leases in said Unit Area.

4.1.2 Exhibit "B", is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each Tract and the percentage of ownership of each Working Interest Owner and each Royalty Owner in each Tract.

4.1.3 Exhibit "C", is a schedule showing the percentage of participation each Tract has in the Unit Area.

4.1.4 Exhibit "D", is the provisions of paragraphs 1 through 7 of Section 202 of Executive Order 11246 as amended.

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

4.3 Exhibits Considered Correct. An exhibit shall be considered to be correct until revised as herein provided.

4.4 Filing Revised Exhibits. Exhibits "A", "B" and "C" shall be revised by the Unit Operator whenever changes render such revision necessary, and not less than four copies thereof shall be filed with the Supervisor.

#### ARTICLE 5

#### EXPANSION

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

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

(b) After preliminary concurrence by the Director and the Commission, Unit Operator shall circulate a notice to each Working Interest Owner of the proposed expansion, setting out the basis for admission, the Unit Participation to be assigned to such Tract or Tracts, and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise) if ninety per cent (90%) of the Working Interest Owners (on the basis of Unit Participation) have agreed to such Tract or Tracts being brought into the Unit, then Unit Operator shall:

(1) Prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit, the reason therefor, the basis for admission of the additional Tract or Tracts, the Unit Participation to be assigned thereto and the proposed effective date thereof preferably the first day of a month subsequent to the date of notice; and

(2) Deliver copies of said notice to the Director, the Commission and each Working Interest Owner (mailing copy of such notice to the last known address of each such 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 objection to such proposed expansion; and

(3) File, upon expiration of said thirty (30) day period as set out in (2) immediately above and provided that objections of not more than ten per cent (10%) of the Working Interest Owners have been filed thereto, with the Supervisor and the Commission the following: (a) Comprehensive statement as to mailing such notice of expansion; (b) An Application for such expansion; (c) An instrument containing the appropriate joinders in compliance with the participation requirements of Article 14, infra, and (d) a copy of all objections received along with the Operator's response thereto.

The expansion shall, after due consideration of all pertinent information and upon approval by the Supervisor and the Commission, become effective as of the date prescribed in the notice thereof or on such other date as set by the Supervisor and the Commission in the order or instrument approving such expansion.

#### ARTICLE 6

##### UNITIZED LAND AND UNITIZED SUBSTANCES

All land committed to this Agreement as to the Yates Sand as defined under Unitized Formation, shall constitute land referred to herein as "Unitized Land" or "Land subject to this Agreement". All oil and gas in or produced from said Unitized Formation of the "Unitized Land" are unitized under the terms of this Agreement and herein are called "Unitized Substances". Surface rights of ingress and egress shall be maintained for the benefit of the Unit.

Nothing herein shall be construed to unite, pool, or in any way affect the oil, gas and other minerals contained in or that may be produced from any formation other than the Unitized Formation as defined in Article 2.8 of this Agreement.

#### ARTICLE 7

##### UNIT OPERATOR

Barber Oil, Inc. is hereby designated as Unit Operator, and by signing this instrument as Unit Operator he 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 when such interests are owned by it 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.

#### ARTICLE 8

##### RESIGNATION OR REMOVAL OF UNIT OPERATOR

Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners, the Supervisor and the Commission, 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 or removal of Unit Operator shall not release Unit Operator from any liability for any default by it hereunder occurring prior to the effective date of its resignation or removal.

The Unit Operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by the owner of seventy-five per cent (75%) of the committed Working Interests (on the basis of Unit Participation) exclusive of the Working Interest Owner who is the Unit Operator. Such removal shall be effective upon notice thereof to the Director, and the Commission.

In all 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 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 Utilized Substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all wells, equipment, books, records, materials, appurtenances and any other assets, used in conducting the Unit Operations and owned by the Working Interest Owners (including 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 Unit Manager 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. Nothing herein contained shall be construed to relieve or discharge any Unit Operator or Unit Manager who resigns or is removed hereunder from any liability or duties accruing or performable by it prior to the effective date of such resignation or removal.

#### ARTICLE 9

##### SUCCESSOR UNIT OPERATOR

Whenever the Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, or a change of Unit Operator is negotiated by Working Interest Owners, the Working Interest Owners shall by affirmative vote of at least seventy-five per cent (75%) of their voting interest, based upon the percentages of participation as shown on Exhibit "C", select a successor Unit Operator, provided, however, that should any Working Interest Owner own a voting interest of more than twenty-five per cent (25%), the vote of said party shall not serve to disapprove the selection of a new Unit Operator approved by eighty per cent (80%) or more of the voting interests of the remaining Working Interest Owners, and provided further that the Unit Operator shall not vote to succeed itself. 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) written notice of such selection shall have been filed with and approved by the

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

#### ARTICLE 10

##### ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT

Costs and expenses incurred by Unit Operator in conducting Unit Operations hereunder shall be paid, apportioned among and borne by the Working Interest Owners in accordance with the Unit Operating Agreement. Such Unit Operating Agreement shall also provide the manner in which the Working Interest Owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases or other 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 Unit Agreement, and in case of any inconsistency or conflict between the Unit Agreement and the Unit Operating Agreement, this Unit Agreement shall prevail. Two true copies of any Unit Operating Agreement executed pursuant to this Article shall be filed with the Supervisor and two true copies thereof shall be filed with the Commission, prior to approval of this Agreement, and thereafter promptly after any revision or amendment.

#### ARTICLE 11

##### 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 by Unit Operator, 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 and possession and use vested in the parties hereto only for the purposes herein specified.

#### ARTICLE 12

##### PLAN OF OPERATIONS

It is recognized and agreed by the parties hereto that all of the land subject to this Agreement is reasonably proved to be productive of Unitized Substances and that the object and purpose of this Agreement is to formulate and to put into effect a secondary recovery project in order to effect additional recovery of Unitized Substances, prevent waste and conserve natural resources. The parties hereto agree that the Unit Operator may, subject to the consent and approval of a plan of operation by the Working Interest Owners, the Supervisor, and the Commission, inject into the Unitized Formation, through any well or wells completed therein, brine, water, air, gas, oil, liquefied petroleum gas, and any other substance or a combination of any of said substances, whether produced from the Unit Area 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. After commencement of secondary operations, Unit Operator shall furnish the Supervisor and the Commission monthly, injection and production reports for each well in the Unit. The Working Interest Owners, the Supervisor, and the Commission, shall be furnished periodical reports on the progress of the plan of operation and any revisions or changes thereto; 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 Supervisor, and the Commission.

The initial plan of operation shall be filed with the Supervisor and the Commission concurrently with the filing of this Unit Agreement for final approval. Said initial plan of operation and all revisions thereof shall be as complete and adequate as the Supervisor and the

Notwithstanding to the extent that the provisions of this Agreement shall be amended, modified or supplemented by any subsequent agreement or resolution, the provisions of this Agreement shall remain in full force and effect.

#### ARTICLE 13

##### TRACT PARTICIPATION

Exhibit "C" attached hereto shows the participation allocated to each Tract in the Unit Area based on a presumed 100% commitment. The formula used for the calculations of such percentages is as follows:

$$100\% \times (\text{times}) \frac{\text{Tract Cumulative Oil Recovery}}{\text{Unit Area Cumulative Oil Recovery}}$$

If this Unit Agreement is approved with less than 100% Tract Commitment, the percentages of participation shall be revised in accordance with the provisions of Article 14 of this Agreement.

#### ARTICLE 14

##### TRACTS QUALIFIED FOR UNIT PARTICIPATION

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 Unit Agreement unless the tract involved is qualified under this section.

On and after the effective date hereof the Tracts within the Unit Area which shall be entitled to participation (as provided in Article 13 hereof) in the production of Unitized Substances therefrom shall be those Tracts within the Unit Area that are qualified as follows:

(a) Each and all of those Tracts as to which Working Interest Owners owning one hundred per cent (100%) of the Working Interest in said Tract execute this agreement and the Unit Operating Agreement and Royalty Owners owning one hundred per cent (100%) of the Royalty Interest in said Tract have subscribed, ratified or consented to this Agreement; and

(b) Each and all of those Tracts in which the owners of not less than ninety-five per cent (95%) of the Working Interest therein execute this Agreement and the Unit Operating Agreement and the owners of not less than seventy-five per cent (75%) of the Royalty Interest therein

have executed this Agreement, and in which the Working Interest Owners in said Tract who have executed this Agreement and the Unit Operating Agreement have agreed to indemnify and hold harmless all other parties hereto, in a manner satisfactory to the owners of eighty-five per cent (85%) of the Working Interests qualified under Subarticle 14(a), against any and all claims and demands that may be made by the nonjoining Working Interest Owners or Royalty Owners, or both, on account of the commitment and joinder of such Tract to the Unit Agreement, and operation thereof under such conditions on the basis herein provided, and as to which the owners of eighty-five per cent (85%) of the Working Interests qualified under Subarticle 14(a), exclusive of the Working Interest Owner submitting such Tract, have approved the commitment of such Tract to this Unit Agreement.

(c) Each Tract as to which Working Interest Owners owning less than 100% of the Working Interest therein have executed this Agreement and the Unit Operating Agreement, 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 all of the other Working Interest Owners in such Tract who have executed this Agreement and the Unit Operating Agreement have joined in a request for qualification of such Tract for Unit Participation 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 qualification of such Tract for Unit Participation, and

(ii) The owners of eighty per cent (80%) of the committed Working Interest in all Tracts meeting the requirements of Subarticles 14(a) and 14(b) have voted in favor of the qualification of such Tract and acceptance of the indemnity agreement.

Upon the qualification of such a Tract for Unit Participation, 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.

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

#### ARTICLE 15

##### ALLOCATION OF UNITIZED SUBSTANCES

All Unitized Substances produced and saved (less, save and except any part of such Unitized Substances used in conformity with good operating practices on Unitized Land for drilling, operating, camp, and other production or development purposes and for pressure maintenance or unavoidable loss) shall be apportioned among and allocated to the committed Tracts within the Unit Area in accordance with the respective Tract Participation then effective hereunder during the

respective periods such Unitized Substances were produced, as set forth in the schedule of participation in Exhibit "C". The amount of Unitized Substances so allocated to each Tract, and only that amount, (regardless of whether it be more or less than the amount of the actual production of Unitized Substances from the well or wells, if any, on such Tract) shall, for all intents, uses and purposes, be deemed to have been produced from such Tract.

The Unitized Substances allocated to each Tract shall be distributed among, or accounted for to the parties executing, consenting to or ratifying this Agreement entitled to share in the production from such Tract in the same manner, in the same proportions, and upon the same conditions, as they would have participated and shared in the production from such Tracts, or in the proceeds thereof, had this Agreement not been entered into; and with the same legal force and effect.

No Tract committed to this Agreement and qualified for participation as above provided shall be subsequently excluded from participation hereunder on account of depletion of Unitized Substances, and nothing herein contained shall be construed as requiring any retroactive adjustment for production obtained prior to the effective date of the joinder and qualification of any Tract.

If any Working Interest or Royalty Interest in a Tract hereafter become divided and owned in severalty as to different parts of the Tract, the owners of the divided interests, in the absence of an agreement providing for a different division, shall share in the Unitized Substances allocated to the Tract, or in the proceeds thereof, in proportion to the surface acreage of their respective parts of the Tract.

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 Unitized Land, provided the same are so constructed, maintained and operated as not to interfere with operations carried on pursuant hereto. Subject to Article 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 responsible for the payment of such expense. In the event any party hereto shall fail to take or otherwise adequately dispose of its proportionate share of the production from the Unit Area currently as and when produced, then so long as such conditions continue, Unit Operator, for the account and at the expense of such party and in order to avoid curtailing the operation of the Unit Area, may buy, sell or otherwise dispose of such production to itself or others on a day-to-day basis at not less than the prevailing market price in the area for like production, and the account of such party shall be charged therewith as having received such production. The net proceeds, if any, of the Unitized Substances so disposed of by Unit Operator shall be paid to the Working Interest Owner for payment to the parties entitled thereto under existing contracts.

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 if the same is sold or purchased by Unit Operator, shall be responsible for the payment of all Royalty on the lease or leases and Tracts contributed by it and received into the Unit, and each such party shall hold each other party hereto harmless against all claims, demands and causes of action for such Royalty on the lease or leases and Tracts contributed by it and received into the Unitized Land.

If, after the effective date of this Agreement, there is any Tract or Tracts that are subsequently committed hereto, as provided in Article 5 (Expansion) hereof, or any Tract or Tracts within the Unit Area not committed hereto as of the effective date hereof but which are subsequently committed hereto under the provisions of Article 33 (Nonjoinder and Subsequent Joinder), and Article 14 (Tracts Qualified for Unit

Participation), or if any Tract is excluded from the Unit Area as provided for in Article 31 (Loss of Title), the schedule of participation as shown in Exhibit "C" shall be revised by the Unit Operator and distributed to the Working Interest Owners, the Supervisor and the Commission to show the new percentages of participation of all the then effectively committed Tracts, in any such revision pursuant to this paragraph the Tract Participations of the Tracts committed prior to the revision shall remain in the same ratio one to the other and the revised schedules, upon approval by the Supervisor and the Commission, shall govern all the allocation of production from and after the effective date thereof until a new schedule is so approved.

#### ARTICLE 16

##### ROYALTY SETTLEMENT

The United States of America and all Royalty Owners who, under an existing contract, are entitled to take in kind a share of the substances produced from any Tract unitized hereunder, shall continue to be entitled to such right to take in kind their share of the Unitized Substances allocated to such Tract, and Unit Operator shall make deliveries of such Royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for Royalty Interest 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 Unit Agreement.

If gas obtained from lands not subject to this Agreement is introduced into the Unitized Formation, for use in repressuring, stimulation of production or increasing ultimate recovery in conformity with a plan approved pursuant to Article 12 (Plan of Operations), a like amount of gas, less appropriate deductions for loss 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 such withdrawal shall be pursuant to such conditions and formulas as may be prescribed or approved by the Supervisor and the Commission; and provided further that such right of withdrawal shall terminate as of the effective date of termination of this Agreement.

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

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

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

#### ARTICLE 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 the payment of any rental or minimum royalty in lieu thereof due under their leases. Rental or minimum royalty for

lands of the United States of America subject to this Agreement shall be paid at the rate specified in the respective leases from the United States of America, unless rental or minimum royalty is waived, suspended, or reduced by law or by approval of the Secretary of his duly authorized representative.

ARTICLE 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 or pursuant to Federal and State laws and regulations.

ARTICLE 19

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.

ARTICLE 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 Secretary shall and by his approval hereof, or by the approval hereof by his duly authorized representative, do hereby establish, alter, change or revoke the drilling, producing, rental, minimum royalty and royalty requirements of Federal leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement.

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

(a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every part of separately owned Tract committed to this Agreement, regardless of whether there is any development of any particular part or Tract of the Unitized Land, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling, producing or secondary recovery 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 Lands pursuant to direction or consent of the Secretary and the Commission or their duly authorized representative, 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 so long as such land remains committed hereto.

(e) The segregation of any Federal lease committed to this Agreement is governed by the following provisions in the fourth paragraph of Sec. 17(j) of said Act of February 25, 1920, as amended by the Act of September 2, 1960 (74 Stat. 781-784): "Any (Federal) lease hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization; Provided, however, that any such lease as to the nonunitized portion shall continue in

force and effect for the term thereof but for not less than two (2) years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

#### ARTICLE 21

##### 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 might 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 the Supervisor, the Commission, and the Working Interest Owners.

#### ARTICLE 22

##### COVENANTS RUN WITH LAND

The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any Working Interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument 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.

#### ARTICLE 23

##### EFFECTIVE DATE AND TERM

This Agreement shall become binding upon each party as of the date such party signs the instrument by which it becomes a party hereto; and, unless sooner terminated as hereinafter provided, shall become

effective as to qualified Tracts after approval by the Secretary of the Interior or his duly authorized representative and the Commission, at the time and date as determined by the Working Interest Owners in all the qualified Tracts; and set forth in a certificate filed for record by Unit Operator in Eddy County, New Mexico. The certificate shall also recite the percentage of the Unit Area represented by the Tracts qualified under Article 14, the book and page in which a counterpart of this Agreement has been recorded, and the case number and order number of the order of approval by Governmental authority, if obtained. The certificate shall not be filed until after the following requirements have been met:

(a) The execution or ratification of this Agreement and the Unit Operating Agreement by Working Interest Owners owning a combined Unit Participation of at least ninety-three percent (93%), and the execution or ratification of this Agreement by Royalty Owners owning a combined interest of at least seventy-five per cent (75%) of the Royalty Interest, in said Unit Area; and

(b) The approval of this Agreement by the Secretary or his duly authorized representative and the Commission.

If this Agreement is not filed for final approval by the Secretary or his duly authorized representative and the Commission on or before January 31, 1979, 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 owning a combined Unit Participation of at least ninety per cent (90%) and the owners of at least sixty-five per cent (65%) of the Working Interests committed to this Agreement have voted to extend said expiration date for a period not to exceed six (6) months (hereinafter called "extended expiration date"). If said expiration date is so extended and this Agreement is not filed for final approval by the Secretary or his duly authorized representative and the Commission on or before said extended expiration date, this Agreement shall ipso facto expire on said extended expiration date and thereafter be of no further force or effect. For the purpose of this Article,

ownership shall be computed on the basis of Unit Participation as determined from Exhibit "C" attached to the Unit Operating Agreement.

Unit Operator shall, within thirty (30) days after the effective date of this Agreement, file for record a certificate to the effect that this Agreement has become effective according to its terms and stating further the effective date and the location of the governmental agency offices where copies of this Agreement are filed.

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

This Agreement may be terminated for any reason with the approval of the Director and the Commission by Working Interest Owners owning seventy-five per cent (75%) Unit Participation. Notice of any such termination shall be given by Unit Operator to all parties thereto.

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 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.

#### ARTICLE 24

##### RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION

All production and the disposal thereof shall be in conformity with allocations and quotas made or fixed by any duly authorized person or regulatory body under any Federal or State statute. The Director is hereby vested with authority to alter or modify from time to time, at his discretion, the rate of prospecting and development and within the limits made or fixed by the Commission to alter or modify the quantity

and rate of production under this Agreement, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification; provided further that no such alteration or modification shall be effective as to any privately owned lands subject to this agreement as to the quantity and rate of production in the absence of specific written approval thereof by the Commission.

Powers in this Article vested in the Director shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen (15) days from notice.

#### ARTICLE 25

##### NONDISCRIMINATION

In connection with the performance of work under this agreement, Unit Operator agrees to comply with all of the provisions of Section 202(1) to (7), inclusive, of Executive Order 11246 (30 F.R. 12319), as amended by Executive Order 11375, dated October 13, 1967.

#### ARTICLE 26

##### APPEARANCES

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

#### ARTICLE 27

##### NOTICES

All notices, demands, objections or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if made in writing and personally delivered to the party or parties or sent by postpaid registered or certified mail, addressed

to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party or parties may have furnished in writing to the party sending the notice, demand or statement.

#### ARTICLE 28

##### NO WAIVER OF CERTAIN RIGHTS

Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the United States or 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.

#### ARTICLE 29

##### EQUIPMENT AND FACILITIES NOT FIXTURES ATTACHED TO REALTY

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

#### ARTICLE 30

##### 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, uncontrolled 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.

#### ARTICLE 31

##### LOSS OF TITLE

In the event title to any Tract of Unitized Land shall fail so as to render the Tract inoperable under this Agreement and the true owner cannot be induced to join this Agreement, such Tract shall be automatically regarded as not committed hereto and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title as to any Royalty, Working Interest or other interest subject thereto, payment or delivery on account thereof may be withheld without liability or interest until the dispute is finally settled; provided, that as to State or Federal land or leases, no payments of funds due the 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.

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

#### ARTICLE 32

##### BORDER AGREEMENTS

Subject to the approval of the Supervisor and the Commission, the Unit Operator, with concurrence of sixty-five per cent (65%) of the Working Interest Owners, based upon the percentages of participation may enter into border protection agreement or agreements with the Working Interest Owners of adjacent lands along the boundaries of the Unit Area with respect to the operations in the border area for the maximum ultimate recovery, conservation purposes and proper protection of the parties and interests.

ARTICLE 33

NONJOINDER AND SUBSEQUENT JOINDER

Any Oil or Gas Interest in the lands in the Unit Area not committed hereto prior to submission of this Agreement to the Director and the Commission for final approval may thereafter be committed hereto upon compliance with the applicable provisions of this Article and of Article 14 (Tracts Qualified for Unit Participation) hereof, at any time up to the effective date hereof.

It is understood and agreed, however, that from and after the effective date hereof, the right of subsequent joinder as provided in this Article, shall be subject to such requirements or approvals and on such basis as may be agreed upon by ninety per cent (90%) of the Working Interest Owners (based upon the percentages of participation) and the Supervisor. Such joinder by a proposed Working Interest Owner must be evidenced by his execution or ratification of this Agreement and the Unit Operating Agreement. Such joinder by a proposed Royalty Owner must be evidenced by his execution, ratification or consent of this Agreement and must be consented to in writing by the Working Interest Owner responsible for the payment of any benefits that may accrue hereunder in behalf of such proposed Royalty Owner. Except as may be otherwise herein provided, subsequent joinder to this Agreement shall be effective as of the first day of the month following the filing with the Supervisor and the Commission of duly executed counterparts of any and all documents necessary to establish effective commitment of any Tract or interest to this Agreement, unless objection to such joinder by the Director or the Commission is duly made within sixty (60) days after such filing.

ARTICLE 34

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, or any operations conducted hereunder, shall create or be deemed to create a partnership or association between the parties hereto or any of them.

ARTICLE 35

OIL IN LEASE TANKS ON EFFECTIVE DATE

Unit Operator shall make a proper and timely gauge of all lease and other tanks within the Unitized Area in order to ascertain the amount of merchantable oil in such tanks, above the pipe line connections, as of 7:00 a.m. on the effective date hereof. All such oil as is a part of the prior allowable of the well or wells from which the same was produced shall be and remain the property of the Interest Owners entitled thereto the same as if the Unit had not been formed, and the responsible Working Interest Owners shall promptly remove said oil from the Unitized Area. Any such oil not so removed may be sold by the Unit Operator for the account of such Working Interest Owners, subject to the payment of all Royalty to Royalty Owners under the terms and provisions of the applicable lease or leases and other contracts. All such oil and gas 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 overproduced 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.

ARTICLE 36

PERSONAL PROPERTY EXCEPTED

All lease and well equipment, materials, and other facilities heretofore or hereafter placed by any of the Working Interest Owners on the land subject to this Agreement shall be deemed to be and shall remain personal property belonging to and may be removed by the Working Interest Owners. The rights and interests therein as among Working Interest Owners are covered by the Unit Operating Agreement.

ARTICLE 37

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 such taxes shall be charged to the United States nor to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

ARTICLE 38

JOINDER IN DUAL CAPACITY

Execution as herein provided by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests owned or controlled by such party; provided, however, that if the party is the owner of a Working Interest, he must also execute the Unit Operating Agreement.

ARTICLE 39

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.

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

ATTEST:

BARBER OIL, INC.  
Unit Operator

By *Anna W. Light*  
Anna W. Light, Secretary  
Date 7-28-78

By *Robert S. Light*  
Robert S. Light, President

Date 5/12/78

*Thomas F. Stephens*  
Thomas F. Stephens

Date 5/12/78

*Jane Stephens*  
Jane Stephens

Date 5-11-78

*Joe L. Johnson, Jr.*  
Joe L. Johnson, Jr.

Date 5/11/78

*Nan H. Johnson*  
Nan H. Johnson

Date 6/23/78

*E. P. Russell*  
E. P. Russell

Date 6/23/78

*Josephine W. Russell*  
Josephine W. Russell

Date 6-19-78

*J. W. Morgan*  
J. W. Morgan

Date 6-20-78

*Myra S. Morgan*  
Myra S. Morgan

Date 6-19-78

*Dudley J. Hughes*  
Dudley J. Hughes

Date 6-20-78

*Robbie W. Hughes*  
Robbie W. Hughes

Date 6-19-78

*Dan A. Hughes*  
Dan A. Hughes

Date 6-19-78

*Juanita W. Hughes*  
Juanita W. Hughes

STATE OF NEW MEXICO

COUNTY OF EDDY

The foregoing instrument was acknowledged before me this 21<sup>st</sup> day of July, 1978, by Robert S. Light, President of Barber Oil, Inc., a ~~Tex~~ Mexico corporation, on behalf of said corporation.

My Commission Expires:

April 1, 1981

Jane E. Montgomery  
Notary Public

STATE OF TEXAS

COUNTY OF WICHITA

The foregoing instrument was acknowledged before me this 12<sup>th</sup> day of May, 1978, by Thomas F. Stephens and Jane Stephens, his wife.

My Commission Expires:

May 31, 1979

Barbara Walker  
Notary Public BARBARA WALKER

STATE OF TEXAS

COUNTY OF WICHITA

The foregoing instrument was acknowledged before me this 11<sup>th</sup> day of May, 1978, by Joe L. Johnson, Jr. and Nan H. Johnson, his wife.

My Commission Expires:

May 31, 1979

Barbara Walker  
Notary Public BARBARA WALKER

STATE OF MISSISSIPPI

COUNTY OF JONES

The foregoing instrument was acknowledged before me this 23 day of June, 1978, by E. P. Russell and Josephone N. Russell, his wife.

My Commission Expires:

January 30, 1979

Joyce G. Torris  
Notary Public  
JOYCE G. TORRIS

STATE OF MISSISSIPPI

COUNTY OF JONES

The foregoing instrument was acknowledged before me this 20 day of June, 1978, by J. A. Morgan and Myra S. Morgan, his wife.

My Commission Expires:

My Commission Expires November 26, 1979

Essie M. Reid  
Notary Public  
Essie M. Reid

STATE OF MISSISSIPPI

COUNTY OF ~~RANKIN~~ Hinds

The foregoing instrument was acknowledged before me this 20<sup>th</sup> day of June, 1978, by Dudley J. Hughes and Robbie W. Hughes, his wife.

My Commission Expires:

July 29, 1981

Ruth Wallace  
Notary Public  
Ruth Wallace

STATE OF TEXAS

COUNTY OF BEE

The foregoing instrument was acknowledged before me this 19<sup>th</sup> day of June, 1978, by Dan A. Hughes and Juanita W. Hughes, his wife.

My Commission Expires:

9-20-78

Ronald P. Stasny  
Notary Public  
RONALD P. STASNY

TOWNSHIP 20 SOUTH RANGE 28 EAST N.M.P.M.

33

SALSICH

BARBER OIL, INC.

TRACT 1

HIGGS

MALCO  
BARBER OIL, INC.  
TRACT 3  
MALCO FEE

MAYFIELD FEDERAL

MOBIL

CONLEY  
CONLEY FEDERAL  
BARBER OIL, INC.

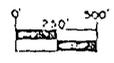
TRACT 2

HUGHES FEDERAL

MAYFIELD FEDERAL

- LEGEND—
- PRODUCING WELL
- ⌵ PLUGGED AND ABANDONED WELL
- + DRY HOLE
- \* GAS WELL
- ▭ FEDERAL
- ▨ FEE

EXHIBIT "A"



BARBER OIL, INC.  
SALADAR—YATES FIELD  
EDDY COUNTY, NEW MEXICO



EXHIBIT "B"  
TO  
UNIT AGREEMENT  
SALADAR UNIT  
EDDY COUNTY, NEW MEXICO

Schedule of Acreage by Tracts  
and  
Percentage of Ownership

EXHIBIT "B"  
TO UNIT AGREEMENT  
SALADAR UNIT  
EDDY COUNTY, NEW MEXICO

Tract Description of Land	Serial No. & Date of Lease	Lessee of Record	Basic Royalty Ownership and Percentage	Overriding Royalty Owner and Percentage	Working Interest Ownership and Percentage	Unit Participation
1 Federal Land T-20-3, R-28-E, Sec. 33; SW/4 SE/4, SE/4 SW/4, and S/2 SW/4 (Hatch's Federal) 167 acres	WW-05277 12-1-52	Don A. Hughes	U.S.G.S. 12.5%	George D. Riggs 6.25%*	Dan A. Hughes 19.44% Ludley J. Hughes 6.33% J. A. Moran 13.61% E. P. Russell 8.33% Joe L. Johnson, Jr. 12.50% Thomas F. Stephens 12.50% Barber Oil, Inc. 25.00%	71.47362%
2 T-20-3, R-28-E, Sec. 33; SW/4 SE/4 (Mayfield Federal) 40 acres	LC-06225H-A 5-1-52	W. A. Sudderth assigned to T. M. Mayfield	U.S.G.S. 12.5% El Paso Hall, Bk. 1.0625% P. T. Mayfield 1.0625%	J. L. Dunigan 1%	Dan A. Hughes 20.83% Ludley J. Hughes 12.50% J. A. Moran 8.33% E. P. Russell 8.33% Joe L. Johnson, Jr. 12.50% Thomas F. Stephens 12.50% Barber Oil, Inc. 25.00%	6.60253%

\* Percentage increases from 5% when Unit production exceeds 15 BOPD.

Total: 2 Federal Tracts - 200 Acres - 78.376401% of Unit Area

EXHIBIT "B"  
TO UNIT AGREEMENT  
SALADAR UNIT  
EDDY COUNTY, NEW MEXICO

Tract No.	Description of Land Acres	Serial No. & Date of Lease	Lessee of Record	Basic Royalty Ownership and Percentages		Overriding Royalty Owner and Percentage		Working Interest Ownership and Percentage		Unit Participation
				Owner	Percentage	Owner	Percentage	Owner	Percentage	
3	Ex. Land T-20-1, R-22-E, Sec. 33; 57 1/2 SW/4 (Sale) 40 acres	7-15-54	Malco Ref. Inc.	L. Davis Sabine Prod. Singer Bros. E. Davis	3.125% 3.125% 3.125% 3.125%	Hondo Oil	6.25%	Dan A. Hughes Dudley J. Hughes J. A. Moran E. P. Russell Joe L. Johnson, Jr. Thomas F. Stockens Barber Oil, Inc.	29.634% 12.567% 8.333% 8.333% 12.567% 12.567% 25.603%	21.72359%

Total: 1 Per Tract - 40 Acres - 21.72359% of Unit Area

EXHIBIT "C"  
TO  
UNIT AGREEMENT  
SALADAR UNIT  
EDDY COUNTY, NEW MEXICO

Schedule of Tract Participation

<u>Tract No.</u>	<u>Participation Percentage</u>
1	71.473862
2	6.802539
3	21.723599
Total	100.000000

EXHIBIT "D"  
TO UNIT AGREEMENT  
SALADAR UNIT  
EDDY COUNTY, NEW MEXICO

PROVISIONS OF SECTION 202 OF  
EXECUTIVE ORDER 11246

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

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

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

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

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

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

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

Contractor shall also abide by the regulations of Executive Order 11598, Occupational Safety and Health Act and by Executive Order 11540, Veterans Hire Regulation, which orders are inserted herein by reference.

RECEIVED

Case 6226

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE

Form Approved  
Budget Bureau No. 42-3165-6

APR 5 1965 U. S. GEOLOGICAL SURVEY

(See other instructions on reverse side)

3. LEASE DESIGNATION AND SERIAL NO.  
Federal No. C6277

ARTESIAN WELL COMPLETION OR RECOMPLETION REPORT AND LOG

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

1a. TYPE OF WELL: OIL WELL  GAS WELL  HOT  OTHER

7. UNIT ABBREVIATION NAME

b. TYPE OF COMPLETION:  
REG. WELL  WORK OVER  DESP. IN  PLEG. BACK  DIFF. EXHA.  APR 6 1965

8. FARM OR LEASE NAME  
Hughes-Federal

2. NAME OF OPERATOR  
Geo. D. Riggs ✓ G. D. R.

9. WELL NO.  
7

2. ADDRESS OF OPERATOR  
Box 116 Carlsbad, New Mexico 88220

10. FINDER AND POOL, OR WILDCAT  
Saladar-intos

6. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)  
At surface 970 feet from south line, 1203 feet from west line

11. SEC. T., R., N., OR BLOCK AND SURVEY OR AREA  
Sec. 33 202-283

At top prod. interval reported below 8600

N.M.P.M.

At total depth 8608

14. PERMIT NO. DATE ISSUED

12. COUNTY OR STATE  
SUNNY N.M.

10. DATE RECORDED 10-21-64 15. DATE T.D. REACHED 11-20-64 17. DATE COMPL. (Ready to prod.) 3-29-65 18. ELEVATION (DP, R.M., RT, OR ETC.) 3197.1 (still, grid + 87) 19. RELY. CABINGHEAD 3197.3

20. TOTAL DEPTH, MD & TVD 633 1.5 & TVD 31. PLOG. BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY? 23. INTERVALS DRILLED BY ROTARY TOOLS 0 to 633 CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)  
Yates Sand 610 to 612 and 620 to 625 TVD 25. WAS DIRECTIONAL SURVEY MADE NO

26. TYPE ELECTRIC AND OTHER LOGS RUN 27. WAS WELL CORED NO

24. CARING RECORD (Report all strings set in well)

CARING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT FILLED
7 1/2	17	424	8 1/2	mudded	424
5 1/2	14	602		100-uncks	NO LOG

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2"	630	

31. PERFORATION RECORD (Interval, size and number) none

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
633 - 635	fracture with 275 bbl of long oil and 11000 lbs of 20-40 sand by EXMILL

33. PRODUCTION

DATE FIRST PRODUCTION 3-29-65 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) pumping, common working bbl. 2" WELL STATUS (Producing or shut-in) producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PRDN. FOR TEST PERIOD	OIL—BBL.	GAS—MCF	WATER—BBL.	GAS-OIL RATIO
3-31-65	24			5	scur	none	

FLOW, TUBING PRESS. CASING PRESSURE CALCULATED 24-HOUR RATE OIL—BBL. 5 GAS—MCF. WATER—BBL. none OIL GRAVITY-API (CORR.) 36

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) USED to run pumping engine TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED [Signature] TITLE operator DATE 4-3-65

\*(See Instructions and Spaces for Additional Data on Reverse Side)

## INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on Items 22 and 24, and 33, below regarding separate reports for separate completions. If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see Item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in Item 22, and in Item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in Item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29: "Socks Cement":** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for Items 22 and 24 above.)

**37. SUMMARY OF POROUS ZONES:**  
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES  
DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP		DESCRIPTION, CONTENTS, ETC.
	TOP	BOTTOM	
	0	85	surface sand, clay etc
	85	200	red beds and sand
	200	424	EVP, red beds salty at 391 to 420
	424	436	hard anhydrite
	436	424	lime and anhydrite
	424	494	lime and shale breaks
	494	552	lime and anhydrite, few shale breaks
	552	583	brown lime, some anhydrite
	583	603	sand and anhydrite
	603	633	sand, fine, gray T.D.
			Gil shows 610 to 612 620 to 625

**38. GEOLOGIC MARKERS**

NAME	TOP	
	NEAR. DEPTH	TRUE VERT. DEPTH
Fletcher	424	5820
Tansill	436	"
Cocotillo	424	"
Yates	583	"

See 6226

Cue  
6226

Carlsbad, New Mexico  
29 Sept. 1975

New Mexico Oil Conservation Commission  
P.O. Box 2088  
Santa Fe, New Mexico 87501

Application is hereby made for the original authority to inject water into the Yates sand formation of the Saladar-Yates field for the purpose of secondary recovery of oil.

Enclosed are:

- 1 A plat showing the location of the proposed injection wells and other wells in the field. There<sup>are</sup> no other wells in the 2 mile radius area which produce from the Yates sand.
- 2 Sample logs of two of the proposed injection wells.
- 3 A diagram to show the relation of casing, tubing, packer and the injection zone.
- 4 The injection zone is a sand in the Yates formation at a depth of about 650 feet. The fluid to be injected will be water from a lease water well which is 55 feet deep.

Geo. D. Riggs Operator  
P.O. Box 116  
Carlsbad, NM 88220

*Geo. D. Riggs*

Case  
6426

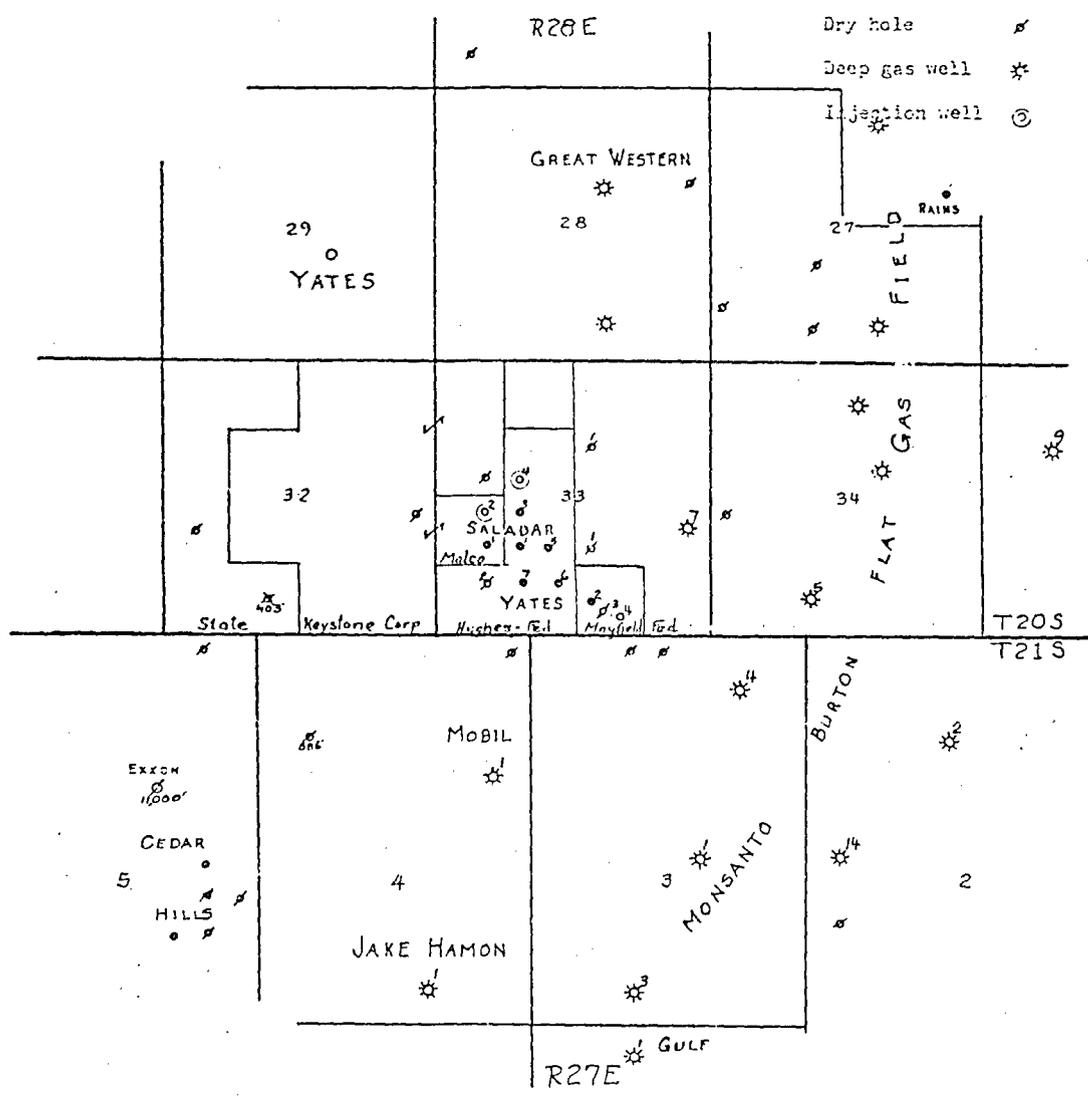
### SALADAR - YATES FIELD

Sec 33 T20S R28E

Eddy County NM

Scale 2" = 1 mile

- Oil well ○
- Dry hole ✕
- Deep gas well \* (with star)
- Injection well ⊙



Case  
6226

Docket No. 29-75

Dockets Nos. 29-75 and 30-75 are tentatively set for hearing on November 19 and December 3, 1975. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 5, 1975

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM,  
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner or Daniel S. Mutter, Alternate Examiner:

CASE 5533: (Continued from September 24, 1975 Examiner Hearing)

Application of Southern Union Production Company for compulsory pooling, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Ellenburger formation underlying the N/2 of Section 21, Township 12 South, Range 26 East, Chaves County, New Mexico, to be dedicated to a well to be drilled at an orthodox location in Unit 7 of said Section 21. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof, as well as actual operating costs and charges for supervision. Also to be considered will be the designation of the applicant as the operator of the well and a charge for the risk involved in drilling said well.

CASE 5566: (Continued from October 8, 1975 Examiner Hearing)

Application of Atlantic Richfield Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Vacuum Grayburg-San Andres Pool by injection of water through seven wells on its State "B" and State "C" Leases, six of said wells being converted producers located in Units C, E, I, K, M, and O of Section 32, Township 17 South, Range 34 East, Lea County, New Mexico, and the seventh being a new well drilled at an unorthodox location 250 feet from the South line and 2250 feet from the West line of said Section 32. Applicant further seeks an administrative procedure whereby the project area could be expanded and additional wells at standard and non-standard locations put on injection and production.

CASE 5571: (Continued from October 22, 1975 Examiner Hearing)

Application of George D. Riggs for a waterflood project, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Saladar-Yates Pool by the injection of water through his Hughes-Federal No. 4, Malco Well No. 2, and Mayfield Federal No. 4 Wells located, respectively, in Units F, L, and O of Section 33, Township 20 South, Range 28 East, Eddy County, New Mexico.

Case  
6226

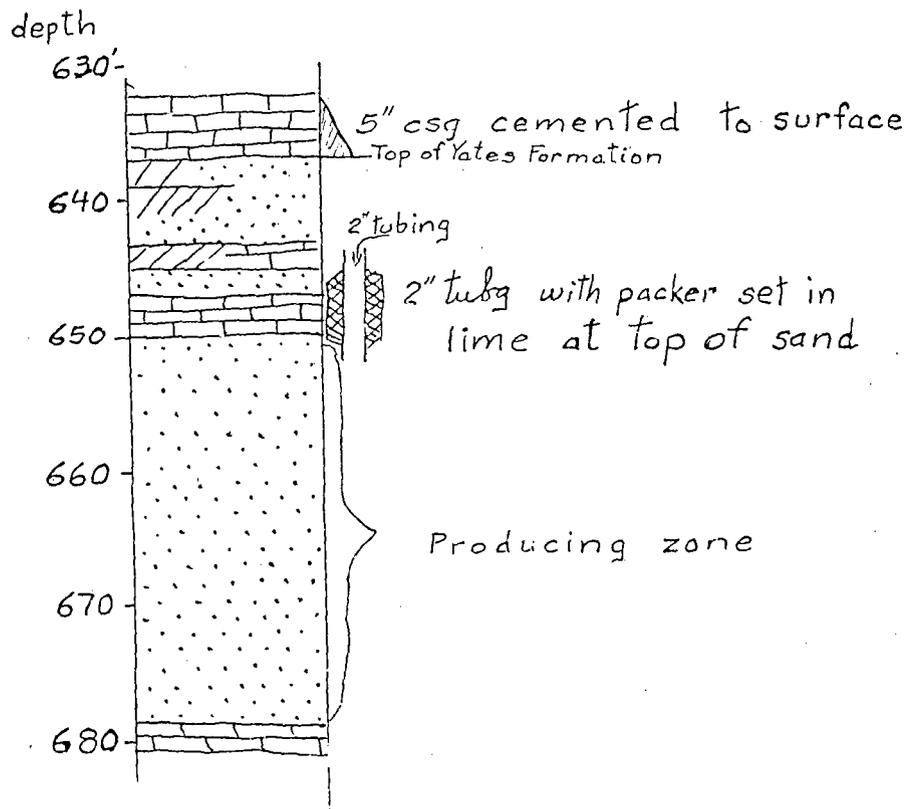
SALADAR - YATES FIELD

Sec 33 T20S R2E3

Eddy County NM

Diagram of:

Casing, tubing &  
producing zone



Case  
6226



United States Department of the Interior

GEOLOGICAL SURVEY

P. O. Drawer U  
Artesia, New Mexico 88210

December 5, 1975

Mr. George D. Riggs  
Post Office Box 115  
Carlsbad, New Mexico 88220

Dear Mr. Riggs:

Your letter of September 29, 1975 requests approval to operate a waterflood of the Yates formation in the Saladar-Yates Field on that portion of Federal oil and gas leases described as follows:

Sec. 33, T. 20 S., R. 28 E., N.M.P.M.,  
Eddy County, New Mexico

NM 08277      SE $\frac{1}{4}$ NW $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ , and S $\frac{1}{2}$ SW $\frac{1}{4}$   
LC 062254-A    SW $\frac{1}{4}$ SE $\frac{1}{4}$

The flood pattern would be non-symmetrical and the plan proposes to convert to water injection wells No. 4 Hughes located 2310/N 1650/W and No. 4 Mayfield located 330/S 1753/E, both in sec. 33 above. This project will be operated in conjunction with the fee lease in the northwest.

The plan for operating the above described waterflood project as proposed in the application is satisfactory to this office and hereby approved subject to approval by the New Mexico Oil Conservation Commission and the following:

1. This project will be operated in compliance with the New Mexico Oil Conservation Commission regulations governing waterflood operations.
2. Prior approval will be obtained for any change or deviation from the original plans or revision thereof.
3. The usual notice and reports of workover, conversions, injection commencement, or suspension, etc. of all wells involved will be timely submitted.

Case  
6226

4. Duplicate copies of a monthly progress report (N.M.O.C.C. form C-120 acceptable) are to be submitted to this office showing the volume of water injected and average pressure for the injection wells and production for the producing wells in the project area.

Sincerely yours,

  
Robert L. Beekman  
Assistant District Engineer

cc:  
Roswell/Attachments

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

Case  
6226

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 5576  
Order No. R-5122

APPLICATION OF GEORGE D. RIGGS  
FOR A WATERFLOOD PROJECT, EDDY  
COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 5, 1975,  
at Santa Fe, New Mexico, before Examiner Richard L. Stanets.

NOW, on this 17th day of November, 1975, the Commission,  
a quorum being present, having considered the testimony, the  
record, and the recommendations of the Examiner, and being  
fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required  
by law, the Commission has jurisdiction of this cause and the  
subject matter thereof.
- (2) That the applicant, George D. Riggs, seeks authority  
to institute a waterflood project on his Hughes Federal, Malco,  
and Mayfield Federal Leases in the Saladar-Yates Pool by the  
injection of water into the Yates formation through his Hughes-  
Federal No. 4, Malco No. 2 and Mayfield-Federal No. 4 wells  
located, respectively, in Units F, L, and O of Section 33,  
Township 20 South, Range 28 East, NMPM, Eddy County, New Mexico.
- (3) That the applicant proposes to inject water into  
said wells by gravity pressure only.
- (4) That the applicant should file an analysis of the  
supply water and a report of water treatment.
- (5) That the wells in the project area are in an advanced  
state of depletion and should properly be classified as "stripper"  
wells.
- (6) That the proposed waterflood project should result  
in the recovery of otherwise unrecoverable oil, thereby  
preventing waste.

(7) That 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 to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(8) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, George D. Riggs, is hereby authorized to institute a waterflood project on his Hughes Federal, Malco, and Mayfield Federal Leases in the Saladar-Yates Pool by the injection of water by gravity pressure only into the Yates formation through the following-described wells in Section 33, Township 20 South, Range 28 East, NMPM, Eddy County, New Mexico:

Hughes-Federal No. 4, Unit F  
Malco No. 2, Unit L  
Mayfield-Federal No. 4, Unit O

(2) That injection into each of said wells shall be through internally coated tubing, set in a packer which shall be located within the casing as near as practicable to the casing shoe; that the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or leak detection device. Internal coating of the tubing shall not be required if the injected fluid is treated on a continuing basis to prevent corrosion.

(3) That the operator shall immediately notify the supervisor of the Commission'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 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.

(4) That the operator shall file with the Supervisor of the Artesia District Office of the Commission within 30 days of the date of initial water injection a report showing analysis of the supply water, a report of water treatment processes or chemicals to be used, and a sketch of the treatment facilities.

(5) That the subject waterflood project is hereby designated the Riggs-Saladar Waterflood Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations.

-3-  
Case No. 5576  
Order No. R-5122

Case  
6226

(6) That monthly progress reports of the waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(7) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

  
PHIL R. LUCERO, Chairman

  
EMERY C. ARNOLD, Member

  
JOE D. RAMEY, Member & Secretary

S E A L

dr/