

CASE 3863: Application of PAN AM.
FOR APPROVAL OF THE NORTH CROW
FLATS UNIT AGREEMENT, EDDY COUNTY.

Case Number

3863

Application
Transcripts.

Small Exhibits

ETC.

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3863

February 2, 1970

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P
Y

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

Re: North Crow Flats Unit
TERMINATION
Eddy County, New Mexico

ATTENTION: Mr. Jack D. Anderson

Gentlemen:

Your request received February 2, 1970, to terminate the North Crow Flats Unit pursuant to Section 20 of the Unit Agreement for the Development and Operation of the North Crow Flats Unit, is hereby approved, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

Enclosed is one approved copy of the termination.

Very truly yours,

Ted Bilberry, Director
Oil and Gas Department

TE/ML/s
encl.

cc: USGS-Roswell, New Mexico
OCC-Santa Fe, New Mexico

State of New Mexico



ALEX J. ARMIJO
COMMISSIONER

Commissioner of Public Lands

February 2, 1970

70 FEB 13 AM 8-16

3863

P. O. Box 1148
SANTA FE, NEW MEXICO

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

Re: North Crow Flats Unit
TERMINATION
Eddy County, New Mexico

ATTENTION: Mr. Jack D. Anderson

Gentlemen:

Your request received February 2, 1970, to terminate the North Crow Flats Unit pursuant to Section 20 of the Unit Agreement for the Development and Operation of the North Crow Flats Unit, is hereby approved, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

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Very truly yours,

Ted Bilberry, Director
Oil and Gas Department

TB/ML/s
encl.

cc: USGS-Roswell, New Mexico
OCC-Santa Fe, New Mexico

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

P. O. BOX 1410

FORT WORTH, TEXAS—76101

February 11, 1970

Re: AFE 43,119
North Crow Flats Unit
Eddy County,
New Mexico

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

Attention: Mr. Daniel Nutter

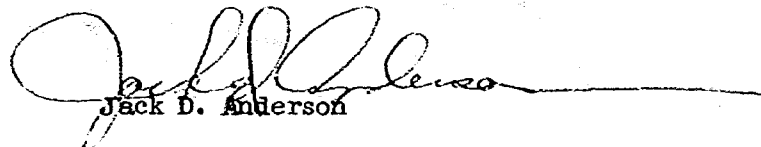
Dear Sir:

In accordance with Section 20 of the North Crow Flats Unit Agreement we enclose one fully executed copy of an instrument entitled, "Termination of Unit Agreement". The instrument has been executed by Pan American Petroleum Corporation whose interest represents more than 75% of the working interest ownership of said unit. We also enclose for your information a Xerox copy of letter dated February 9, 1970, from the USGS approving said termination along with a Xerox copy of letter dated February 2, 1970 from the Commissioner of Public Lands approving said termination.

Please furnish this office with the approval of the termination.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION


Jack D. Anderson

JDA:sh

Attachment



United States Department of the Interior

GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

February 9, 1970

Pan American Petroleum Corp.
P. O. Box 1410
Fort Worth, Texas 76101

Attention: Mr. Jack D. Anderson

Gentlemen:

Termination of the North Crow Flats unit agreement, Eddy County, New Mexico, pursuant to the last paragraph of sec. 20 thereof, was approved effective as of February 28, 1970.

Copies of the termination are being distributed to the Federal agencies concerned and one copy is returned herewith. It is requested that you furnish notice of this approval to each party in interest.

Sincerely yours,

Eddie R. Wyatt

EDDIE R. WYATT
Acting Oil and Gas Supervisor

TERMINATION OF UNIT AGREEMENT FOR THE
DEVELOPMENT AND OPERATION OF THE
NORTH CROW FLATS UNIT AREA
COUNTY OF EDDY, STATE OF NEW MEXICO, AND
APPLICATION FOR APPROVAL THEREOF

The Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, dated September 3, 1968, was approved on November 1, 1968, by the Acting Director of the United States Geological Survey, and on October 31, 1968, by the Commissioner of Public Lands for the State of New Mexico, and under the terms thereof Pan American Petroleum Corporation is designated as the Unit Operator; and,


WHEREAS, the said undersigned party is the owner of more than seventy-five (75) per centum on an acreage basis of the working interest in the North Crow Flats Unit, Eddy County, New Mexico; and

WHEREAS, under the terms of Section 20 of said Unit Agreement, the Unit Agreement may be terminated by not less than seventy-five (75) per centum of the owners of the working interest on an acreage basis upon approval of such termination by the Director of the United States Geological Survey and of the Commissioner of Public Lands for the State of New Mexico.

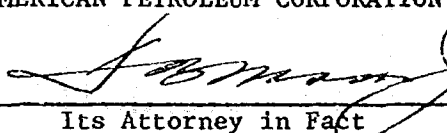
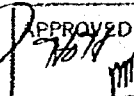
NOW, THEREFORE, the Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico, is hereby terminated as of the date hereof, and the undersigned working interest owner owning not less than seventy-five (75) per centum on an acreage basis of such working interest does hereby request approval of such termination by the Director of the United States Geological Survey and the Commissioner of Public Lands for the State of New Mexico.

IN WITNESS WHEREOF, this instrument is executed as of the 21st day of January, 1970.

ATTEST:


Assistant Secretary

PAN AMERICAN PETROLEUM CORPORATION

By  
Its Attorney in Fact

APPROVED, this _____ day of _____,
1970, effective as of January 21, 1970.

REGIONAL OIL AND GAS SUPERVISOR
UNITED STATES GEOLOGICAL SURVEY

APPROVED, this _____ day of _____,
1970, effective as of January 21, 1970.

ALEX ARMIJO, Commissioner of Public Lands

By _____

THE STATE OF TEXAS

COUNTY OF TARRANT

Y
Y
Y

The foregoing instrument was acknowledged before me this 23rd day
of January, 1970, by D. B. Mason, Jr., as Attorney
in fact on behalf of PAN AMERICAN PETROLEUM CORPORATION.

My Commission expires:

June 1, 1971

Velma B. Craft VELMA B. CRAFT
Notary Public in and for
Tarrant County, Texas

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

P. O. BOX 1410

FORT WORTH, TEXAS—76101

February 11, 1970

Re: AFE 42,958
East Buffalo Valley Unit
Chaves County,
New Mexico

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

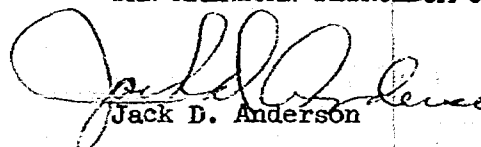
Attention: Mr. Daniel Nutter

Dear Sir:

In accordance with Section 20 of the East Buffalo Valley Unit Agreement we enclose one fully executed copy of an instrument entitled, "Termination of Unit Agreement". The instrument has been executed by Pan American Petroleum Corporation and Bell Petroleum Corporation whose interest represents more than 75% of the working interest ownership of said unit. We also enclose for your information a Xerox copy of letter dated February 9, 1970, from the USGS approving said termination along with a Xerox copy of letter dated February 2, 1970, from the Commissioner of Public Lands approving said termination.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION


Jack D. Anderson

JDA:sh

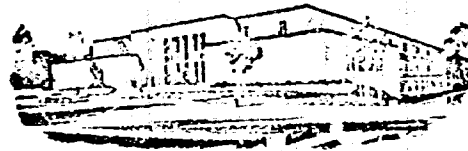
Attachment

JACK

State of New Mexico



ALEX J. ARMIJO
COMMISSIONER



Commissioner of Public Lands

February 2, 1970

P. O. Box 1148
SANTA FE, NEW MEXICO

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

Re: East Buffalo Valley Unit
TERMINATION
Chaves County, New Mexico

ATTENTION: Mr. Jack D. Anderson

Gentlemen:

Your request received February 2, 1970, to terminate the East Buffalo Valley Unit pursuant to Section 20 of the Unit Agreement for the Development and Operation of the East Buffalo Valley Unit, is hereby approved, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

Enclosed is one approved copy of the termination.

Very truly yours,

Ted Bilberry
Ted Bilberry, Director
Oil and Gas Department

TB/ML/s
encl.

cc: USGS-Roswell, New Mexico
OCC- Santa Fe, New Mexico



United States Department of the Interior

GEOLOGICAL SURVEY

Drawer 1857
Roswell, New Mexico 88201

February 9, 1970

Pan American Petroleum Corp.
P. O. Box 1410
Fort Worth, Texas 76101

Attention: Mr. Jack D. Anderson

Gentlemen:

Termination of the East Buffalo Valley unit agreement, Chaves County, New Mexico, pursuant to section 20 thereof, was approved, effective as of February 28, 1970.

Copies of the termination are being distributed to the Federal agencies concerned and one copy is returned herewith. It is requested that you furnish notice of this approval to each party in interest.

Sincerely yours,

Eddie R. Wyatt

EDDIE R. WYATT
Acting Oil and Gas Supervisor

TERMINATION OF UNIT AGREEMENT FOR THE
DEVELOPMENT AND OPERATION OF THE
EAST BUFFALO VALLEY UNIT
COUNTY OF CHAVES, STATE OF NEW MEXICO, AND
APPLICATION FOR APPROVAL THEREOF

The Unit Agreement for the Development and Operation of the East Buffalo Valley Unit Area, dated July 1, 1968, was approved on November 20, 1968, by the Acting Director of the United States Geological Survey, and on November 19, 1968, by the Commissioner of Public Lands for the State of New Mexico, and under the terms thereof Pan American Petroleum Corporation is designated as the Unit Operator; and

WHEREAS, the said undersigned parties are the owners of more than seventy-five (75) per centum on an acreage basis of the working interest in the East Buffalo Valley Unit, Chaves County, New Mexico; and

WHEREAS, under the terms of Section 20 of said Unit Agreement, the Unit Agreement may be terminated by not less than seventy-five (75) per centum of the owners of the working interest on an acreage basis upon approval of such termination by the Director of the United States Geological Survey and of the Commissioner of Public Lands for the State of New Mexico.

NOW, THEREFORE, the Unit Agreement for the Development and Operation of the East Buffalo Valley Unit Area, County of Chaves, State of New Mexico, is hereby terminated as of the date hereof, and the undersigned working interest owners owning not less than seventy-five (75) per centum on an acreage basis of such working interest do hereby request approval of such termination by the Director of the United States Geological Survey and the Commissioner of Public Lands for the State of New Mexico.

IN WITNESS WHEREOF, this instrument is executed as of the 20th day of January, 1970.

ATTEST:

Harry P. Hickman
Assistant Secretary

ATTEST:

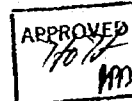
Agnes Green
Assistant Secretary

PAN AMERICAN PETROLEUM CORPORATION

By James M. Smith
Its Attorney in Fact

BELL PETROLEUM CORPORATION

By J. R. Wright
Vice President



APPROVED, this _____ day of _____,
1970, effective as of January 20, 1970.

REGIONAL OIL AND GAS SUPERVISOR
UNITED STATES GEOLOGICAL SURVEY

APPROVED, this _____ day of _____,
1970, effective as of January 20, 1970.

ALEX ARMIJO, Commissioner of Public Lands

THE STATE OF TEXAS

COUNTY OF TARRANT

The foregoing instrument was acknowledged before me this 23rd day
of January, 1970, by D. B. Mason, Jr., as Attorney
in fact on behalf of PAN AMERICAN PETROLEUM CORPORATION.

My Commission expires:

June 1, 1971

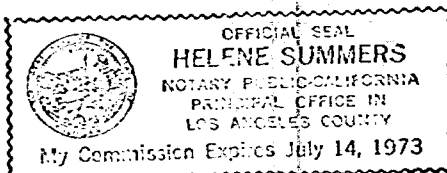
Velma B. Craft VELMA B. CRAFT
Notary Public in and for
Tarrant County, Texas

THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

The foregoing instrument was acknowledged before me this 27th day
of January, 1970, by R.J. Tingle, as Vice
President on behalf of BELL PETROLEUM CORPORATION.

My Commission expires:



Helene Summers
Notary Public in and for
Los Angeles County, California



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Denver 1887
Bureau, New Mexico 86201

December 6, 1968

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

Attention: Mr. Jack D. Anderson

Gentlemen:

Your letter of December 2 transmits six copies of a ratification and joinder to the North Crow Flats unit agreement, No. 14-08-0001-11562, executed by Jack J. and Celeste C. Grynberg, Aubrey and Jacqueline Davina, Fred T. and Marlene R. Davina, and Gerald A. and Zelda Gutman. Such parties are the owners of a five percent overriding royalty interest under lease New Mexico 0556541 which is tract 7 under the unit agreement. The joinder has also been executed by Pan American Petroleum Corporation as the contracted working interest owner of tract 7.

Pursuant to Section 28 of the North Crow Flats unit agreement, the above-described ratification and joinder is hereby accepted effective January 1, 1969. Copies of such instrument are being distributed to the appropriate Federal offices.

Sincerely yours,

(ORIG. SGD.) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

cc:
Washington (w/attach.)
Artesia (w/attach.)
BLM, Santa Fe (w/attach.)
Comm. of Pub. Lands, Santa Fe (ltr. only)
MOCG, Santa Fe (ltr. only) ✓

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

P. O. BOX 1410

FORT WORTH, TEXAS—76101

December 3, 1968

'68 DEC 5

MAIN OFFICE

3863

AFE 43,119
North Crow Flats Unit
Eddy County, New Mexico

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

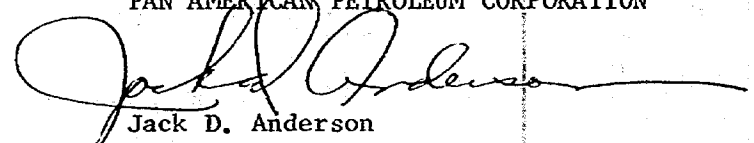
Gentlemen:

In accordance with Paragraph 3 on Page 2, Case No. 3863, Order No. R-3508, dated September 25, 1968, pertaining to the above captioned Unit, we enclose herewith xerox copy of Ratification and Joinder for the above captioned Unit executed by Jack J. Grynberg et al covering their overriding royalty interest in Tract 7 of the Exhibit "B" for the above captioned Unit.

The enclosed Ratification has also been executed for Pan American Petroleum Corporation as the Unit Operator and Working Interest Owner of said Tract 7.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION


Jack D. Anderson

cp

Enclosure

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

JACK J. GRYNBERG

CELESTE C. GRYNBERG, his wife

AUBREY DAVINE

JACQUELINE DAVINE, his wife

FRED T. DAVINE

MAXINE R. DAVINE, his wife

GERALD A. GUTMAN

ZELDA GUTMAN, his wife

STATE OF Colorado

COUNTY OF Denver

The foregoing instrument was acknowledged before me this 29th day of October, 1968, by GERALD A. GUTMAN and ZELDA GUTMAN, his wife

My Commission expires:

My Commission expires July 30, 1972

STATE OF Colorado

COUNTY OF Denver

The foregoing instrument was acknowledged before me this 29th day of October, 1968, by _____ of _____

My Commission expires:

~~My Commission expires July 30, 1972~~

By: _____

Its: _____

Attest: _____

Pursuant to Section 28 of said Unit Agreement, Pan American Petroleum Corporation, Unit Operator and working interest owner of Tract 7 of the Unit Area, does hereby consent to the foregoing ratification and joinder.

PAN AMERICAN PETROLEUM CORPORATION

By: [Signature]
Its Attorney in Fact



Charles W. Wallentin
Notary Public in and for Denver
County, Denver Colorado

STATE OF Colorado :

COUNTY OF Denver :

The foregoing instrument was acknowledged before me this 29th day of October, 1968, by DAVINE, his wife. AUBREY DAVINE and JACQUELINE

My Commission Expires:

My Commission expires July 30, 1972

Charles W. Wallentin
Notary Public in and for
Denver County, Colorado

STATE OF Colorado :

COUNTY OF Denver :

The foregoing instrument was acknowledged before me this 29th day of October, 1968, by FRED T. DAVINE and MAXINE R. DAVINE
his wife.

My Commission Expires:

My Commission expires July 30, 1972

Charles W. Wallentin
Notary Public in and for
Denver County, Colorado

STATE OF Colorado :

COUNTY OF Denver :

The foregoing instrument was acknowledged before me this 5th day of October, 1968, by JACK J. GRYNBERG and CELESTE C. GRYNBERG,
his wife.

My Commission Expires:

3-28-71

Marlene Gyal
Notary Public in and for
City & County County, Denver
Colorado

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

P. O. BOX 1419

FORT WORTH, TEXAS—76101

November 14, 1968

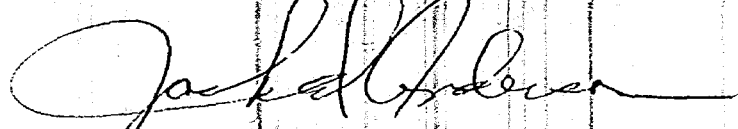
AFE 43,119
North Crow Flats Unit
Eddy County, New MexicoNew Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Gentlemen:

In accordance with Paragraph 3 contained on Page 2 of the Order of the Commission, being Case 3863, Order R-3508, we enclose xerox copy of the North Crow Flats complete Unit Agreement along with Ratifications by the working interest owners and overriding royalty owners, a xerox copy of the Certificate of Approval by the Commissioner of Public Lands dated October 31, 1968, and a xerox copy of the Certification - Determination of the United States Geological Survey dated November 1, 1968, wherein the Unit Agreement was approved effective November 1, 1968.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION


JACK D. ANDERSON

JDA/sh

Enclosures

NOV 18 1968

3863

UNIT AGREEMENT FOR THE DEVELOPMENT
AND OPERATION OF THE NORTH CROW FLATS UNIT AREA
COUNTY OF EDDY, STATE OF NEW MEXICO

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Exhibit "A" (Map)

Exhibit "B" (Description of interests subject to agreement)

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE
NORTH CROW FLATS UNIT AREA
COUNTY OF EDDY
STATE OF NEW MEXICO

No. _____

THIS AGREEMENT, entered into as of the 3rd day of September, 1958,
by and between the parties subscribing, ratifying, or consenting hereto, and
herein referred to as the "parties hereto",

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty, or other
oil and gas interests in the unit area subject to this agreement; and

WHEREAS, the term "Working Interest" as used herein shall mean the in-
terest held in unitized substances or in lands containing unitized sub-
stances by virtue of a lease, operating agreement, fee title, or otherwise,
which is chargeable with and obligated to pay or bear all or a portion of
the cost of drilling, developing, producing, and operating the land under
the unit or cooperative agreement. The right delegated to Unit Operator as
such by this agreement is not to be regarded as a working interest; and

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

WHEREAS, the Commissioner of Public Lands of the State of New Mexico
is authorized by an Act of the Legislature (Sec. 1, Chap. 162, Laws of 1951,
and Secs. 1 and 2, Chap. 176, Laws of 1951, See Chap. 7, Article 11, Secs.
39, 40 and 41 New Mexico Statutes 1953, Annotated) to consent to or approve
this agreement on behalf of the State of New Mexico, insofar as it covers and
includes lands and mineral interests of the State of New Mexico; and

1 WHEREAS, the Oil Conservation Commission of the State of New Mexico is 1
2 authorized by Act of Legislature (Chap. 168, Laws 1949) to approve this agree- 2
3 ment and the conservation provisions hereof; and 3
4 WHEREAS, the parties hereto hold sufficient interests in the North Crow 4
5 Flats Unit Area covering the land hereinafter described to give reasonably 5
6 effective control of operations therein; and 6
7 WHEREAS, it is the purpose of the parties hereto to conserve natural re- 7
8 sources, prevent waste, and secure other benefits obtainable through develop- 8
9 ment and operation of the area subject to this agreement under the terms, con- 9
10 ditions, and limitations herein set forth; 10
11 NOW, THEREFORE, in consideration of the premises and the promises herein 11
12 contained, the parties hereto commit to this agreement their respective in- 12
13 terests in the below-defined unit area, and agree severally among themselves 13
14 as follows: 14
15 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 15
16 1920, as amended, supra, and all valid pertinent regulations, including opera- 16
17 ting and unit plan regulations, heretofore issued thereunder or valid, perti- 17
18 nent, and reasonable regulations hereafter issued thereunder are accepted and 18
19 made a part of this agreement as to Federal lands, provided such regulations 19
20 are not inconsistent with the terms of this agreement; and as to non-Federal 20
21 lands, the oil and gas operating regulations in effect as of the effective date 21
22 hereof governing drilling and producing operations, not inconsistent with the 22
23 terms hereof or the laws of the State in which the non-Federal land is located, 23
24 are hereby accepted and made a part of this agreement. 24
25 2. UNIT AREA. The area specified on the map attached hereto marked Ex- 25
26 hibit A is hereby designated and recognized as constituting the unit area, con- 26
27 taining 6,418.64 acres, more or less. 27
28 Exhibit A shows, in addition to the boundary of the unit area, the boun- 28
29 daries and identity of tracts and leases in said area to the extent known to 29
30 the Unit Operator. Exhibit B attached hereto is a schedule showing to the 30
31 extent known to the Unit Operator the acreage, percentage, and kind of owner- 31
32 ship of oil and gas interests in all land in the unit area. However, nothing 32
33 herein or in said schedule or map shall be construed as a representation by 33
34 any party hereto as to the ownership of any interest other than such interest 34

1 or interests as are shown in said map or schedule as owned by such party. Ex- 1
2 hibits A and B shall be revised by the Unit Operator whenever changes in the 2
3 unit area render such revision necessary, or when requested by the Oil and Gas 3
4 Supervisor, hereinafter referred to as "Supervisor" and not less than six 4
5 copies of the revised exhibits shall be filed with the Supervisor, and two 5
6 copies each with the Commissioner of Public Lands of the State of New Mexico, 6
7 hereinafter referred to as the "Commissioner", and the Oil Conservation Commis- 7
8 sion, hereinafter referred to as "Commission". 8

9 The above-described unit area shall when practicable be expanded to in- 9
10 clude therein any additional tract or tracts regarded as reasonably necessary 10
11 or advisable for the purposes of this agreement, or shall be contracted to ex- 11
12 clude lands not within any participating area whenever such expansion or con- 12
13 traction is necessary or advisable to conform with the purposes of this agree- 13
14 ment. Such expansion or contraction shall be effected in the following manner: 14

15 (a) Unit Operator, on its own motion or on demand of the Director of the 15
16 Geological Survey, hereinafter referred to as "Director", or on demand of the 16
17 Commissioner after preliminary concurrence by the Director, shall prepare a 17
18 notice of proposed expansion or contraction describing the contemplated changes 18
19 in the boundaries of the unit area, the reasons therefor, and the proposed ef- 19
20 fective date thereof, preferably the first day of a month subsequent to the 20
21 date of notice. 21

22 (b) Said notice shall be delivered to the Supervisor and the Commissioner 22
23 and copies thereof mailed to the last known address of each working interest 23
24 owner, lessee, and lessor whose interests are affected, advising that 30 days 24
25 will be allowed for submission to the Unit Operator of any objections. 25

26 (c) Upon expiration of the 30-day period provided in the preceding item 26
27 (b) hereof, Unit Operator shall file with the Supervisor and the Commissioner 27
28 evidence of mailing of the notice of expansion or contraction and a copy of 28
29 any objections thereto which have been filed with the Unit Operator, together 29
30 with an application in sufficient number, for approval of such expansion or 30
31 contraction and with appropriate joinders. 31

32 (d) After due consideration of all pertinent information, the expansion 32
33 or contraction shall, upon approval by the Supervisor and the Commissioner, be- 33
34 come effective as of the date prescribed in the notice thereof. 34

1 (e) All legal subdivisions of unitized lands (i.e., 40 acres by Govern- 1
2 ment survey or its nearest lot or tract equivalent in instances of irregular 2
3 surveys, however, unusually large lots or tracts shall be considered in mul- 3
4 tiples of 40 acres, or the nearest aliquot equivalent thereof, for the purpose 4
5 of elimination under this subsection), no parts of which are entitled to be in 5
6 a participating area within 5 years commencing the first day of the month fol- 6
7 lowing the effective date of the first initial participating area established 7
8 under this unit agreement, shall be eliminated automatically from this agree- 8
9 ment, effective as of the first day thereafter, and such lands shall no longer 9
10 be a part of the unit area and shall no longer be subject to this agreement, 10
11 unless at the expiration of said 5-year period diligent drilling operations are 11
12 in progress on unitized lands not entitled to participation, in which event all 12
13 such lands shall remain subject hereto for so long as such drilling operations 13
14 are continued diligently, with not more than 90 days' time elapsing between the 14
15 completion of one such well and the commencement of the next such well, except 15
16 that the time allowed between such wells shall not expire earlier than 30 days 16
17 after the expiration of any period of time during which drilling operations are 17
18 prevented by a matter beyond the reasonable control of unit operator as set 18
19 forth in the section hereof entitled "Unavoidable Delay"; provided that all 19
20 legal subdivisions of lands not in a participating area and not entitled to be- 20
21 come participating under the applicable provisions of this agreement within 10 21
22 years after said first day of the month following the effective date of said 22
23 first initial participating area shall be eliminated as above specified. De- 23
24 termination of creditable "Unavoidable Delay" time shall be made by unit op- 24
25 erator and subject to approval of the Supervisor and the Commissioner. Elimina- 25
26 tion taking place after the completion of a well that has deferred elimination 26
27 shall be effective on the first day after the time allowed to commence the next 27
28 well. The unit operator shall, within 90 days after the effective date of any 28
29 elimination hereunder, describe the area so eliminated to the satisfaction of 29
30 the Supervisor and the Commissioner and promptly notify all parties in interest. 30
31 If conditions warrant extension of the 10-year period specified in this 31
32 subsection 2(e), a single extension of not to exceed 2 years may be accomplished 32
33 by consent of the owners of 90% of the current unitized working interests and 33
34 60% of the current unitized basic royalty interests (exclusive of the basic 34
35 royalty interests of the United States), on a total-nonparticipating-acreage 35
36 basis, respectively, with approval of the Director and the Commissioner, pro- 36

1 vided such extension application is submitted to the Director and the Commis- 1
2 sioner not later than 60 days prior to the expiration of said 10-year period. 2

3 Any expansion of the unit area pursuant to this section which embraces 3
4 lands theretofore eliminated pursuant to this subsection 2(e) shall not be 4
5 considered automatic commitment or recommitment of such lands. 5

6 3. UNITIZED LAND AND UNITIZED SUBSTANCES. All land committed to this 6
7 agreement shall constitute land referred to herein as "unitized land" or "land 7
8 subject to this agreement". All oil and gas in any and all formations of the 8
9 unitized land are unitized under the terms of this agreement and herein are 9
10 called "unitized substances". 10

11 4. UNIT OPERATOR. Pan American Petroleum Corporation is hereby designated 11
12 as Unit Operator and by execution hereof as Unit Operator agrees and consents to 12
13 accept the duties and obligations of Unit Operator for the discovery, develop- 13
14 ment, and production of unitized substances as herein provided. Whenever refer- 14
15 ence is made herein to the Unit Operator, such reference means the Unit Operator 15
16 acting in that capacity and not as an owner of interest in unitized substances, 16
17 and the term "working interest owner" when used herein shall include or refer 17
18 to Unit Operator as the owner of a working interest when such an interest is 18
19 owned by it. 19

20 5. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the 20
21 right to resign at any time prior to the establishment of a participating area 21
22 or areas hereunder, but such resignation shall not become effective so as to re- 22
23 lease Unit Operator from the duties and obligations of Unit Operator and ter- 23
24minate Unit Operator's rights as such for a period of 6 months after notice of 24
25 intention to resign has been served by Unit Operator on all working interest 25
26 owners, the Supervisor and the Commissioner, and until all wells then drilled 26
27 hereunder are placed in a satisfactory condition for suspension or abandonment, 27
28 whichever is required by the Supervisor, unless a new Unit Operator shall have 28
29 been selected and approved and shall have taken over and assumed the duties 29
30 and obligations of Unit Operator prior to the expiration of said period. 30

31 Unit Operator shall have the right to resign in like manner and subject to 31
32 like limitations as above provided at any time a participating area established 32
33 hereunder is in existence, but, in all instances of resignation or removal, un- 33
34 til a successor unit operator is selected and approved as hereinafter provided, 34
35 the working interest owners shall be jointly responsible for performance of the 35

1 duties of unit operator, and shall not later than 30 days before such resigna- 1
2 tion or removal becomes effective appoint a common agent to represent them in 2
3 any action to be taken hereunder. 3

4 The resignation of Unit Operator shall not release Unit Operator from any 4
5 liability for any default by it hereunder occurring prior to the effective date 5
6 of its resignation. 6

7 The Unit Operator may, upon default or failure in the performance of its 7
8 duties or obligations hereunder, be subject to removal by the same percentage 8
9 vote of the owners of working interests determined in like manner as herein pro- 9
10 vided for the selection of a new Unit Operator. Such removal shall be effective 10
11 upon notice thereof to the Supervisor and the Commissioner. 11

12 The resignation or removal of Unit Operator under this agreement shall not 12
13 terminate its right, title, or interest as the owner of a working interest or 13
14 other interest in unitized substances, but upon the resignation or removal of 14
15 Unit Operator becoming effective, such Unit Operator shall deliver possession of 15
16 all equipment, materials, and appurtenances used in conducting the unit opera- 16
17 tions and owned by the working interest owners to the new duly qualified succes- 17
18 sor Unit Operator or to the owners thereof if no such new Unit Operator is 18
19 elected, to be used for the purpose of conducting unit operations hereunder. 19
20 Nothing herein shall be construed as authorizing removal of any material, equip- 20
21 ment and appurtenances needed for the preservation of any wells. 21

22 6. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender his 22
23 or its resignation as Unit Operator or shall be removed as hereinabove pro- 23
24 vided, or a change of Unit Operator is negotiated by working interest owners, 24
25 the owners of the working interests in the participating area or areas accord- 25
26 ing to their respective acreage interests in such participating area or areas, 26
27 or, until a participating area shall have been established, the owners of the 27
28 working interests according to their respective acreage interests in all uni- 28
29 tized land, shall by majority vote select a successor Unit Operator: Provided, 29
30 that, if a majority but less than 75 per cent of the working interests quali- 30
31 fied to vote are owned by one party to this agreement, a concurring vote of 31
32 one or more additional working interest owners shall be required to select a 32
33 new operator. Such selection shall not become effective until 33

34 (a) a Unit Operator so selected shall accept in writing the duties and 34
25 responsibilities of Unit Operator, and 35

1 (b) the selection shall have been approved by the Supervisor and 1
2 the Commissioner. If no successor Unit Operator is selected and qualified as 2
3 herein provided, the Director at his election may declare this unit agreement 3
4 terminated. 4

5 7. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. If the Unit Opera- 5
6 tor is not the sole owner of working interests, costs and expenses incurred by 6
7 Unit Operator in conducting unit operations hereunder shall be paid and appor- 7
8 tioned among and borne by the owners of working interests, all in accordance 8
9 with the agreement or agreements entered into by and between the Unit Operator 9
10 and the owners if working interests, whether one or more, separately or collec- 10
11 tively. Any agreement or agreements entered into between the working interest 11
12 owners and the Unit Operator as provided in this section, whether one or more, 12
13 are herein referred to as the "unit operating agreement". Such unit operating 13
14 agreement shall also provide the manner in which the working interest owners 14
15 shall be entitled to receive their respective proportionate and allocated share 15
16 of the benefits accruing hereto in conformity with their underlying operating 16
17 agreements, leases, or other independent contracts, and such other rights and 17
18 obligations as between Unit Operator and the working interest owners as may be 18
19 agreed upon by Unit Operator and the working interest owners; however, no such 19
20 unit operating agreement shall be deemed either to modify any of the terms and 20
21 conditions of this unit agreement or to relieve the Unit Operator of any right 21
22 or obligation established under this unit agreement, and in case of any in- 22
23 consistency or conflict between the unit agreement and the unit operating 23
24 agreement, this unit agreement shall prevail. Three true copies of any unit 24
25 operating agreement executed pursuant to this section should be filed with the 25
26 Supervisor and two true copies with the Commissioner, prior to approval of 26
27 this unit agreement. 27

28 8. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise speci- 28
29 fically provided herein, the exclusive right, privilege, and duty of exercis- 29
30 ing any and all rights of the parties hereto which are necessary or conven- 30
31 ient for prospecting for, producing, storing, allocating, and distributing the 31
32 unitized substances are hereby delegated to and shall be exercised by the Unit 32
33 Operator as herein provided. Acceptable evidence of title to said rights shall 33
34 be deposited with said Unit Operator and, together with this agreement, shall 34
35 constitute and define the rights, privileges, and obligations of Unit Operator. 35

1 Nothing herein, however, shall be construed to transfer title to any land or to 1
2 any lease or operating agreement, it being understood that under this agreement 2
3 the Unit Operator, in its capacity as Unit Operator, shall exercise the rights 3
4 of possession and use vested in the parties hereto only for the purposes herein 4
5 specified. 5
6 9. DRILLING TO DISCOVERY. Within 6 months after the effective date here- 6
7 of, the Unit Operator shall begin to drill an adequate test well at a location 7
8 approved by the Supervisor if such location is upon lands of the United States, 8
9 and if upon State or patented lands, such location shall be approved by the 9
10 Commission and the Commissioner, unless on such effective date a well is being 10
11 drilled conformably with the terms hereof, and thereafter continue such drill- 11
12 ing diligently until the Mississippian formation is encountered or until at 12
13 a lesser depth unitized substances shall be discovered which can be produced 13
14 in paying quantities (to-wit: quantities sufficient to repay the costs of drill- 14
15 ing, and producing operations, with a reasonable profit) or the Unit Operator 15
16 shall at any time establish to the satisfaction of the Supervisor as to wells 16
17 on Federal lands, or to the Commission and the Commissioner as to wells on 17
18 State or patented lands, that further drilling of said well would be unwarrant- 18
19 ed or impracticable, provided, however, that Unit Operator shall not in any 19
20 event be required to drill said well to a depth in excess of 9,800 feet. Un- 20
21 til the discovery of a deposit of unitized substances capable of being produced 21
22 in paying quantities, the Unit Operator shall continue drilling diligently one 22
23 well at a time, allowing not more than 6 months between the completion of one 23
24 well and the beginning of the next well, at locations approved by the Super- 24
25 visor if such locations are on lands of the United States, and if upon State 25
26 or patented lands at locations approved by the Commission and the Commissioner, 26
27 until a well capable of producing unitized substances in paying quantities is 27
28 completed to the satisfaction of said Supervisor and Commissioner or until 28
29 it is reasonably proved that the unitized land is incapable of producing uni- 29
30 tized substances in paying quantities in the formations drilled hereunder. 30
31 Nothing in this section shall be deemed to limit the right of the Unit Opera- 31
32 tor to resign as provided in Section 5 hereof, or as requiring Unit Operator to 32
33 commence or continue any drilling during the period pending such resignation 33
34 becoming effective in order to comply with the requirements of this section. 34
35 The Supervisor and the Commissioner may modify the drilling requirements of this 35

1 section by granting reasonable extensions of time when, in their opinion, such 1
2 action is warranted. 2

3 Upon failure to comply with the drilling provisions of this section, the 3
4 Supervisor and the Commissioner may, after reasonable notice to the Unit Operator, 4
5 and each working interest owner, lessee, and lessor at their last known addres- 5
6 ses, declare this Unit Agreement terminated. 6

7 10. PLAN OF FURTHER DEVELOPMENT AND OPERATION. Within 6 months after com- 7
8 pletion of a well capable of producing unitized substances in paying quantities, 8
9 the Unit Operator shall submit for the approval of the Supervisor, the Commis- 9
10 sioner and the Commission an acceptable plan of development and operation for 10
11 the unitized land which, when approved by the Supervisor, the Commissioner and 11
12 the Commission, shall constitute the further drilling and operating obligations 12
13 of the Unit Operator under this agreement for the period specified therein. 13
14 Thereafter, from time to time before the expiration of any existing plan, the 14
15 Unit Operator shall submit for the approval of the Supervisor, the Commissioner 15
16 and the Commission a plan for an additional specified period for the development 16
17 and operation of the unitized land. 17

18 Any plan submitted pursuant to this section shall provide for the explora- 18
19 tion of the unitized area and for the diligent drilling necessary for deter- 19
20 mination of the area or areas thereof capable of producing unitized substances 20
21 in paying quantities in each and every productive formation and shall be as com- 21
22 plete and adequate as the Supervisor, the Commissioner and the Commission may 22
23 determine to be necessary for timely development and proper conservation of the 23
24 oil and gas resources of the unitized area and shall 24

25 (a) specify the number and locations of any wells to be drilled and the 25
26 proposed order and time for such drilling; and 26

27 (b) to the extent practicable specify the operating practices regarded 27
28 as necessary and advisable for proper conservation of natural resources. 28

29 Separate plans may be submitted for separate productive zones, subject to the 29
30 approval of the Supervisor, the Commissioner and the Commission. 30

31 Plans shall be modified or supplemented when necessary to meet changed 31
32 conditions or to protect the interests of all parties to this agreement. 32

33 Reasonable diligence shall be exercised in complying with the obligations of 33
34 the approved plan of development. The Supervisor and the Commissioner are 34

1 authorized to grant a reasonable extension of the 6-month period herein pre- 1
2 scribed for submission of an initial plan of development where such action is 2
3 justified because of unusual conditions or circumstances. After completion 3
4 hereunder of a well capable of producing any unitized substance in paying quan- 4
5 tities, no further wells, except such as may be necessary to afford protection 5
6 against operations not under this agreement or such as may be specifically ap- 6
7 proved by the Supervisor and the Commissioner, shall be drilled except in ac- 7
8 cordance with a plan of development approved as herein provided. 8

9 11. PARTICIPATION AFTER DISCOVERY. Upon completion of a well capable of 9
10 producing unitized substances in paying quantities or as soon thereafter as re- 10
11 quired by the Supervisor and the Commissioner, the Unit Operator shall submit 11
12 for approval by the Supervisor, the Commissioner and the Commission, a schedule 12
13 based on subdivisions of the public-land survey or aliquot parts thereof, of 13
14 all unitized land then regarded as reasonably proved to be productive of uni- 14
15 tized substances in paying quantities; all lands in said schedule on approval 15
16 of the Supervisor, the Commissioner and the Commission to constitute a partici- 16
17 pating area, effective as of the date of completion of such well or the effec- 17
18 tive date of the unit agreement, whichever is later. The acreages of both 18
19 Federal and non-Federal lands shall be based upon appropriate computations from 19
20 the courses and distances shown on the last approved public-land survey as of 20
21 the effective date of the initial participating area. Said schedule also shall 21
22 set forth the percentage of unitized substances to be allocated as herein pro- 22
23 vided to each unitized tract in the participating area so established, and 23
24 shall govern the allocation of production from and after the date the parti- 24
25 cipating area becomes effective. A separate participating area shall be es- 25
26 tablished in like manner for each separate pool or deposit of unitized sub- 26
27 stances or for any group thereof produced as a single pool or zone, and any 27
28 two or more participating areas so established may be combined into one with 28
29 the consent of the owners of all working interests in the lands within the 29
30 participating areas so to be combined, on approval of the Supervisor, the Com- 30
31 missioner and the Commission. The participating area or areas so established 31
32 shall be revised from time to time, subject to like approval, whenever such 32
33 action appears proper as a result of further drilling operations or otherwise 33
34 to include additional land then regarded as reasonably proved to be produc- 34
35 tive in paying quantities, or to exclude land then regarded as reasonably 35

1 proved not to be productive in paying quantities and the percentage of alloca- 1
2 tion shall also be revised accordingly. The effective date of any revision 2
3 shall be the first of the month in which is obtained the knowledge or informa- 3
4 tion on which such revision is predicated, provided, however, that a more ap- 4
5 propriate effective date may be used if justified by the Unit Operator and ap- 5
6 proved by the Supervisor and the Commissioner and the Commission. No land shall 6
7 be excluded from a participating area on account of depletion of the unitized 7
8 substances. 8

9 It is the intent of this section that a participating area shall represent 9
10 the area known or reasonably estimated to be productive in paying quantities; 10
11 but, regardless of any revision of the participating area, nothing herein con- 11
12 tained shall be construed as requiring any retroactive adjustment for produc- 12
13 tion obtained prior to the effective date of the revision of the participating 13
14 area. 14

15 In the absence of agreement at any time between the Unit Operator and the 15
16 Supervisor, the Commissioner and the Commission as to the proper definition or re- 16
17 definition of a participating area, or until a participating area has, or areas 17
18 have, been established as provided herein, the portion of all payments affected 18
19 thereby may be impounded in a manner mutually acceptable to the owners of work- 19
20 ing interests, except royalties due the United States and the State of New 20
21 Mexico, which shall be determined by the Supervisor and the Commissioner, re- 21
22 spectively, and the amount thereof deposited, as directed by the Supervisor and 22
23 the Commissioner, respectively, to be held as unearned money until a partici- 23
24 pating area is finally approved and then applied as earned or returned in ac- 24
25 cordance with a determination of the sum due as Federal and State royalty on 25
26 the basis of such approved participating area. 26

27 Whenever it is determined, subject to the approval of the Supervisor, as 27
28 to the wells on Federal lands, the Commissioner as to wells on State lands, 28
29 and the Commission as to wells on patented lands, that a well drilled under 29
30 this agreement is not capable of production in paying quantities and inclusion 30
31 of the land on which it is situated in a participating area is unwarranted, 31
32 production from such well shall, for the purposes of settlement among all par- 32
33 ties other than working interest owners, be allocated to the land on which the 33
34 well is located so long as such land is not within a participating area es- 34
35 tablished for the pool or deposit from which such production is obtained. 35

1 Settlement for working interest benefits from such a well shall be made as pro- 1
2 vided in the unit operating agreement. 2

3 12. ALLOCATION OF PRODUCTION. All unitized substances produced from each 3
4 participating area established under this agreement, except any part thereof 4
5 used in conformity with good operating practices within the unitized area for 5
6 drilling, operating, camp and other production or development purposes, for re- 6
7 pressuring or recycling in accordance with a plan of development approved by 7
8 the Supervisor, the Commissioner and the Commission, or unavoidably lost, shall 8
9 be deemed to be produced equally on an acreage basis from the several tracts of 9
10 unitized land of the participating area established for such production and, for 10
11 the purpose of determining any benefits accruing under this agreement, each such 11
12 tract of unitized land shall have allocated to it such percentage of said produc- 12
13 tion as the number of acres of such tract included in said participating area 13
14 bears to the total acres of unitized land in said participating area, except that 14
15 allocation of production hereunder for purposes other than for settlement of the 15
16 royalty, overriding royalty, or payment out of production obligations of the re- 16
17 spective working interest owners, shall be on the basis prescribed in the unit 17
18 operating agreement whether in conformity with the basis of allocation herein 18
19 set forth or otherwise. It is hereby agreed that production of unitized sub- 19
20 stances from a participating area shall be allocated as provided herein regard- 20
21 less of whether any wells are drilled on any particular part or tract of said 21
22 participating area. If any gas produced from one participating area is used 22
23 for repressuring or recycling purposes in another participating area, the first 23
24 gas withdrawn from such last-mentioned participating area for sale during the 24
25 life of this agreement shall be considered to be the gas so transferred until 25
26 an amount equal to that transferred shall be so produced for sale and such gas 26
27 shall be allocated to the participating area from which initially produced as 27
28 constituted at the time of such final production. 28

29 13. DEVELOPMENT OR OPERATION OF NON-PARTICIPATING LAND OR FORMATIONS. 29
30 Any party hereto owning or controlling the working interest in any unitized 30
31 land having thereon a regular well location may with the approval of the 31
32 Supervisor, the Commissioner or the Commission, at such party's sole risk, 32
33 costs, and expense, drill a well to test any formation for which a partici- 33
34 pating area has not been established or to test any formation for which a 34

1 participating area has been established if such location is not within said 1
2 participating area, unless within 90 days of receipt of notice from said party 2
3 of his intention to drill the well the Unit Operator elects and commences to 3
4 drill such a well in like manner as other wells are drilled by the Unit Opera- 4
5 tor under this agreement. 5

6 If any well drilled as aforesaid by a working interest owner results in 6
7 production such that the land upon which it is situated may properly be in- 7
8 cluded in a participating area, such participating area shall be established 8
9 or enlarged as provided in this agreement and the well shall thereafter be 9
10 operated by the Unit Operator in accordance with the terms of this agreement 10
11 and the unit operating agreement. 11

12 If any well drilled as aforesaid by a working interest owner obtains pro- 12
13 duction in quantities insufficient to justify the inclusion in a participating 13
14 area of the land upon which such well is situated, such well may be operated 14
15 and produced by the party drilling the same subject to the conservation re- 15
16 quirements of this agreement. The royalties in amount or value of production 16
17 from any such well shall be paid as specified in the underlying lease and agree- 17
18 ments affected. 18

19 14. ROYALTY SETTLEMENT. The United States and the State of New Mexico and 19
20 all royalty owners who, under existing contract, are entitled to take in kind 20
21 a share of the substances now unitized hereunder produced from any tract, shall 21
22 hereafter be entitled to the right to take in kind their share of the unitized 22
23 substances allocated to such tract, and Unit Operator, or in case of the opera- 23
24 tion of a well by a working interest owner as herein in special cases provided 24
25 for, such working interest owner, shall make deliveries of such royalty share 25
26 taken in kind in conformity with the applicable contracts, laws, and regula- 26
27 tions. Settlement for royalty interest not taken in kind shall be made by 27
28 working interest owners responsible therefor under existing contracts, laws 28
29 and regulations on or before the last day of each month for unitized sub- 29
30 stances produced during the preceding calendar month; provided, however, that 30
31 nothing herein contained shall operate to relieve the lessors of any land 31
32 from their respective lease obligations for the payment of any royalties due 32
33 under their leases. 33

34 If gas obtained from lands not subject to this agreement is introduced 34

1 into any participating area hereunder, for use in repressuring, stimulation of 1
2 production, or increasing ultimate recovery, which shall be in conformity with 2
3 a plan first approved by the Supervisor and the Commissioner, a like amount of 3
4 gas, after settlement as herein provided for any gas transferred from any ot- 4
5 her participating area and with due allowance for loss or depletion from any 5
6 cause, may be withdrawn from the formation into which the gas was introduced, 6
7 royalty free as to dry gas, but not as to the products extracted therefrom; pro-7
8 vided that such withdrawal shall be at such time as may be provided in the plan 8
9 of operations or as may otherwise be consented to by the Supervisor, the Com- 9
10 missioner and the Commission as conforming to good petroleum engineering prac- 10
11 tice; and provided further, that such right of withdrawal shall terminate on 11
12 the termination of this unit agreement. 12

13 Royalty due the United States shall be computed as provided in the opera- 13
14 ting regulations and paid in value or delivered in kind as to all unitized sub- 14
15 stances on the basis of the amounts thereof allocated to unitized Federal land 15
16 as provided herein at the rates specified in the respective Federal leases, 16
17 or at such lower rate or rates as may be authorized by law or regulation; pro- 17
18 vided, that for leases on which the royalty rate depends on the daily average 18
19 production per well, said average production shall be determined in accordance 19
20 with the operating regulations as though each participating area were a single 20
21 consolidated lease. 21

22 15. RENTAL SETTLEMENT. Rental or minimum royalties due on leases com- 22
23 mitted hereto shall be paid by working interest owners responsible therefor 23
24 under existing contracts, laws, and regulations, provided that nothing herein 24
25 contained shall operate to relieve the lessees of any land from their respec- 25
26 tive lease obligations for the payment of any rental or minimum royalty in 26
27 lieu thereof due under their leases. Rental or minimum royalty for lands of 27
28 the United States subject to this agreement shall be paid at the rate speci- 28
29 fied in the respective leases from the United States unless such rental or 29
30 minimum royalty is waived, suspended, or reduced by law or by approval of the 30
31 Secretary or his duly authorized representative. Rentals on State of New 31
32 Mexico lands subject to this agreement shall be paid at the rates specified 32
33 in the respective leases, or may be reduced and suspended upon the order of 33
34 the Commissioner of Public Lands of the State of New Mexico pursuant to ap- 34
35 plicable laws and regulations. 35

1 With respect to any lease on non-Federal land containing provisions which 1
2 would terminate such lease unless drilling operations were within the time 2
3 therein specified commenced upon the land covered thereby or rentals paid for 3
4 the privilege of deferring such drilling operations, the rentals required 4
5 thereby shall, notwithstanding any other provision of this agreement, be deemed 5
6 to accrue and become payable during the term thereof as extended by this agree- 6
7 ment and until the required drilling operations are commenced upon the land 7
8 covered thereby or some portion of such land is included within a participating 8
9 area. 9

10 16. CONSERVATION. Operations hereunder and production of unitized sub- 10
11 stances shall be conducted to provide for the most economical and efficient 11
12 recovery of said substances without waste, as defined by or pursuant to State 12
13 or Federal law or regulation. 13

14 17. DRAINAGE. The Unit Operator shall take appropriate and adequate 14
15 measures to prevent drainage of unitized substances from unitized land by wells 15
16 on land not subject to this agreement, or, with prior consent of the Supervisor 16
17 or the Commissioner, pursuant to applicable regulations pay a fair and reason- 17
18 able compensatory royalty as determined by the Supervisor or the Commissioner. 18

19 18. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions, 19
20 and provisions of all leases, subleases, and other contracts relating to ex- 20
21 ploration, drilling, development, or operation for oil or gas of lands com- 21
22 mitted to this agreement are hereby expressly modified and amended to the ex- 22
23 tent necessary to make the same conform to the provisions hereof, but other- 23
24 wise to remain in full force and effect; and the parties hereto hereby con- 24
25 sent that the Secretary and the Commissioner, respectively, shall and by their 25
26 approval hereof, or by the approval hereof by their duly authorized represen- 26
27 tatives, do hereby establish, alter, change, or revoke the drilling, pro- 27
28 ducing, rental, minimum royalty, and royalty requirements of Federal and 28
29 State leases committed hereto and the regulations in respect thereto to con- 29
30 form said requirements to the provisions of this agreement, and, without 30
31 limiting the generality of the foregoing, all leases, subleases, and con- 31
32 tracts are particularly modified in accordance with the following: 32

33 (a) The development and operation of lands subject to this agreement 33
34 under the terms hereof shall be deemed full performance of all obligations 34

1 for development and operation with respect to each and every part or separately 1
2 owned tract subject to this agreement, regardless of whether there is any de- 2
3 velopment of any particular part or tract of the unit area, notwithstanding any-3
4 thing to the contrary in any lease, operating agreement or other contract by 4
5 and between the parties hereto, or their respective predecessors in interest, 5
6 or any of them. 6

7 (b) Drilling and producing operations performed hereunder upon any tract 7
8 of unitized lands will be accepted and deemed to be performed upon and for the 8
9 benefit of each and every tract of unitized land, and no lease shall be deemed 9
10 to expire by reason of failure to drill or produce wells situated on the land 10
11 therein embraced. 11

12 (c) Suspension of drilling or producing operations on all unitized lands 12
13 pursuant to direction or consent of the Secretary or his duly authorized re- 13
14 presentative, and on all unitized lands of the State of New Mexico pursuant 14
15 to the consent of the Commissioner, or his duly recognized representative, 15
16 shall be deemed to constitute such suspension pursuant to such direction or 16
17 consent as to each and every tract of unitized land. 17

18 (d) Each lease, sublease or contract relating to the exploration, drill- 18
19 ing, development or operation for oil or gas of lands other than those of the 19
20 United States committed to this agreement, which, by its terms might expire 20
21 prior to the termination of this agreement, is hereby extended beyond any such 21
22 term so provided therein so that it shall be continued in full force and effect 22
23 for and during the term of this agreement. 23

24 (e) Any Federal lease for a fixed term of twenty (20) years or any re- 24
25 newal thereof or any part of such lease which is made subject to this agree- 25
26 ment shall continue in force beyond the term provided therein until the ter- 26
27 mination hereof. Any other Federal lease committed hereto shall continue in 27
28 force beyond the term so provided therein or by law as to the land committed 28
29 so long as such lease remains subject hereto, provided that production is had 29
30 in paying quantities under this unit agreement prior to the expiration date 30
31 of the term of such lease, or in the event actual drilling operations are 31
32 commenced on unitized land, in accordance with the provisions of this agree- 32
33 ment, prior to the end of the primary term of such lease and are being dili- 33
34 gently prosecuted at that time, such lease shall be extended for two years and 34

1 so long thereafter as oil or gas is produced in paying quantities in accordance 1
2 with the provisions of the Mineral Leasing Act Revision of 1960. 2

3 (f) Each sublease or contract relating to the operation and development 3
4 of unitized substances from lands of the United States committed to this agree- 4
5 ment, which by its terms would expire prior to the time at which the underlying 5
6 lease, as extended by the immediately preceding paragraph, will expire, is here- 6
7 by extended beyond any such term so provided therein so that it shall be con- 7
8 tinued in full force and effect for and during the term of the underlying lease 8
9 as such term is herein extended. 9

10 (g) The segregation of any Federal lease committed to this agreement is 10
11 governed by the following provision in the fourth paragraph of Sec. 17(j) of 11
12 the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 12
13 781-784): "Any (Federal) lease heretofore or hereafter committed to any such 13
14 (unit) plan embracing lands that are in part within and in part outside of the 14
15 area covered by any such plan shall be segregated into separate leases as to the 15
16 lands committed and the lands not committed as of the effective date of unitiza- 16
17 tion: Provided, however, That any such lease as to the nonunitized portion shall 17
18 continue in force and effect for the term thereof but for not less than two 18
19 years from the date of such segregation and so long thereafter as oil or gas is 19
20 produced in paying quantities." 20

21 (h) Any lease, other than a Federal lease, having only a portion of its 21
22 lands committed hereto shall be segregated as to the portion committed and the 22
23 portion not committed, and the provisions of such lease shall apply separately 23
24 to such segregated portions commencing as of the effective date hereof. In 24
25 the event any such lease provides for a lump-sum rental payment, such payment 25
26 shall be prorated between the portions so segregated in proportion to the acre- 26
27 age of the respective tracts. 27

28 19. COVENANTS RUN WITH LAND. The covenants herein shall be construed to 28
29 be covenants running with the land with respect to the interest of the parties 29
30 hereto and their successors in interest until this agreement terminates, and 30
31 any grant, transfer, or conveyance of interest in land or leases subject here- 31
32 to shall be and hereby is conditioned upon the assumption of all privileges 32
33 and obligations hereunder by the grantee, transferee, or other successor in in- 33
34 terest. No assignment or transfer of any working interest, royalty, or other 34

1 interest subject hereto shall be binding upon Unit Operator until the first day 1
2 of the calendar month after Unit Operator is furnished with the original, pho- 2
3 tostatic, or certified copy of the instrument of transfer. 3

4 20. EFFECTIVE DATE AND TERM. This agreement shall become effective upon 4
5 approval by the Secretary and the Commissioner or their duly authorized repre- 5
6 sentatives and shall terminate five (5) years from said effective date unless 6

7 (a) such date of expiration is extended by the Director and the Commis- 7
8 sioner, or 8

9 (b) it is reasonably determined prior to the expiration of the fixed 9
10 term or any extension thereof that the unitized land is incapable of pro- 10
11 duction of unitized substances in paying quantities in the formations tested 11
12 hereunder and after notice of intention to terminate the agreement on such 12
13 ground is given by the Unit Operator to all parties in interest at their last 13
14 known addresses, the agreement is terminated with the approval of the Supervisor 14
15 and the Commissioner, or 15

16 (c) a valuable discovery of unitized substances has been made or accepted 16
17 on unitized land during said initial term or any extension thereof, in which 17
18 event the agreement shall remain in effect for such term and so long as uni- 18
19 tized substances can be produced in quantities sufficient to pay for the cost 19
20 of producing same from wells on unitized land within any participating area 20
21 established hereunder and, should production cease, so long thereafter as dili- 21
22 gent operations are in progress for the restoration of production or discovery 22
23 of new production and so long thereafter as the unitized substances so dis- 23
24 covered can be produced as aforesaid, or 24

25 (d) it is terminated as heretofore provided in this agreement. 25

26 This agreement may be terminated at any time by not less than 75 per centum, 26
27 on an acreage basis, of the owners of working interests signatory hereto, 27
28 with the approval of the Supervisor and the Commissioner; notice of any such 28
29 approval to be given by the Unit Operator to all parties hereto. 29

30 21. RATE OF PROSPECTING, DEVELOPMENT, AND PRODUCTION. The Director is 30
31 hereby vested with authority to alter or modify from time to time in his dis- 31
32 cretion the quantity and rate of production under this agreement when such 32
33 quantity and rate is not fixed pursuant to Federal or State law or does not 33
34 conform to any state-wide voluntary conservation or allocation program, which 34

1 is established, recognized, and generally adhered to by the majority of opera- 1
2 tors in such State, such authority being hereby limited to alteration or modi- 2
3 fication in the public interest, the purpose thereof and public interest to 3
4 be served thereby to be stated in the order of alteration or modification. 4
5 Without regard to the foregoing, the Director is also hereby vested with auth- 5
6 ority to alter or modify from time to time in his discretion the rate of pros- 6
7 pecting and development and the quantity and rate of production under this 7
8 agreement when such alteration or modification is in the interest of attain- 8
9 ing the conservation objectives stated in this agreement and is not in viola- 9
10 tion of any applicable Federal or State law; provided, further, no such alter- 10
11 ation or modification shall be effective as to any land of the State of New 11
12 Mexico as to the rate of prospecting and development in the absence of the 12
13 specific written approval thereof by the Commissioner and as to lands of the 13
14 State of New Mexico or privately owned lands subject to this agreement as to 14
15 the quantity and rate of production in the absence of specific written ap- 15
16 proval thereof by the Commissioner. 16

17 Powers in this section vested in the Director shall only be exercised af- 17
18 ter notice to Unit Operator and opportunity for hearing to be held not less 18
19 than 15 days from notice. 19

20 22. APPEARANCES. Unit Operator shall, after notice to other parties af- 20
21 fected, have the right to appear for and on behalf of any and all interests 21
22 affected hereby before the Department of the Interior and to appeal from or- 22
23 ders issued under the regulations of said Department or to apply for relief 23
24 from any of said regulations or in any proceedings relative to operations be- 24
25 fore the Department of the Interior or any other legally constituted author- 25
26 ity; provided, however, that any other interested party shall also have the 26
27 right at his own expense to be heard in any such proceeding. 27

28 23. NOTICES. All notices, demands or statements required hereunder to 28
29 be given or rendered to the parties hereto shall be deemed fully given if 29
30 given in writing and personally delivered to the party or sent by postpaid 30
31 registered mail, addressed to such party or parties at their respective ad- 31
32 dresses set forth in connection with the signatures hereto or to the ratifi- 32
33 cation or consent hereof or to such other address as any such party may have 33
34 furnished in writing to party sending the notice, demand or statement. 34

1 24. NO WAIVER OF CERTAIN RIGHTS. Nothing in this agreement contained shall 1
2 be construed as a waiver by any party hereto of the right to assert any legal 2
3 or constitutional right or defense as to the validity or invalidity of any law 3
4 of the State wherein said unitized lands are located, or of the United States, 4
5 or regulations issued thereunder in any way affecting such party, or as a 5
6 waiver by any such party of any right beyond his or its authority to waive. 6

7 25. UNAVOIDABLE DELAY. All obligations under this agreement requiring 7
8 the Unit Operator to commence or continue drilling or to operate on or produce 8
9 unitized substances from any of the lands covered by this agreement shall be 9
10 suspended while, but only so long as, the Unit Operator despite the exercise 10
11 of due care and diligence is prevented from complying with such obligations, in 11
12 whole or in part, by strikes, acts of God, Federal, State, or municipal law 12
13 or agencies, unavoidable accidents, uncontrollable delays in transportation, 13
14 inability to obtain necessary materials in open market, or other matters be- 14
15 yond the reasonable control of the Unit Operator whether similar to matters 15
16 herein enumerated or not. 16

17 26. NONDISCRIMINATION. In connection with the performance of work under 17
18 this agreement, the operator agrees to comply with all of the provisions of 18
19 Section 202(1) to (7), inclusive, of Executive Order 11246 (30 F.R. 12319), 19
20 which are hereby incorporated by reference in this agreement. 20

21 27. LOSS OF TITLE. In the event title to any tract of unitized land shall 21
22 fail and the true owner cannot be induced to join in this unit agreement, such 22
23 tract shall be automatically regarded as not committed hereto and there shall 23
24 be such readjustment of future costs and benefits as may be required on ac- 24
25 count of the loss of such title. In the event of a dispute as to title as 25
26 to any royalty, working interest, or other interests subject thereto, payment 26
27 or delivery on account thereof may be withheld without liability for interest 27
28 until the dispute is finally settled; provided, that, as to Federal and State 28
29 land or leases, no payments of funds due the United States or the State of 29
30 New Mexico should be withheld, but such funds shall be deposited as directed 30
31 by the Supervisor and the Commissioner, respectively; to be held as unearned 31
32 money pending final settlement of the title dispute, and then applied as 32
33 earned or returned in accordance with such final settlement. 33

34 Unit Operator as such is relieved from any responsibility for any de- 34
35 fect or failure of any title hereunder. 35

1 28. NON-JOINDER AND SUBSEQUENT JOINDER. If the owner of any substantial 1
2 interest in a tract within the unit area fails or refuses to subscribe or con- 2
3 sent to this agreement, the owner of the working interest in that tract may 3
4 withdraw said tract from this agreement by written notice to the Supervisor, the 4
5 Commissioner and the Unit Operator prior to the approval of this agreement by 5
6 the Supervisor and the Commissioner. Any oil or gas interests in lands within 6
7 the unit area not committed hereto prior to submission of this agreement for 7
8 final approval may thereafter be committed hereto by the owner or owners there- 8
9 of subscribing or consenting to this agreement, and, if the interest is a work- 9
10 ing interest, by the owner of such interest also subscribing to the unit operat- 10
11 ing agreement. After operations are commenced hereunder, the right of subse- 11
12 quent joinder, as provided in this section, by a working interest owner is sub- 12
13 ject to such requirements or approvals, if any, pertaining to such joinder, as 13
14 may be provided for in the unit operating agreement. After final approval 14
15 hereof joinder by a non-working interest owner must be consented to in writing 15
16 by the working interest owner committed hereto and responsible for the payment 16
17 of any benefits that may accrue hereunder in behalf of such non-working interest. 17
18 Joinder by any owner of a non-working interest, at any time, must be accompanied 18
19 by appropriate joinder by the owner of the corresponding working interest in 19
20 order for the interest to be regarded as committed hereto. Joinder to the unit 20
21 agreement by a working-interest owner, at any time, must be accompanied by ap- 21
22 propriate joinder to the unit operating agreement, if more than one committed 22
23 working-interest owner is involved, in order for the interest to be regarded 23
24 as committed to this unit agreement. Except as may otherwise herein be pro- 24
25 vided subsequent joinders to this agreement shall be effective as of the first 25
26 day of the month following the filing with the Supervisor and the Commissioner 26
27 of duly executed counterparts of all or any papers necessary to establish ef- 27
28 fective commitment of any tract to this agreement unless objection to such 28
29 joinder is duly made within 60 days by the Supervisor or the Commissioner. 29

30 29. COUNTERPARTS. This agreement may be executed in any number of 30
31 counterparts no one of which needs to be executed by all parties or may be 31
32 ratified or consented to by separate instrument in writing specifically re- 32
33 ferring hereto and shall be binding upon all those parties who have executed 33
34 such a counterpart, ratification, or consent hereto with the same force and 34
35 effect as if all such parties had signed the same document and regardless of 35

whether or not it is executed by all other parties owning or claiming an interest in the lands within the above-described unit area.

30. SURRENDER. Nothing in this agreement shall prohibit the exercise by any working interest owner of the right to surrender vested in such party in any lease, sub-lease, or operating agreement as to all or any part of the lands covered thereby, provided that each party who will or might acquire such working interest by such surrender or by forfeiture as hereafter set forth, is bound by the terms of this agreement.

If as a result of any such surrender, the working interest rights as to such lands become vested in any party other than the fee owner of the unitized substances, said party shall forfeit such rights and no further benefits from operation hereunder as to said land shall accrue to such party, unless within ninety (90) days thereafter said party shall execute this agreement and the unit operating agreement as to the working interest acquired through such surrender, effective as though such land had remained continuously subject to this agreement and the unit operating agreement. And in the event such agreements are not so executed, the party next in the chain of title shall be and become the owner of such working interest at the end of such ninety (90) day period, with the same force and effect as though such working interest had been surrendered to such party.

If as the result of any such surrender or forfeiture the working interest rights as to such lands become vested in the fee owner of the unitized substances, such owner may:

(1) Execute this agreement and the unit operating agreement as a working interest owner, effective as though such land had remained continuously subject to this agreement and the unit operating agreement.

(2) Again lease such lands but only under the condition that the holder of such lease shall within thirty (30) days after such lands are so leased execute this agreement and the unit operating agreement as to each participating area theretofore established hereunder, effective as though such land had remained continuously subject to this agreement and the unit operating agreement.

(3) Operate or provide for the operation of such land independently of this agreement as to any part thereof or any oil or gas deposits therein not

1 then included within a participating area. 1

2 If the fee owner of the unitized substances does not execute this agree- 2
3 ment and the unit operating agreement as a working interest owner or again 3
4 lease such lands as above provided with respect to each existing participa- 4
5 ting area, within six (6) months after any such surrender or forfeiture, such 5
6 fee owner shall be deemed to have waived the right to execute the unit operat- 6
7 ing agreement or lease such lands as to each such participating area, and to 7
8 have agreed, in consideration for the compensation hereinafter provided, that 8
9 operations hereunder as to any such participating area or areas shall not be 9
10 affected by such surrender. 10

11 For any period the working interest in any lands are not expressly com- 11
12 mitted to the unit operating agreement as the result of any such surrender or 12
13 forfeiture, the benefits and obligations of operations accruing to such lands 13
14 under this agreement and the unit operating agreement shall be shared by the 14
15 remaining owners of unitized working interests in accordance with their respec- 15
16 tive participating working interest ownerships in any such participating area or 16
17 areas, and such owners of working interests shall compensate the fee owner of 17
18 unitized substances in such lands by paying sums equal to the rentals, minimum 18
19 royalties, and royalties applicable to such lands under the lease in effect 19
20 when the lands were unitized, as to such participating area or areas. 20

21 Upon commitment of a working interest to this agreement and the unit op- 21
22 erating agreement as provided in this section, an appropriate accounting and 22
23 settlement shall be made, to reflect the retroactive effect of the commit- 23
24 ment, for all benefits accruing to or payments and expenditures made or in- 24
25 curred on behalf of such surrendered working interest during the period be- 25
26 tween the date of surrender and the date of recommitment, and payment of any 26
27 moneys found to be owing by such an accounting shall be made as between the 27
28 parties then signatory to the unit operating agreement and this agreement 28
29 within thirty (30) days after the recommitment. The right to become a par- 29
30 ty to this agreement and the unit operating agreement as a working interest 30
31 owner by reason of a surrender or forfeiture as provided in this section 31
32 shall not be defeated by the nonexistence of a unit operating agreement and 32
33 in the event no unit operating agreement is in existence and a mutually ac- 33
34 ceptable agreement between the proper parties thereto cannot be consummated, 34

1 the Supervisor and the Commissioner may prescribe such reasonable and equitable 1
2 agreement as they deem warranted under the circumstances. 2

3 Nothing in this section shall be deemed to limit the right of joinder or 3
4 subsequent joinder to this agreement as provided elsewhere in this agreement. 4
5 The exercise of any right vested in a working interest owner to reassign such 5
6 working interest to the party from whom obtained shall be subject to the same 6
7 conditions as set forth in this section in regard to the exercise of a right 7
8 to surrender. 8

9 31. TAXES. The working interest owners shall render and pay for their 9
10 account and the account of the royalty owners all valid taxes on or measured 10
11 by the unitized substances in and under or that may be produced, gathered and 11
12 sold from the land subject to this contract after the effective date of this 12
13 agreement, or upon the proceeds or net proceeds derived therefrom. The work- 13
14 ing interest owners on each tract shall and may charge the proper proportion 14
15 of said taxes to the royalty owners having interests in said tract, and may 15
16 currently retain and deduct sufficient of the unitized substances or deriva- 16
17 tive products, or net proceeds thereof from the allocated share of each royal- 17
18 ty owner to secure reimbursement for the taxes so paid. No such taxes shall 18
19 be charged to the United States or to any lessor who has a contract with his 19
20 lessee which requires the lessee to pay such taxes. 20

21 32. CONFLICT OF SUPERVISION: Neither the Unit Operator nor the working 21
22 interest owners nor any of them shall be subject to any forfeiture, termina- 22
23 tion, or expiration of any rights hereunder or under any leases or contracts 23
24 subject hereto, or to any penalty or liability for delay or failure in whole 24
25 or in part to comply therewith to the extent that the said Unit Operator, 25
26 working interest owners or any of them are hindered, delayed, or prevented 26
27 from complying therewith by reason of failure of the Unit Operator to obtain 27
28 with the exercise of due diligence the concurrence of the representatives of 28
29 the United States and the representatives of the State of New Mexico in and 29
30 about any matters or thing concerning which it is required herein that such 30
31 concurrence be obtained. The parties hereto, including the Commission, agree 31
32 that all powers and authority vested in the Commission in and by any provi- 32
33 sions of this contract are vested in the Commission and shall be exercised by 33
34 it pursuant to the provisions of the laws of the State of New Mexico and 34

1 subject in any case to appeal or judicial review as may now or hereafter be 1
2 provided by the laws of the State of New Mexico. 2

3 33. NO PARTNERSHIP. It is expressly agreed that the relation of the 3
4 parties hereto is that of independent contractors and nothing in this agree- 4
5 ment contained, expressed or implied, nor any operations conducted hereunder, 5
6 shall create or be deemed to have created a partnership or association between 6
7 the parties hereto or any of them. 7

8 IN WITNESS WHEREOF, the parties hereto have caused this agreement to be 8
9 executed and have set opposite their respective names the date of execution. 9

UNIT OPERATOR

ATTEST:

PAN AMERICAN PETROLEUM CORPORATION

Assistant Secretary

By Attorney in Fact

DATE:

P. O. Box 1410
Oil and Gas Building
Fort Worth, Texas 76101

10-23-68

WORKING INTEREST OWNERS

ATTEST:

DATE:

Secretary By _____ President

Address: _____

ATTEST:

DATE:

Secretary By _____ President

Address: _____

ATTEST:

DATE:

Secretary By _____ President

Address: _____

ATTEST:

DATE:

Secretary By _____ President

Address: _____

THE STATE OF TEXAS)
)
COUNTY OF TARRANT)

The foregoing instrument was acknowledged before me this 23rd day of October, 1968, by D. B. Mason, Jr., as Attorney in Fact on behalf of PAN AMERICAN PETROLEUM CORPORATION.

My Commission expires:
June 1, 1969

Velma B. Craft
Notary Public in and for
Tarrant County, Texas VELMA B. CRAFT

THE STATE OF _____)
)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____, President of _____, a _____ corporation, on behalf of said corporation.

My Commission expires:

Notary Public in and for

County, _____

THE STATE OF _____)
)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____, President of _____, a _____ corporation, on behalf of said corporation.

My Commission expires:

Notary Public in and for

County, _____

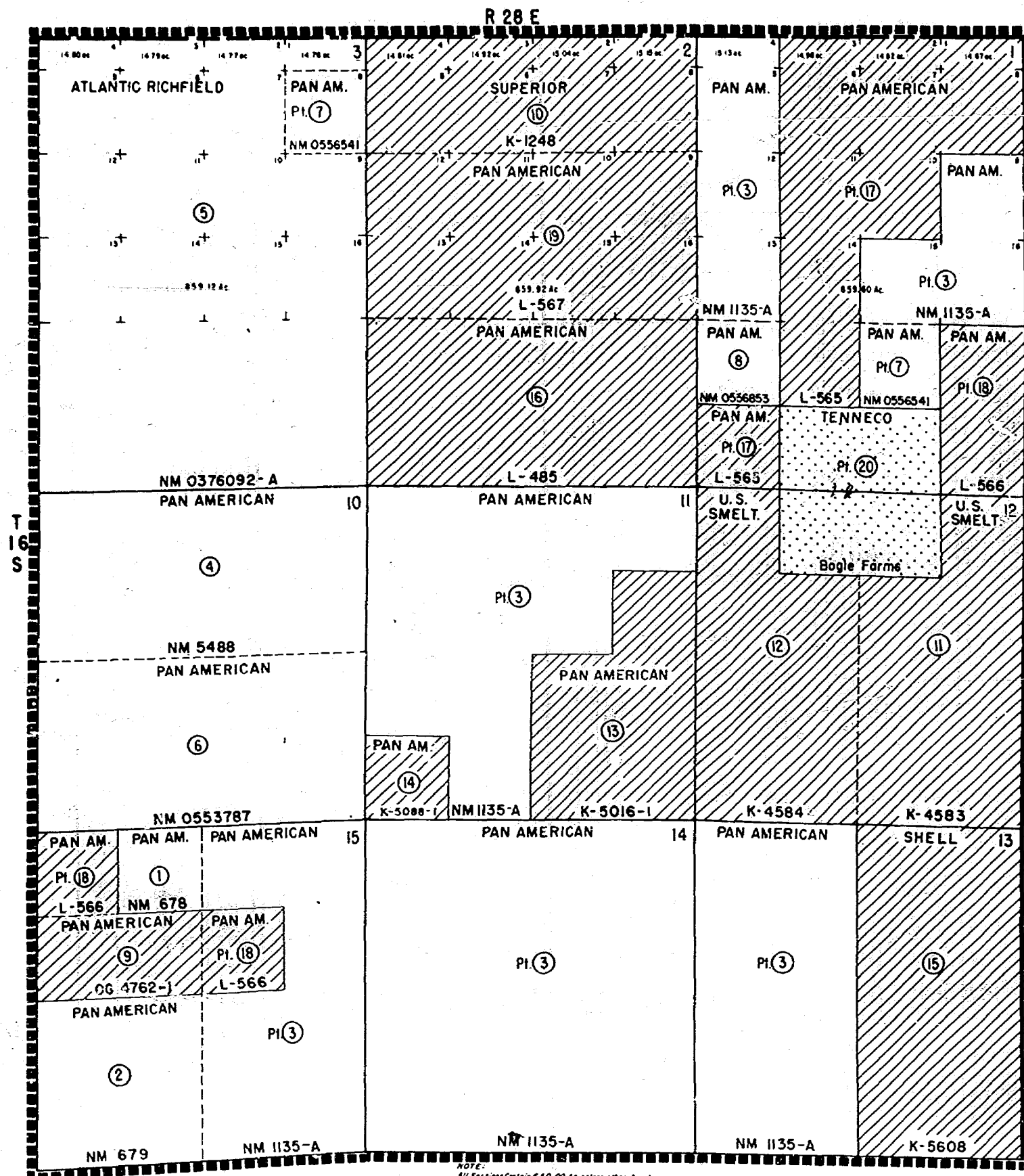
THE STATE OF _____)
)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____, President of _____, a _____ corporation, on behalf of said corporation.

My Commission expires:

Notary Public in and for

County, _____



FEDERAL LEASES

NM 678
NM 679
NM 1135-A
NM 5488
NM 0376092-A
NM 0553787
NM 0556541
NM 0556853

STATE LEASES

OG-4762-1
K-1248
K-4583
K-4584
K-5016-1
K-5088-1
K-5608
L-485
L-565
L-566
L-567

LEGEND

- = FEDERAL LAND
- = STATE LAND
- = FEE LAND
- 3 = TRACT NUMBER
- = UNIT BOUNDARY

NOTE:
All Sections Contain 640.00 Ac. unless otherwise shown.
All Numbered Lots Contain 40.00 Ac. unless otherwise shown.

Federal Lease Acres	3,674.25
State Lease Acres	2,584.39
Fee Lease Acres	160.00
Total Acres in Unit	6,418.64

EXHIBIT "A"
TO ACCOMPANY
NORTH CROW FLATS UNIT
EDDY COUNTY, NEW MEXICO
SCALE: 1" = 2000'

Exhibit "B" - North Crow Flats Unit Area, Eddy County, New Mexico

Revised October 21, 1968

Tract No.	Description of Land	Number of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Ownership Percentage	Lessee of Record	Overriding Royalty & Percentage	Working Interest & Percentage
<u>Federal Land</u>							
1	T-16-S, R-28-E Sec. 15: NE/4 NW/4	40.00	NM-678 10-31-76	USA - All (12.5%)	Pan American Petroleum Corporation	Donald W. Jensen and wife, Pauline S. Jensen - 2%; Robert L. Haynie and wife, Sue H. Haynie - 3%	Pan American Petroleum Corporation 100%
2	Sec. 15: SW/4	160.00	NM-679 10-31-76	USA - All (12.5%)	Pan American Petroleum Corporation	Ralph E. Smith and wife, Peggy D. Smith - 3%	Pan American Petroleum Corporation 100%
3	Sec. 1: Lots 4, 5, 9, 12, 13, 15, 16 Sec. 11: NW/4, N/2 NE/4, SW/4 NE/4, N/2 SW/4, SE/4 SW/4 Sec. 13: W/2 Sec. 14: All Sec. 15: SE/4, N/2 NE/4, SE/4 NE/4	1895.13	NM-1135-A 12-31-76	USA - All (12.5%)	Pan American Petroleum Corporation	John Oakason - $\frac{1}{2}$ of 3%; C. John Perts and wife, Lillian K. Perts - $\frac{1}{4}$ of 3%; J. Humphrey Russell and wife, Evelyn M. Russell - $\frac{1}{4}$ of 3%	Pan American Petroleum Corporation 100%
4	Sec. 10: N/2	320.00	NM-5488 4-30-78	USA - All (12.5%)	Pan American Petroleum Corporation	F. Kenneth Millhollen and wife, Mary E. Millhollen; James V. O'Kane and wife, Doris E. O'Kane - 5%	Pan American Petroleum Corporation 100%
5	Sec. 3: Lots 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, S/2	819.12	NM-0376092-A 4-30-73	USA - All (12.5%)	Atlantic Richfield Company	R. E. Boyle and wife, Sweetie J. Boyle - 3%	Atlantic Richfield Company - 100%

Tract No.	Description of Land	Number of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Ownership Percentage	Lessee of Record	Overriding Royalty & Percentage	Working Interest & Percentage
6	T-16-S, R-28-E Sec. 10: S/2	320.00	NM-0553787 5-31-74	USA - All (12.5%)	Pan American Petroleum Corporation	William H. Moore and wife, Florence I. Moore - 25%; Philadelphia Oil Company of California - 25% - Tesoro Petroleum Corporation - 3%	Pan American Petroleum Corporation - 100%
7	Sec. 1: NW/4 SE/4 Sec. 3: Lot 8	80.00	NM-0556541 3-31-75	USA - All (12.5%)	Pan American Petroleum Corporation	Jack J. Grynberg and wife, Celeste C. Grynberg - 1/2 of 5%; Audrey Davine and wife, Jacqueline Davine - 1/6 of 5%; Fred T. Davine and wife, Maxine R. Davine - 1/6 of 5%; Gerald A. Gutman and wife, Zelda Gutman - 1/6 of 5%	Pan American Petroleum Corporation - 100%
8	Sec. 1: NW/4 SW/4	40.00	NM-0556853 4-30-75	USA - All (12.5%)	Pan American Petroleum Corporation	M. H. McGrail - 3%	Pan American Petroleum Corporation - 100%

8 Federal Tracts: 3,674.25 Acres

Tract No.	Description of Land	Number of Acres	Serial No. & Expiration	Basic Royalty & Ownership	Lessee of Record	Overriding Royalty & Percentage	Working Interest & Percentage
<u>State Acreage</u>							
9	T-16-S, R-28-E Sec. 15: S/2 NW/4	80.00	OG-4762-1 11-18-68	State (12.5%)	Pan American Petroleum Corporation	None	Pan American Petroleum Corporation 100%
10	Sec. 2: Lots 1,2,3,4 5,6,7,8	219.92	K-1248 3-21-71	State (12.5%)	Superior Oil Company	None	Superior Oil Company - 100%
11	Sec. 12: SE/4, S/2 NE/4, NE/4 NE/4	280.00	K-4583 12-15-74	State (12.5%)	U.S. Smelting, Mining and Refining Company	None	U.S. Smelting, Mining and Refining Company - 100%
12	Sec. 12: SW/4, S/2 NW/4, NW/4 NW/4	280.00	K-4584 12-15-74	State (12.5%)	U.S. Smelting, Mining and Refining Company	None	U.S. Smelting, Mining and Refining Company 100%
13	Sec. 11: SE/4, SE/4 NE/4	200.00	K-5016-1 5-18-75	State (12.5%)	Pan American Petroleum Corporation	Hanagan and Hanagan, a partnership of Robert G. Hanagan and Hugh E. Hanagan - \$800.00 per acre production payment out of 5%	Pan American Petroleum Corporation 100%
14	Sec. 11: SW/4 SW/4	40.00	K-5088-1 6-15-75	State (12.5%)	Pan American Petroleum Corporation	Hanagan and Hanagan, a partnership of Robert G. Hanagan and Hugh E. Hanagan - \$800.00 per acre production payment out of 5%	Pan American Petroleum Corporation 100%
15	Sec. 13: E/2	320.00	K-5608 1-18-76	State (12.5%)	Shell Oil Company	None	Shell Oil Company - 100%
16	Sec. 2: S/2	320.00	L-485 12-19-77	State (12.5%)	Pan American Petroleum Corporation	None	Pan American Petroleum Corporation 100%

Tract No.	Description of Land	Number of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Ownership Percentage	Lessee of Record	Overriding Royalty & Percentage	Working Interest & Percentage
17	Sec. 1: Lots 1,2,3,6,7,8,10,11,14, NE/4 SW/4, SW/4 SW/4	364.47	L-565 1-16-78	State (12.5%)	Pan American Petroleum Corporation	None	Pan American Petroleum Corporation 100%
18	Sec. 1: E/2 SE/4 Sec. 15: NW/4 NW/4, SW/4 NE/4	160.00	L-566 1-16-78	State (12.5%)	Pan American Petroleum Corporation	None	Pan American Petroleum Corporation 100%
19	Sec. 2: Lots 9,10,11,12,13,14,15,16	320.00	L-567 1-16-78	State (12.5%)	Pan American Petroleum Corporation	None	Pan American Petroleum Corporation 100%
11 State of New Mexico Tracts: 2,584.39 Acres							
<u>Fee Acreage</u>							
20	T-16-S, R-28-E Sec. 1: SE/4 SW/4, SW/4 SE/4 Sec. 12: NE/4 NW/4, NW/4 NE/4	160.00	HBP	Bogle Farms, Inc. - All	Tenneco Oil Company	None	Tenneco Oil Company 100%

1 Fee Tract: 160 Acres

TOTAL:	Federal	-	3,674.25 Acres
	State	-	2,584.39 Acres
	Fee	-	<u>160.00 Acres</u>
			6,418.64 Acres

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

United States Smelting Refining and Mining Company

By: J. V. Neuman, Jr.
J. V. Neuman, Jr., Vice President
Its: Mining and Oil Operations

Attest: _____

STATE OF _____)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____, 1968, by _____.

My Commission expires: _____

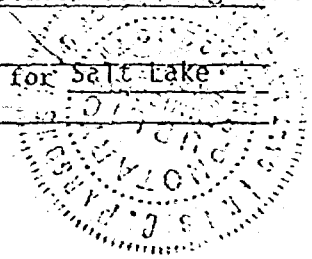
Notary Public in and for _____
County, _____

STATE OF UTAH)
COUNTY OF SALT LAKE)

The foregoing instrument was acknowledged before me this 28 day of October, 1968, by J. V. Neuman, Jr., Vice President of United States Smelting Refining and Mining Company Mining and Oil Operations

My Commission expires: _____
My Commission Expires March 22, 1971

Notary Public in and for Salt Lake
County, Utah



RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

SHELL OIL COMPANY

By: [Signature]

Its: Attorney in Fact

Attest: _____

STATE OF _____)

COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____

My Commission expires: _____

Notary Public in and for _____
County, _____

STATE OF TEXAS)

COUNTY OF MIDLAND)

The foregoing instrument was acknowledged before me this 25 day of October, 1968, by V. PEARSON, Attorney in Fact of SHELL OIL COMPANY

My Commission expires: January 1, 1969

[Signature]
Notary Public in and for Midland
County, Texas

Notary Public in and for
Midland County, Texas

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

ATLANTIC RICHFIELD COMPANY

By: S. J. Smith

Its: ATTORNEY IN FACT

Attest: _____

STATE OF _____)

COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____, 1968, by _____.

My Commission expires: _____

Notary Public in and for _____
County, _____

STATE OF NEW MEXICO)

COUNTY OF CHAVES)

The foregoing instrument was acknowledged before me this 22nd day of October, 1968, by S. J. Smith, Attorney-in-Fact of ATLANTIC RICHFIELD COMPANY.

My Commission expires: _____

July 14, 1971

Barney R. McRae
Notary Public in and for Chaves
County, New Mexico

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

Robert L. Haynie
ROBERT L. HAYNIE
Sue H. Haynie
SUE H. HAYNIE, his wife

By: _____

Its: _____

Attest: _____

STATE OF Colorado
COUNTY OF Denver

The foregoing instrument was acknowledged before me this 11th day of October, 1968, by ROBERT L. HAYNIE and SUE H. HAYNIE, his wife

My Commission expires:

August 30, 1970

Ann H. Heston
Notary Public in and for Denver
County, State of Colorado

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this ____ day of _____, 1968, by _____ of _____

My Commission expires:

Notary Public in and for _____
County, _____

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

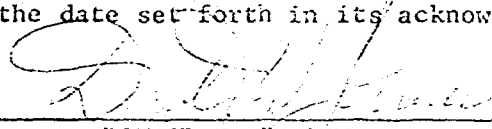
THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.


DONALD W. JENSEN


PAULINE S. JENSEN, his wife

By: _____

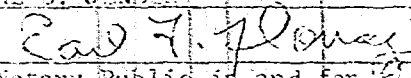
Its: _____

Attest: _____

STATE OF Florida
COUNTY OF Broward

The foregoing instrument was acknowledged before me this 3 day of Oct, 1968, by DONALD W. JENSEN and wife, PAULINE S. JENSEN

My Commission expires: _____


Notary Public in and for Broward County, _____

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____ of _____

My Commission expires: _____

Notary Public in and for _____ County, _____

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement, for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement"; and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

Ralph E. Smith

RALPH E. SMITH

PEGGY D. SMITH, his wife

By: _____

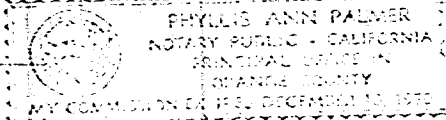
Its: _____

Attest: _____

STATE OF CALIFORNIA)
COUNTY OF ORANGE)

The foregoing instrument was acknowledged before me this 4 day of October, 1968, by RALPH E. SMITH and PEGGY D. SMITH, his wife.

My Commission expires: _____



Notary Public in and for Orange County, California

STATE OF _____)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____ of _____.

My Commission expires: _____

Notary Public in and for _____ County, _____

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

[Signature]
JOHN OLMSTON, a single man
[Signature]
C. JOEY PERIS
[Signature]
LILLIAN K. PERIS, his wife
[Signature]
J. HUMPHREY RUSSELL
[Signature]
EVELYN M. RUSSELL, his wife

By: _____
Its: _____
Attest: _____

STATE OF PENNA)
COUNTY OF ALLEY)

The foregoing instrument was acknowledged before me this 9th day of OCT, 1968, by J. HUMPHREY RUSSELL and EVELYN M. RUSSELL, his wife.

My Commission expires:

JOSEPH H. WAGNER, Notary Public
Williams Twp., Allegheny County, Pa.
4067 Greensburg Pike, Pgh., Pa. 15221
My Commission Expires March 25, 1970

STATE OF _____)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____ of _____.

My Commission expires:

Notary Public in and for _____
County, _____

STATE OF Penn. :

COUNTY OF Franklin :

The foregoing instrument was acknowledged before me this 9th day of Oct., 1968, by C. JOHN PINTS and LILLIAN K. PINTS, his wife.

My Commission Expires:

JOSEPH H. WARNER, Notary Public
Wilkes Barre, Luzerne County, Pa.
4007 Greenburg Pike, 1st Fl., Pa. 18221
My Commission Expires March 28, 1970

Joseph H. Warner
Notary Public in and for
County, Franklin

STATE OF Utah :

COUNTY OF Salt Lake :

The foregoing instrument was acknowledged before me this 10th day of Oct., 1968, by JOHN CAKASON, a single man.

My Commission Expires:

3-29-69

John Mac Overton
Notary Public in and for
Salt Lake City, Utah County, Salt Lake

RAPIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

F. Kenneth Millhollen
F. KENNETH MILLHOLLEN

Mary E. Millhollen
MARY E. MILLHOLLEN, his wife

James V. O'Kane
JAMES V. O'KANE

Doris E. O'Kane
DORIS E. O'KANE, his wife

By: _____

Its: _____

Attest: _____

STATE OF California)

COUNTY OF Los Angeles)

The foregoing instrument was acknowledged before me this 3rd day of October, 1968, by JAMES V. O'KANE and DORIS E. O'KANE, his wife.

My Commission expires:

My Commission Expires July 31, 1971

June E. Blum
JUNE E. BLUM, Public in and for Los Angeles
County, California
LOS ANGELES COUNTY

STATE OF California :

COUNTY OF Los Angeles :

The foregoing instrument was acknowledged before me this 3rd day of October, 1968, by F. KENNETH MILLHOLLEN and MARY E.

MILLHOLLEN, his wife.

My Commission Expires:

My Commission Expires July 31, 1971

June E. Blum
JUNE E. BLUM, Public in and for Los Angeles
County, California

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

R. E. Boyle
R. E. BOYLE
Sweetie J. Boyle
SWEETIE J. BOYLE, his wife

By: _____
Its: _____
Attest: _____

STATE OF Texas)
COUNTY OF Eddy)

The foregoing instrument was acknowledged before me this 1 day of October, 1968, by R. E. BOYLE and SWEETIE J. BOYLE, his wife.

My Commission expires: Jan 1, 1969

[Signature]
Notary Public in and for New Mexico
County, Eddy

STATE OF _____)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____.

My Commission expires: _____

Notary Public in and for _____
County, _____

DECLARATION AND JOURNAL OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interest hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

TESORO PETROLEUM CORPORATION

By: _____

A. B. Miller

Its: _____

Vice President

Attest: _____

Donald D. Shirley

Assistant Secretary

STATE OF _____)

COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____, 1968, by _____.

My Commission expires: _____

Notary Public in and for _____

County, _____

STATE OF TEXAS)

COUNTY OF BEXAR)

The foregoing instrument was acknowledged before me this 3rd day of October, 1968, by A. B. Miller, Vice President of TESORO PETROLEUM CORPORATION.

My Commission expires: _____

June 3, 1969

Notary Public in and for _____

County, Texas

WALTER S. ALLEN
Notary Public in and for
Bexar County, Texas

RATIFICATION AND CORRECTION OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

PHILADELPHIA OIL COMPANY OF CALIFORNIA

By: [Signature] President

Its: _____

Attest: [Signature]

STATE OF CALIFORNIA)

COUNTY OF KERN)

The foregoing instrument was acknowledged before me this 2nd day of October, 1968, by _____.

My Commission expires: _____

Notary Public in and for _____
County, _____

STATE OF CALIFORNIA)

COUNTY OF KERN)

The foregoing instrument was acknowledged before me this 2nd day of October, 1968, by PHILADELPHIA OIL COMPANY OF CALIFORNIA of PHILADELPHIA OIL COMPANY OF CALIFORNIA.

My Commission . . .

MARIE A. SICKS
NOTARY PUBLIC - CALIFORNIA
MY COMM. EX. 21 IN
CENT. 100177

Notary Public in and for _____
County, _____

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

William H. Moore, H. E. Rickard, Executor
WILLIAM H. MOORE
FLORENCE I. MOORE, his wife
By: _____
Its: _____
Attest: _____

STATE OF California)
COUNTY OF Kern)

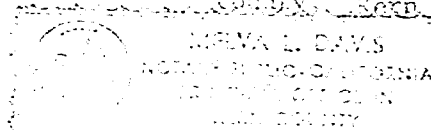
The foregoing instrument was acknowledged before me this 14th day of October, 1968, by WILLIAM H. MOORE and FLORENCE I. MOORE, his wife,
Associate of William H. Moore, H. E. Rickard, Executor
My Commission expires:

January 22, 1970

Notary Public in and for

San Diego, Kern

STATE OF _____)
COUNTY OF _____)



The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____ of _____

My Commission expires:

Notary Public in and for _____
County, _____

RATIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"
NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

M. H. McGRILL
M. H. McGRILL, a single man

By: _____

Its: _____

Attest: _____

STATE OF New Mexico
COUNTY OF Eddy

The foregoing instrument was acknowledged before me this 3rd day of October, 1968, by M. H. McGRILL, a single man

My Commission expires:

September 19, 1971

Thomas J. [Signature]
Notary Public in and for New Mexico
County, Eddy

STATE OF _____
COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____ of _____

My Commission expires:

Notary Public in and for _____
County, _____

RAZIFICATION AND JOINDER OF AGREEMENTS ENTITLED
"UNIT AGREEMENT" AND "UNIT OPERATING AGREEMENT"

NORTH CROW FLATS UNIT AREA
EDDY COUNTY, NEW MEXICO

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS, the undersigned owner (whether one or more) of royalty, overriding royalty, or production payment interests hereby acknowledges receipt of a true copy of the "Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Agreement", and the undersigned owner (whether one or more) of working interests hereby acknowledges receipt of a true copy of said Unit Agreement and a true copy of the "Unit Operating Agreement, North Crow Flats Unit Area, County of Eddy, State of New Mexico", dated September 3, 1968, hereinafter referred to as the "Unit Operating Agreement"; and

WHEREAS, Exhibits "A" and "B" attached to said Unit Agreement identify the tracts which may become a part of the North Crow Flats Unit Area; and

WHEREAS, The undersigned represents that it is the owner of a royalty, overriding royalty or production payment interest, or of a working interest, or both, in one or more of the tracts identified by said Exhibits.

NOW, THEREFORE, The undersigned owner of royalty, overriding royalty or production payment interests only desires to and does hereby ratify, confirm and become a party to said Unit Agreement, and the undersigned owner of working interests only, or the owner of both working interests and royalty, overriding royalty or production payment interests desires to and does hereby ratify, confirm and become a party to said Unit Agreement and said Unit Operating Agreement with respect to all of its interests in all of the tracts identified by said exhibits.

IN WITNESS WHEREOF, each of the undersigned parties has executed this instrument on the date set forth in its acknowledgement.

Robert G. Hanagan

ROBERT G. HANAGAN, Individually

Robert G. Hanagan

ROBERT G. HANAGAN, as Attorney in Fact
for Nancy Sue Hanagan, Hugh E. Hanagan,
Betty L. Hanagan, and Hanagan & Hanagan,
a partnership composed of Robert G.
Hanagan and Hugh E. Hanagan.

By: _____

Its: _____

Attest: _____

STATE OF N. Mex. :

COUNTY OF Chaves :

The foregoing instrument was acknowledged before me this 17th day of

October, 1968, by ROBERT G. HANAGAN, Individually, and as
Attorney in Fact for Nancy Sue Hanagan, Hugh E. Hanagan, Betty L. Hanagan, and Hanagan &
Hanagan, a partnership composed of Robert G. Hanagan and Hugh E. Hanagan.

My Commission expires:

10/26/69

Robert G. Hanagan
Notary Public in and for
Chaves County, N. Mex.

1968, by _____ of _____

My Commission expires:

Notary Public in and for _____
County, _____

CERTIFICATE OF APPROVAL

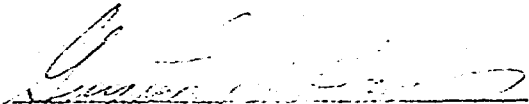
COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO
NORTH CROW FLATS UNIT
EDDY COUNTY, NEW MEXICO

There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, the attached Agreement for the development and operation of acreage which is described within the attached Agreement, dated SEPTEMBER 3, 1968, which said Agreement has been executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the state, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 7-11-39, 7-11-40, 7-11-41, 7-11-47, and 7-11-48, New Mexico Statutes Annotated, 1953 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, do hereby consent to and approve the said Agreement, however, such consent and approval being limited and restricted to such lands within the Unit Area, which are effectively committed to the Unit Agreement as of this date, and, further, that leases insofar as the lands covered thereby committed to this Unit Agreement shall be and the same are hereby amended to conform with the terms of such Unit Agreement, and said leases shall remain in full force and effect in accordance with the terms and conditions of said Agreement. This approval is subject to all of the provisions and requirements of the afore-said statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 31st. day of OCTOBER, 19 68.


COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

CERTIFICATION--DETERMINATION

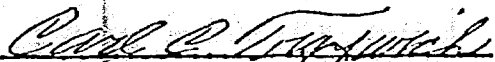
Pursuant to the authority vested in the Secretary of Interior, under the act approved February 25, 1920, 41 Stat. 437, as amended, 30 U. S. C. secs. 181, et seq., and delegated to the Oil and Gas Supervisors of the Geological Survey (33 F.R. 5812), I do hereby:

A. Approve the attached agreement for the development and operation of the North Crow Flats Unit Area, State of New Mexico.

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

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

Dated: November 1, 1968.


Acting Oil and Gas Supervisor
United States Geological Survey

Contract Number 14-08-0001-11562

INDEX

Exhibit "B" (Description of interests subject to agreement)

BEFORE EXAMINER NUTTER
OIL CONSERVATION CO.
Pamphlet EXHIBIT NO. 1
CASE NO. 3863

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE
NORTH CROW FLATS UNIT AREA
COUNTY OF BDDY
STATE OF NEW MEXICO

No. _____

THIS AGREEMENT, entered into as of the 3rd day of Sept., 1968,
by and between the parties subscribing, ratifying, or consenting hereto, and
herein referred to as the "parties hereto",

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty, or other
oil and gas interests in the unit area subject to this agreement; and

WHEREAS, the term "Working Interest" as used herein shall mean the in-
terest held in unitized substances or in lands containing unitized sub-
stances by virtue of a lease, operating agreement, fee title, or otherwise,
which is chargeable with and obligated to pay or bear all or a portion of
the cost of drilling, developing, producing, and operating the land under
the unit or cooperative agreement. The right delegated to Unit Operator as
such by this agreement is not to be regarded as a working interest; and

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

WHEREAS, the Commissioner of Public Lands of the State of New Mexico
is authorized by an Act of the Legislature (Sec. 1, Chap. 162, Laws of 1951,
and Secs. 1 and 2, Chap. 176, Laws of 1961, See Chap. 7, Article 11, Secs.
39, 40 and 41 New Mexico Statutes 1953, Annotated) to consent to or approve
this agreement on behalf of the State of New Mexico, insofar as it covers and
includes lands and mineral interests of the State of New Mexico; and

1 WHEREAS, the Oil Conservation Commission of the State of New Mexico is 1
2 authorized by Act of Legislature (Chap. 168, Laws 1949) to approve this agree- 2
3 ment and the conservation provisions hereof; and 3

4 WHEREAS, the parties hereto hold sufficient interests in the North Crow 4
5 Flats Unit Area covering the land hereinafter described to give reasonably 5
6 effective control of operations therein; and 6

7 WHEREAS, it is the purpose of the parties hereto to conserve natural re- 7
8 sources, prevent waste, and secure other benefits obtainable through develop- 8
9 ment and operation of the area subject to this agreement under the terms, con- 9
10 ditions, and limitations herein set forth; 10

11 NOW, THEREFORE, in consideration of the premises and the promises herein 11
12 contained, the parties hereto commit to this agreement their respective in- 12
13 terests in the below-defined unit area, and agree severally among themselves 13
14 as follows: 14

15 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 15
16 1920, as amended, supra, and all valid pertinent regulations, including opera- 16
17 ting and unit plan regulations, heretofore issued thereunder or valid, perti- 17
18 nent, and reasonable regulations hereafter issued thereunder are accepted and 18
19 made a part of this agreement as to Federal lands, provided such regulations 19
20 are not inconsistent with the terms of this agreement; and as to non-Federal 20
21 lands, the oil and gas operating regulations in effect as of the effective date 21
22 hereof governing drilling and producing operations, not inconsistent with the 22
23 terms hereof or the laws of the State in which the non-Federal land is located, 23
24 are hereby accepted and made a part of this agreement. 24

25 2. UNIT AREA. The area specified on the map attached hereto marked Ex- 25
26 hibit A is hereby designated and recognized as constituting the unit area, con- 26
27 taining 6,418.64 acres, more or less. 27

28 Exhibit A shows, in addition to the boundary of the unit area, the boun- 28
29 daries and identity of tracts and leases in said area to the extent known to 29
30 the Unit Operator. Exhibit B attached hereto is a schedule showing to the 30
31 extent known to the Unit Operator the acreage, percentage, and kind of owner- 31
32 ship of oil and gas interests in all land in the unit area. However, nothing 32
33 herein or in said schedule or map shall be construed as a representation by 33
34 any party hereto as to the ownership of any interest other than such interest 34

1 or interests as are shown in said map or schedule as owned by such party. Ex- 1
2 hibits A and B shall be revised by the Unit Operator whenever changes in the 2
3 unit area render such revision necessary, or when requested by the Oil and Gas 3
4 Supervisor, hereinafter referred to as "Supervisor" and not less than six 4
5 copies of the revised exhibits shall be filed with the Supervisor, and two 5
6 copies each with the Commissioner of Public Lands of the State of New Mexico, 6
7 hereinafter referred to as the "Commissioner", and the Oil Conservation Commis- 7
8 sion, hereinafter referred to as "Commission". 8

9 The above-described unit area shall when practicable be expanded to in- 9
10 clude therein any additional tract or tracts regarded as reasonably necessary 10
11 or advisable for the purposes of this agreement, or shall be contracted to ex- 11
12 clude lands not within any participating area whenever such expansion or con- 12
13 traction is necessary or advisable to conform with the purposes of this agree- 13
14 ment. Such expansion or contraction shall be effected in the following manner: 14

15 (a) Unit Operator, on its own motion or on demand of the Director of the 15
16 Geological Survey, hereinafter referred to as "Director", or on demand of the 16
17 Commissioner after preliminary concurrence by the Director, shall prepare a 17
18 notice of proposed expansion or contraction describing the contemplated changes 18
19 in the boundaries of the unit area, the reasons therefor, and the proposed ef- 19
20 fective date thereof, preferably the first day of a month subsequent to the 20
21 date of notice. 21

22 (b) Said notice shall be delivered to the Supervisor and the Commissioner 22
23 and copies thereof mailed to the last known address of each working interest 23
24 owner, lessee, and lessor whose interests are affected, advising that 30 days 24
25 will be allowed for submission to the Unit Operator of any objections. 25

26 (c) Upon expiration of the 30-day period provided in the preceding item 26
27 (b) hereof, Unit Operator shall file with the Supervisor and the Commissioner 27
28 evidence of mailing of the notice of expansion or contraction and a copy of 28
29 any objections thereto which have been filed with the Unit Operator, together 29
30 with an application in sufficient number, for approval of such expansion or 30
31 contraction and with appropriate joinders. 31

32 (d) After due consideration of all pertinent information, the expansion 32
33 or contraction shall, upon approval by the Director and the Commissioner, be- 33
34 come effective as of the date prescribed in the notice thereof. 34

1 (e) All legal subdivisions of unitized lands (i.e., 40 acres by Govern- 1
2 ment survey or its nearest lot or tract equivalent in instances of irregular 2
3 surveys, however, unusually large lots or tracts shall be considered in mul- 3
4 tiples of 40 acres, or the nearest aliquot equivalent thereof, for the purpose 4
5 of elimination under this subsection), no parts of which are entitled to be in 5
6 a participating area within 5 years commencing the first day of the month fol- 6
7 lowing the effective date of the first initial participating area established 7
8 under this unit agreement, shall be eliminated automatically from this agree- 8
9 ment, effective as of the first day thereafter, and such lands shall no longer 9
10 be a part of the unit area and shall no longer be subject to this agreement, 10
11 unless at the expiration of said 5-year period diligent drilling operations are 11
12 in progress on unitized lands not entitled to participation, in which event all 12
13 such lands shall remain subject hereto for so long as such drilling operations 13
14 are continued diligently, with not more than 90 days' time elapsing between the 14
15 completion of one such well and the commencement of the next such well, except 15
16 that the time allowed between such wells shall not expire earlier than 30 days 16
17 after the expiration of any period of time during which drilling operations are 17
18 prevented by a matter beyond the reasonable control of unit operator as set 18
19 forth in the section hereof entitled "Unavoidable Delay"; provided that all 19
20 legal subdivisions of lands not in a participating area and not entitled to be- 20
21 come participating under the applicable provisions of this agreement within 10 21
22 years after said first day of the month following the effective date of said 22
23 first initial participating area shall be eliminated as above specified. De- 23
24 termination of creditable "Unavoidable Delay" time shall be made by unit op- 24
25 erator and subject to approval of the Director and the Commissioner. Elimina- 25
26 tion taking place after the completion of a well that has deferred elimination 26
27 shall be effective on the first day after the time allowed to commence the next 27
28 well. The unit operator shall, within 90 days after the effective date of any 28
29 elimination hereunder, describe the area so eliminated to the satisfaction of 29
30 the Director and the Commissioner and promptly notify all parties in interest. 30
31 If conditions warrant extension of the 10-year period specified in this 31
32 subsection 2(e), a single extension of not to exceed 2 years may be accomplished 32
33 by consent of the owners of 90% of the current unitized working interests and 33
34 60% of the current unitized basic royalty interests (exclusive of the basic 34
35 royalty interests of the United States), on a total-nonparticipating-acreage 35
36 basis, respectively, with approval of the Director and the Commissioner, pro- 36

1 vided such extension application is submitted to the Director and the Commis 1
2 sioner not later than 60 days prior to the expiration of said 10-year period. 2

3 Any expansion of the unit area pursuant to this section which embraces 3
4 lands theretofore eliminated pursuant to this subsection 2(e) shall not be 4
5 considered automatic commitment or recommitment of such lands. 5

6 3. UNITIZED LAND AND UNITIZED SUBSTANCES. All land committed to this 6
7 agreement shall constitute land referred to herein as "unitized land" or "land 7
8 subject to this agreement". All oil and gas in any and all formations of the 8
9 unitized land are unitized under the terms of this agreement and herein are 9
10 called "unitized substances". 10

11 4. UNIT OPERATOR. Pan American Petroleum Corporation is hereby designated 11
12 as Unit Operator and by execution hereof as Unit Operator agrees and consents to 12
13 accept the duties and obligations of Unit Operator for the discovery, develop- 13
14 ment, and production of unitized substances as herein provided. Whenever refer- 14
15 ence is made herein to the Unit Operator, such reference means the Unit Operator 15
16 acting in that capacity and not as an owner of interest in unitized substances, 16
17 and the term "working interest owner" when used herein shall include or refer 17
18 to Unit Operator as the owner of a working interest when such an interest is 18
19 owned by it. 19

20 5. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the 20
21 right to resign at any time prior to the establishment of a participating area 21
22 or areas hereunder, but such resignation shall not become effective so as to re- 22
23 lease Unit Operator from the duties and obligations of Unit Operator and ter- 23
24minate Unit Operator's rights as such for a period of 6 months after notice of 24
25 intention to resign has been served by Unit Operator on all working interest 25
26 owners, the Director and the Commissioner, and until all wells then drilled 26
27 hereunder are placed in a satisfactory condition for suspension or abandonment, 27
28 whichever is required by the Supervisor, unless a new Unit Operator shall have 28
29 been selected and approved and shall have taken over and assumed the duties 29
30 and obligations of Unit Operator prior to the expiration of said period. 30

31 Unit Operator shall have the right to resign in like manner and subject to 31
32 like limitations as above provided at any time a participating area established 32
33 hereunder is in existence, but, in all instances of resignation or removal, un- 33
34 til a successor unit operator is selected and approved as hereinafter provided, 34
35 the working interest owners shall be jointly responsible for performance of the 35

1 duties of unit operator, and shall not later than 30 days before such resigna- 1
2 tion or removal becomes effective appoint a common agent to represent them in 2
3 any action to be taken hereunder. 3

4 The resignation of Unit Operator shall not release Unit Operator from any 4
5 liability for any default by it hereunder occurring prior to the effective date 5
6 of its resignation. 6

7 The Unit Operator may, upon default or failure in the performance of its 7
8 duties or obligations hereunder, be subject to removal by the same percentage 8
9 vote of the owners of working interests determined in like manner as herein pro- 9
10 vided for the selection of a new Unit Operator. Such removal shall be effective 10
11 upon notice thereof to the Director and the Commissioner. 11

12 The resignation or removal of Unit Operator under this agreement shall not 12
13 terminate its right, title, or interest as the owner of a working interest or 13
14 other interest in unitized substances, but upon the resignation or removal of 14
15 Unit Operator becoming effective, such Unit Operator shall deliver possession of 15
16 all equipment, materials, and appurtenances used in conducting the unit opera- 16
17 tions and owned by the working interest owners to the new duly qualified succes- 17
18 sor Unit Operator or to the owners thereof if no such new Unit Operator is 18
19 elected, to be used for the purpose of conducting unit operations hereunder. 19
20 Nothing herein shall be construed as authorizing removal of any material, equip- 20
21 ment and appurtenances needed for the preservation of any wells. 21

22 6. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender his 22
23 or its resignation as Unit Operator or shall be removed as hereinabove pro- 23
24 vided, or a change of Unit Operator is negotiated by working interest owners, 24
25 the owners of the working interests in the participating area or areas accord- 25
26 ing to their respective acreage interests in such participating area or areas, 26
27 or, until a participating area shall have been established, the owners of the 27
28 working interests according to their respective acreage interests in all uni- 28
29 tized land, shall by majority vote select a successor Unit Operator: Provided, 29
30 that, if a majority but less than 75 per cent of the working interests quali- 30
31 fied to vote are owned by one party to this agreement, a concurring vote of 31
32 one or more additional working interest owners shall be required to select a 32
33 new operator. Such selection shall not become effective until 33

34 (a) a Unit Operator so selected shall accept in writing the duties and 34
25 responsibilities of Unit Operator, and 35

1 (b) the selection shall have been filed with the Supervisor and approved 1
2 by the Commissioner. If no successor Unit Operator is selected and qualified as 2
3 herein provided, the Director at his election may declare this unit agreement 3
4 terminated. 4

5 7. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. If the Unit Opera- 5
6 tor is not the sole owner of working interests, costs and expenses incurred by 6
7 Unit Operator in conducting unit operations hereunder shall be paid and appor- 7
8 tioned among and borne by the owners of working interests, all in accordance 8
9 with the agreement or agreements entered into by and between the Unit Operator 9
10 and the owners or working interests, whether one or more, separately or collec- 10
11 tively. Any agreement or agreements entered into between the working interest 11
12 owners and the Unit Operator as provided in this section, whether one or more, 12
13 are herein referred to as the "unit operating agreement". Such unit operating 13
14 agreement shall also provide the manner in which the working interest owners 14
15 shall be entitled to receive their respective proportionate and allocated share 15
16 of the benefits accruing hereto in conformity with their underlying operating 16
17 agreements, leases, or other independent contracts, and such other rights and 17
18 obligations as between Unit Operator and the working interest owners as may be 18
19 agreed upon by Unit Operator and the working interest owners; however, no such 19
20 unit operating agreement shall be deemed either to modify any of the terms and 20
21 conditions of this unit agreement or to relieve the Unit Operator of any right 21
22 or obligation established under this unit agreement, and in case of any in- 22
23 consistency or conflict between the unit agreement and the unit operating 23
24 agreement, this unit agreement shall prevail. Three true copies of any unit 24
25 operating agreement executed pursuant to this section should be filed with the 25
26 Supervisor and two true copies with the Commissioner, prior to approval of 26
27 this unit agreement. 27

28 8. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise speci- 28
29 fically provided herein, the exclusive right, privilege, and duty of exercis- 29
30 ing any and all rights of the parties hereto which are necessary or conven- 30
31 ient for prospecting for, producing, storing, allocating, and distributing the 31
32 unitized substances are hereby delegated to and shall be exercised by the Unit 32
33 Operator as herein provided. Acceptable evidence of title to said rights shall 33
34 be deposited with said Unit Operator and, together with this agreement, shall 34
35 constitute and define the rights, privileges, and obligations of Unit Operator. 35

1 Nothing herein, however, shall be construed to transfer title to any land or to 1
2 any lease or operating agreement, it being understood that under this agreement 2
3 the Unit Operator, in its capacity as Unit Operator, shall exercise the rights 3
4 of possession and use vested in the parties hereto only for the purposes herein 4
5 specified. 5

6 9. DRILLING TO DISCOVERY. Within 6 months after the effective date here- 6
7 of, the Unit Operator shall begin to drill an adequate test well at a location 7
8 approved by the Supervisor if such location is upon lands of the United States, 8
9 and if upon State or patented lands, such location shall be approved by the 9
10 Commission and the Commissioner, unless on such effective date a well is being 10
11 drilled conformably with the terms hereof, and thereafter continue such drill- 11
12 ing diligently until the Mississippian formation is encountered or until at 12
13 a lesser depth unitized substances shall be discovered which can be produced 13
14 in paying quantities (to-wit: quantities sufficient to repay the costs of drill- 14
15 ing, and producing operations, with a reasonable profit) or the Unit Operator 15
16 shall at any time establish to the satisfaction of the Supervisor as to wells 16
17 on Federal lands, or to the Commission and the Commissioner as to wells on 17
18 State or patented lands, that further drilling of said well would be unwarrant- 18
19 ed or impracticable, provided, however, that Unit Operator shall not in any 19
20 event be required to drill said well to a depth in excess of 9,800 feet. Un- 20
21 til the discovery of a deposit of unitized substances capable of being produced 21
22 in paying quantities, the Unit Operator shall continue drilling diligently one 22
23 well at a time, allowing not more than 6 months between the completion of one 23
24 well and the beginning of the next well, at locations approved by the Super- 24
25 visor if such locations are on lands of the United States, and if upon State 25
26 or patented lands at locations approved by the Commission and the Commissioner, 26
27 until a well capable of producing unitized substances in paying quantities is 27
28 completed to the satisfaction of said Supervisor and Commissioner or until 28
29 it is reasonably proved that the unitized land is incapable of producing uni- 29
30 tized substances in paying quantities in the formations drilled hereunder. 30
31 Nothing in this section shall be deemed to limit the right of the Unit Opera- 31
32 tor to resign as provided in Section 5 hereof, or as requiring Unit Operator to 32
33 commence or continue any drilling during the period pending such resignation 33
34 becoming effective in order to comply with the requirements of this section. 34
35 The Director and the Commissioner may modify the drilling requirements of this 35

1 section by granting reasonable extensions of time when, in their opinion, such 1
2 action is warranted. 2

3 Upon failure to comply with the drilling provisions of this section, the 3
4 Director and the Commissioner may, after reasonable notice to the Unit Operator, 4
5 and each working interest owner, lessee, and lessor at their last known address- 5
6 ses, declare this Unit Agreement terminated. 6

7 10. PLAN OF FURTHER DEVELOPMENT AND OPERATION: Within 6 months after com- 7
8 pletion of a well capable of producing unitized substances in paying quantities, 8
9 the Unit Operator shall submit for the approval of the Supervisor, the Commis- 9
10 sioner and the Commission an acceptable plan of development and operation for 10
11 the unitized land which, when approved by the Supervisor, the Commissioner and 11
12 the Commission, shall constitute the further drilling and operating obligations 12
13 of the Unit Operator under this agreement for the period specified therein. 13
14 Thereafter, from time to time before the expiration of any existing plan, the 14
15 Unit Operator shall submit for the approval of the Supervisor, the Commissioner 15
16 and the Commission a plan for an additional specified period for the development 16
17 and operation of the unitized land. 17

18 Any plan submitted pursuant to this section shall provide for the explora- 18
19 tion of the unitized area and for the diligent drilling necessary for deter- 19
20 mination of the area or areas thereof capable of producing unitized substances 20
21 in paying quantities in each and every productive formation and shall be as com- 21
22 plete and adequate as the Supervisor, the Commissioner and the Commission may 22
23 determine to be necessary for timely development and proper conservation of the 23
24 oil and gas resources of the unitized area and shall 24

25 (a) specify the number and locations of any wells to be drilled and the 25
26 proposed order and time for such drilling; and 26

27 (b) to the extent practicable specify the operating practices regarded 27
28 as necessary and advisable for proper conservation of natural resources. 28

29 Separate plans may be submitted for separate productive zones, subject to the 29
30 approval of the Supervisor, the Commissioner and the Commission. 30

31 Plans shall be modified or supplemented when necessary to meet changed 31
32 conditions or to protect the interests of all parties to this agreement. 32

33 Reasonable diligence shall be exercised in complying with the obligations of 33
34 the approved plan of development. The Supervisor and the Commissioner are 34

1 authorized to grant a reasonable extension of the 6-month period herein pre- 1
2 scribed for submission of an initial plan of development where such action is 2
3 justified because of unusual conditions or circumstances. After completion 3
4 hereunder of a well capable of producing any unitized substance in paying quan- 4
5 tities, no further wells, except such as may be necessary to afford protection 5
6 against operations not under this agreement or such as may be specifically ap- 6
7 proved by the Supervisor and the Commissioner, shall be drilled except in ac- 7
8 cordance with a plan of development approved as herein provided. 8

9 11. PARTICIPATION AFTER DISCOVERY. Upon completion of a well capable of 9
10 producing unitized substances in paying quantities or as soon thereafter as re- 10
11 quired by the Supervisor and the Commissioner, the Unit Operator shall submit 11
12 for approval by the Director, the Commissioner and the Commission, a schedule 12
13 based on subdivisions of the public-land survey or aliquot parts thereof, of 13
14 all unitized land then regarded as reasonably proved to be productive of uni- 14
15 tized substances in paying quantities; all lands in said schedule on approval 15
16 of the Director, the Commissioner and the Commission to constitute a partici- 16
17 pating area, effective as of the date of completion of such well or the effec- 17
18 tive date of the unit agreement, whichever is later. The acreages of both 18
19 Federal and non-Federal lands shall be based upon appropriate computations from 19
20 the courses and distances shown on the last approved public-land survey as of 20
21 the effective date of the initial participating area. Said schedule also shall 21
22 set forth the percentage of unitized substances to be allocated as herein pro- 22
23 vided to each unitized tract in the participating area so established, and 23
24 shall govern the allocation of production from and after the date the parti- 24
25 cipating area becomes effective. A separate participating area shall be es- 25
26 tablished in like manner for each separate pool or deposit of unitized sub- 26
27 stances or for any group thereof produced as a single pool or zone, and any 27
28 two or more participating areas so established may be combined into one with 28
29 the consent of the owners of all working interests in the lands within the 29
30 participating areas so to be combined, on approval of the Director, the Com- 30
31 missioner and the Commission. The participating area or areas so established 31
32 shall be revised from time to time, subject to like approval, whenever such 32
33 action appears proper as a result of further drilling operations or otherwise 33
34 to include additional land then regarded as reasonably proved to be produc- 34
35 tive in paying quantities, or to exclude land then regarded as reasonably 35

1 proved not to be productive in paying quantities and the percentage of alloca- 1
2 tion shall also be revised accordingly. The effective date of any revision 2
3 shall be the first of the month in which is obtained the knowledge or informa- 3
4 tion on which such revision is predicated, provided, however, that a more ap- 4
5 propriate effective date may be used if justified by the Unit Operator and ap- 5
6 proved by the Director and the Commissioner and the Commission. No land shall 6
7 be excluded from a participating area on account of depletion of the unitized 7
8 substances. 8

9 It is the intent of this section that a participating area shall represent 9
10 the area known or reasonably estimated to be productive in paying quantities; 10
11 but, regardless of any revision of the participating area, nothing herein con- 11
12 tained shall be construed as requiring any retroactive adjustment for produc- 12
13 tion obtained prior to the effective date of the revision of the participating 13
14 area. 14

15 In the absence of agreement at any time between the Unit Operator and the 15
16 Director, the Commissioner and the Commission as to the proper definition or re- 16
17 definition of a participating area, or until a participating area has, or areas 17
18 have, been established as provided herein, the portion of all payments affected 18
19 thereby may be impounded in a manner mutually acceptable to the owners of work- 19
20 ing interests, except royalties due the United States and the State of New 20
21 Mexico, which shall be determined by the Supervisor and the Commissioner, re- 21
22 spectively, and the amount thereof deposited, as directed by the Supervisor and 22
23 the Commissioner, respectively, to be held as unearned money until a partici- 23
24 pating area is finally approved and then applied as earned or returned in ac- 24
25 cordance with a determination of the sum due as Federal and State royalty on 25
26 the basis of such approved participating area. 26

27 Whenever it is determined, subject to the approval of the Supervisor, as 27
28 to the wells on Federal lands, the Commissioner as to wells on State lands, 28
29 and the Commission as to wells on patented lands, that a well drilled under 29
30 this agreement is not capable of production in paying quantities and inclusion 30
31 of the land on which it is situated in a participating area is unwarranted, 31
32 production from such well shall, for the purposes of settlement among all par- 32
33 ties other than working interest owners, be allocated to the land on which the 33
34 well is located so long as such land is not within a participating area es- 34
35 tablished for the pool or deposit from which such production is obtained. 35

1 Settlement for working interest benefits from such a well shall be made as pro- 1
2 vided in the unit operating agreement. 2

3 12. ALLOCATION OF PRODUCTION. All unitized substances produced from each 3
4 participating area established under this agreement, except any part thereof 4
5 used in conformity with good operating practices within the unitized area for 5
6 drilling, operating, camp and other production or development purposes, for re- 6
7 pressuring or recycling in accordance with a plan of development approved by 7
8 the Supervisor, the Commissioner and the Commission, or unavoidably lost, shall 8
9 be deemed to be produced equally on an acreage basis from the several tracts of 9
10 unitized land of the participating area established for such production and, for 10
11 the purpose of determining any benefits accruing under this agreement, each such 11
12 tract of unitized land shall have allocated to it such percentage of said produc- 12
13 tion as the number of acres of such tract included in said participating area 13
14 bears to the total acres of unitized land in said participating area, except that 14
15 allocation of production hereunder for purposes other than for settlement of the 15
16 royalty, overriding royalty, or payment out of production obligations of the re- 16
17 spective working interest owners, shall be on the basis prescribed in the unit 17
18 operating agreement whether in conformity with the basis of allocation herein 18
19 set forth or otherwise. It is hereby agreed that production of unitized sub- 19
20 stances from a participating area shall be allocated as provided herein regard- 20
21 less of whether any wells are drilled on any particular part or tract of said 21
22 participating area. If any gas produced from one participating area is used 22
23 for repressuring or recycling purposes in another participating area, the first 23
24 gas withdrawn from such last-mentioned participating area for sale during the 24
25 life of this agreement shall be considered to be the gas so transferred until 25
26 an amount equal to that transferred shall be so produced for sale and such gas 26
27 shall be allocated to the participating area from which initially produced as 27
28 constituted at the time of such final production. 28

29 13. DEVELOPMENT OR OPERATION OF NON-PARTICIPATING LAND OR FORMATIONS. 29
30 Any party hereto owning or controlling the working interest in any unitized 30
31 land having thereon a regular well location may with the approval of the 31
32 Supervisor, the Commissioner or the Commission, at such party's sole risk, 32
33 costs, and expense, drill a well to test any formation for which a partici- 33
34 pating area has not been established or to test any formation for which a 34

1 participating area has been established if such location is not within said 1
2 participating area, unless within 90 days of receipt of notice from said party 2
3 of his intention to drill the well the Unit Operator elects and commences to 3
4 drill such a well in like manner as other wells are drilled by the Unit Opera- 4
5 tor under this agreement. 5

6 If any well drilled as aforesaid by a working interest owner results in 6
7 production such that the land upon which it is situated may properly be in- 7
8 cluded in a participating area, such participating area shall be established 8
9 or enlarged as provided in this agreement and the well shall thereafter be 9
10 operated by the Unit Operator in accordance with the terms of this agreement 10
11 and the unit operating agreement. 11

12 If any well drilled as aforesaid by a working interest owner obtains pro- 12
13 duction in quantities insufficient to justify the inclusion in a participating 13
14 area of the land upon which such well is situated, such well may be operated 14
15 and produced by the party drilling the same subject to the conservation re- 15
16 quirements of this agreement. The royalties in amount or value of production 16
17 from any such well shall be paid as specified in the underlying lease and agree- 17
18 ments affected. 18

19 14. ROYALTY SETTLEMENT. The United States and the State of New Mexico and 19
20 all royalty owners who, under existing contract, are entitled to take in kind 20
21 a share of the substances now unitized hereunder produced from any tract, shall 21
22 hereafter be entitled to the right to take in kind their share of the unitized 22
23 substances allocated to such tract, and Unit Operator, or in case of the opera- 23
24 tion of a well by a working interest owner as herein in special cases provided 24
25 for, such working interest owner, shall make deliveries of such royalty share 25
26 taken in kind in conformity with the applicable contracts, laws, and regula- 26
27 tions. Settlement for royalty interest not taken in kind shall be made by 27
28 working interest owners responsible therefor under existing contracts, laws 28
29 and regulations on or before the last day of each month for unitized sub- 29
30 stances produced during the preceding calendar month; provided, however, that 30
31 nothing herein contained shall operate to relieve the lessees of any land 31
32 from their respective lease obligations for the payment of any royalties due 32
33 under their leases. 33

34 If gas obtained from lands not subject to this agreement is introduced 34

1 into any participating area hereunder, for use in repressuring, stimulation of 1
2 production, or increasing ultimate recovery, which shall be in conformity with 2
3 a plan first approved by the Supervisor and the Commissioner, a like amount of 3
4 gas, after settlement as herein provided for any gas transferred from any ot- 4
5 her participating area and with due allowance for loss or depletion from any 5
6 cause, may be withdrawn from the formation into which the gas was introduced, 6
7 royalty free as to dry gas, but not as to the products extracted therefrom; pro-7
8 vided that such withdrawal shall be at such time as may be provided in the plan 8
9 of operations or as may otherwise be consented to by the Supervisor, the Com- 9
10 missioner and the Commission as conforming to good petroleum engineering prac- 10
11 tice; and provided further, that such right of withdrawal shall terminate on 11
12 the termination of this unit agreement. 12

13 Royalty due the United States shall be computed as provided in the opera- 13
14 ting regulations and paid in value or delivered in kind as to all unitized sub- 14
15 stances on the basis of the amounts thereof allocated to unitized Federal land 15
16 as provided herein at the rates specified in the respective Federal leases, 16
17 or at such lower rate or rates as may be authorized by law or regulation; pro- 17
18 vided, that for leases on which the royalty rate depends on the daily average 18
19 production per well, said average production shall be determined in accordance 19
20 with the operating regulations as though each participating area were a single 20
21 consolidated lease. 21

22 15. RENTAL SETTLEMENT. Rental or minimum royalties due on leases con- 22
23 mitted hereto shall be paid by working interest owners responsible therefor 23
24 under existing contracts, laws, and regulations, provided that nothing herein 24
25 contained shall operate to relieve the lessees of any land from their respec- 25
26 tive lease obligations for the payment of any rental or minimum royalty in 26
27 lieu thereof due under their leases. Rental or minimum royalty for lands of 27
28 the United States subject to this agreement shall be paid at the rate speci- 28
29 fied in the respective leases from the United States unless such rental or 29
30 minimum royalty is waived, suspended, or reduced by law or by approval of the 30
31 Secretary or his duly authorized representative. Rentals on State of New 31
32 Mexico lands subject to this agreement shall be paid at the rates specified 32
33 in the respective leases, or may be reduced and suspended upon the order of 33
34 the Commissioner of Public Lands of the State of New Mexico pursuant to ap- 34
35 plicable laws and regulations. 35

1 With respect to any lease on non-Federal land containing provisions which 1
2 would terminate such lease unless drilling operations were within the time 2
3 therein specified commenced upon the land covered thereby or rentals paid for 3
4 the privilege of deferring such drilling operations, the rentals required 4
5 thereby shall, notwithstanding any other provision of this agreement, be deemed 5
6 to accrue and become payable during the term thereof as extended by this agree- 6
7 ment and until the required drilling operations are commenced upon the land 7
8 covered thereby or some portion of such land is included within a participating 8
9 area. 9

10 16. CONSERVATION. Operations hereunder and production of unitized sub- 10
11 stances shall be conducted to provide for the most economical and efficient 11
12 recovery of said substances without waste, as defined by or pursuant to State 12
13 or Federal law or regulation. 13

14 17. DRAINAGE. The Unit Operator shall take appropriate and adequate 14
15 measures to prevent drainage of unitized substances from unitized land by wells 15
16 on land not subject to this agreement, or, with prior consent of the Director 16
17 or the Commissioner, pursuant to applicable regulations pay a fair and reason- 17
18 able compensatory royalty as determined by the Supervisor or the Commissioner. 18

19 18. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions, 19
20 and provisions of all leases, subleases, and other contracts relating to ex- 20
21 ploration, drilling, development, or operation for oil or gas of lands com- 21
22 mitted to this agreement are hereby expressly modified and amended to the ex- 22
23 tent necessary to make the same conform to the provisions hereof, but other- 23
24 wise to remain in full force and effect; and the parties hereto hereby con- 24
25 sent that the Secretary and the Commissioner, respectively, shall and by their 25
26 approval hereof, or by the approval hereof by their duly authorized represen- 26
27 tatives, do hereby establish, alter, change, or revoke the drilling, pro- 27
28 ducing, rental, minimum royalty, and royalty requirements of Federal and 28
29 State leases committed hereto and the regulations in respect thereto to con- 29
30 form said requirements to the provisions of this agreement, and, without 30
31 limiting the generality of the foregoing, all leases, subleases, and con- 31
32 tracts are particularly modified in accordance with the following: 32

33 (a) The development and operation of lands subject to this agreement 33
34 under the terms hereof shall be deemed full performance of all obligations 34

1 for development and operation with respect to each and every part or separately 1
2 owned tract subject to this agreement, regardless of whether there is any de- 2
3 velopment of any particular part or tract of the unit area, notwithstanding any-3
4 thing to the contrary in any lease, operating agreement or other contract by 4
5 and between the parties hereto, or their respective predecessors in interest, 5
6 or any of them. 6

7 (b) Drilling and producing operations performed hereunder upon any tract 7
8 of unitized lands will be accepted and deemed to be performed upon and for the 8
9 benefit of each and every tract of unitized land, and no lease shall be deemed 9
10 to expire by reason of failure to drill or produce wells situated on the land 10
11 therein embraced. 11

12 (c) Suspension of drilling or producing operations on all unitized lands 12
13 pursuant to direction or consent of the Secretary or his duly authorized re- 13
14 presentative, and on all unitized lands of the State of New Mexico pursuant 14
15 to the consent of the Commissioner, or his duly recognized representative, 15
16 shall be deemed to constitute such suspension pursuant to such direction or 16
17 consent as to each and every tract of unitized land. 17

18 (d) Each lease, sublease or contract relating to the exploration, drill- 18
19 ing, development or operation for oil or gas of lands other than those of the 19
20 United States committed to this agreement, which, by its terms might expire 20
21 prior to the termination of this agreement, is hereby extended beyond any such 21
22 term so provided therein so that it shall be continued in full force and effect 22
23 for and during the term of this agreement. 23

24 (e) Any Federal lease for a fixed term of twenty (20) years or any re- 24
25 newal thereof or any part of such lease which is made subject to this agree- 25
26 ment shall continue in force beyond the term provided therein until the ter- 26
27 mination hereof. Any other Federal lease committed hereto shall continue in 27
28 force beyond the term so provided therein or by law as to the land committed 28
29 so long as such lease remains subject hereto, provided that production is had 29
30 in paying quantities under this unit agreement prior to the expiration date 30
31 of the term of such lease, or in the event actual drilling operations are 31
32 commenced on unitized land, in accordance with the provisions of this agree- 32
33 ment, prior to the end of the primary term of such lease and are being dili- 33
34 gently prosecuted at that time, such lease shall be extended for two years and 34

1 so long thereafter as oil or gas is produced in paying quantities in accordance 1
2 with the provisions of the Mineral Leasing Act Revision of 1960. 2

3 (f) Each sublease or contract relating to the operation and development 3
4 of unitized substances from lands of the United States committed to this agree- 4
5 ment, which by its terms would expire prior to the time at which the underlying 5
6 lease, as extended by the immediately preceding paragraph, will expire, is here- 6
7 by extended beyond any such term so provided therein so that it shall be con- 7
8 tinued in full force and effect for and during the term of the underlying lease 8
9 as such term is herein extended. 9

10 (g) The segregation of any Federal lease committed to this agreement is 10
11 governed by the following provision in the fourth paragraph of Sec. 17(j) of 11
12 the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 12
13 781-784): "Any (Federal) lease heretofore or hereafter committed to any such 13
14 (unit) plan embracing lands that are in part within and in part outside of the 14
15 area covered by any such plan shall be segregated into separate leases as to the 15
16 lands committed and the lands not committed as of the effective date of unitiza- 16
17 tion: Provided, however, That any such lease as to the nonunitized portion shall 17
18 continue in force and effect for the term thereof but for not less than two 18
19 years from the date of such segregation and so long thereafter as oil or gas is 19
20 produced in paying quantities." 20

21 (h) Any lease, other than a Federal lease, having only a portion of its 21
22 lands committed hereto shall be segregated as to the portion committed and the 22
23 portion not committed, and the provisions of such lease shall apply separately 23
24 to such segregated portions commencing as of the effective date hereof. In 24
25 the event any such lease provides for a lump-sum rental payment, such payment 25
26 shall be prorated between the portions so segregated in proportion to the acre- 26
27 age of the respective tracts. 27

28 19. COVENANTS RUN WITH LAND. The covenants herein shall be construed to 28
29 be covenants running with the land with respect to the interest of the parties 29
30 hereto and their successors in interest until this agreement terminates, and 30
31 any grant, transfer, or conveyance of interest in land or leases subject here- 31
32 to shall be and hereby is conditioned upon the assumption of all privileges 32
33 and obligations hereunder by the grantee, transferee, or other successor in in- 33
34 terest. No assignment or transfer of any working interest, royalty, or other 34

1 interest subject hereto shall be binding upon Unit Operator until the first day 1
2 of the calendar month after Unit Operator is furnished with the original, pho- 2
3 tostatic, or certified copy of the instrument of transfer. 3

4 20. EFFECTIVE DATE AND TERM. This agreement shall become effective upon 4
5 approval by the Secretary and the Commissioner or their duly authorized repre- 5
6 sentatives and shall terminate five (5) years from said effective date unless 6

7 (a) such date of expiration is extended by the Director and the Commis- 7
8 sioner, or 8

9 (b) it is reasonably determined prior to the expiration of the fixed 9
10 term or any extension thereof that the unitized land is incapable of pro- 10
11 duction of unitized substances in paying quantities in the formations tested 11
12 hereunder and after notice of intention to terminate the agreement on such 12
13 ground is given by the Unit Operator to all parties in interest at their last 13
14 known addresses, the agreement is terminated with the approval of the Director 14
15 and the Commissioner, or 15

16 (c) a valuable discovery of unitized substances has been made or accepted 16
17 on unitized land during said initial term or any extension thereof, in which 17
18 event the agreement shall remain in effect for such term and so long as uni- 18
19 tized substances can be produced in quantities sufficient to pay for the cost 19
20 of producing same from wells on unitized land within any participating area 20
21 established hereunder and, should production cease, so long thereafter as dili- 21
22 gent operations are in progress for the restoration of production or discovery 22
23 of new production and so long thereafter as the unitized substances so dis- 23
24 covered can be produced as aforesaid, or 24

25 (d) it is terminated as heretofore provided in this agreement. 25

26 This agreement may be terminated at any time by not less than 75 per centum, 26
27 on an acreage basis, of the owners of working interests signatory hereto, 27
28 with the approval of the Director and the Commissioner; notice of any such 28
29 approval to be given by the Unit Operator to all parties hereto. 29

30 21. RATE OF PROSPECTING, DEVELOPMENT, AND PRODUCTION. The Director is 30
31 hereby vested with authority to alter or modify from time to time in his dis- 31
32 cretion the quantity and rate of production under this agreement when such 32
33 quantity and rate is not fixed pursuant to Federal or State law or does not 33
34 conform to any state-wide voluntary conservation or allocation program, which 34

1 is established, recognized, and generally adhered to by the majority of opera- 1
2 tors in such State, such authority being hereby limited to alteration or modi- 2
3 fication in the public interest, the purpose thereof and public interest to 3
4 be served thereby to be stated in the order of alteration or modification. 4
5 Without regard to the foregoing, the Director is also hereby vested with auth- 5
6 ority to alter or modify from time to time in his discretion the rate of pros- 6
7 pecting and development and the quantity and rate of production under this 7
8 agreement when such alteration or modification is in the interest of attain- 8
9 ing the conservation objectives stated in this agreement and is not in viola- 9
10 tion of any applicable Federal or State law; provided, further, no such alter- 10
11 ation or modification shall be effective as to any land of the State of New 11
12 Mexico as to the rate of prospecting and development in the absence of the 12
13 specific written approval thereof by the Commissioner and as to lands of the 13
14 State of New Mexico or privately owned lands subject to this agreement as to 14
15 the quantity and rate of production in the absence of specific written ap- 15
16 proval thereof by the Commissioner. 16

17 Powers in this section vested in the Director shall only be exercised af- 17
18 ter notice to Unit Operator and opportunity for hearing to be held not less 18
19 than 15 days from notice. 19

20 22. APPEARANCES. Unit Operator shall, after notice to other parties af- 20
21 fected, have the right to appear for and on behalf of any and all interests 21
22 affected hereby before the Department of the Interior and to appeal from cr- 22
23 ders issued under the regulations of said Department or to apply for relief 23
24 from any of said regulations or in any proceedings relative to operations be- 24
25 fore the Department of the Interior or any other legally constituted author- 25
26 ity; provided, however, that any other interested party shall also have the 26
27 right at his own expense to be heard in any such proceeding. 27

28 23. NOTICES. All notices, demands or statements required hereunder to 28
29 be given or rendered to the parties hereto shall be deemed fully given if 29
30 given in writing and personally delivered to the party or sent by postpaid 30
31 registered mail, addressed to such party or parties at their respective ad- 31
32 dresses set forth in connection with the signatures hereto or to the ratifi- 32
33 cation or consent hereof or to such other address as any such party may have 33
34 furnished in writing to party sending the notice, demand or statement. 34

1 24. NO WAIVER OF CERTAIN RIGHTS. Nothing in this agreement contained shall 1
2 be construed as a waiver by any party hereto of the right to assert any legal 2
3 or constitutional right or defense as to the validity or invalidity of any law 3
4 of the State wherein said unitized lands are located, or of the United States, 4
5 or regulations issued thereunder in any way affecting such party, or as a 5
6 waiver by any such party of any right beyond his or its authority to waive. 6

7 25. UNAVOIDABLE DELAY. All obligations under this agreement requiring 7
8 the Unit Operator to commence or continue drilling or to operate on or produce 8
9 unitized substances from any of the lands covered by this agreement shall be 9
10 suspended while, but only so long as, the Unit Operator despite the exercise 10
11 of due care and diligence is prevented from complying with such obligations, in 11
12 whole or in part, by strikes, acts of God, Federal, State, or municipal law 12
13 or agencies, unavoidable accidents, uncontrollable delays in transportation, 13
14 inability to obtain necessary materials in open market, or other matters be- 14
15 yond the reasonable control of the Unit Operator whether similar to matters 15
16 herein enumerated or not. 16

17 26. NONDISCRIMINATION. In connection with the performance of work under 17
18 this agreement, the operator agrees to comply with all of the provisions of 18
19 Section 202(1) to (7), inclusive, of Executive Order 11246 (30 F.R. 2319), 19
20 which are hereby incorporated by reference in this agreement. 20

21 27. LOSS OF TITLE. In the event title to any tract of unitized land shall 21
22 fail and the true owner cannot be induced to join in this unit agreement, such 22
23 tract shall be automatically regarded as not committed hereto and there shall 23
24 be such readjustment of future costs and benefits as may be required on ac- 24
25 count of the loss of such title. In the event of a dispute as to title as 25
26 to any royalty, working interest, or other interests subject thereto, payment 26
27 or delivery on account thereof may be withheld without liability for interest 27
28 until the dispute is finally settled; provided, that, as to Federal and State 28
29 land or leases, no payments of funds due the United States or the State of 29
30 New Mexico should be withheld, but such funds shall be deposited as directed 30
31 by the Supervisor and the Commissioner, respectively, to be held as unearned 31
32 money pending final settlement of the title dispute, and then applied as 32
33 earned or returned in accordance with such final settlement. 33

34 Unit Operator as such is relieved from any responsibility for any de- 34
35 fect or failure of any title hereunder. 35

1 28. NON-JOINDER AND SUBSEQUENT JOINDER. If the owner of any substantial 1
2 interest in a tract within the unit area fails or refuses to subscribe or con- 2
3 sent to this agreement, the owner of the working interest in that tract may 3
4 withdraw said tract from this agreement by written notice to the Director, the 4
5 Commissioner and the Unit Operator prior to the approval of this agreement by 5
6 the Director and the Commissioner. Any oil or gas interests in lands within 6
7 the unit area not committed hereto prior to submission of this agreement for 7
8 final approval may thereafter be committed hereto by the owner or owners there- 8
9 of subscribing or consenting to this agreement, and, if the interest is a work- 9
10 ing interest, by the owner of such interest also subscribing to the unit operat- 10
11 ing agreement. After operations are commenced hereunder, the right of subse- 11
12 quent joinder, as provided in this section, by a working interest owner is sub- 12
13 ject to such requirements or approvals, if any, pertaining to such joinder, as 13
14 may be provided for in the unit operating agreement. After final approval 14
15 hereof joinder by a non-working interest owner must be consented to in writing 15
16 by the working interest owner committed hereto and responsible for the payment 16
17 of any benefits that may accrue hereunder in behalf of such non-working interest. 17
18 Joinder by any owner of a non-working interest, at any time, must be accompanied 18
19 by appropriate joinder by the owner of the corresponding working interest in 19
20 order for the interest to be regarded as committed hereto. Joinder to the unit 20
21 agreement by a working-interest owner, at any time, must be accompanied by ap- 21
22 propriate joinder to the unit operating agreement, if more than one committed 22
23 working-interest owner is involved, in order for the interest to be regarded 23
24 as committed to this unit agreement. Except as may otherwise herein be pro- 24
25 vided subsequent joinders to this agreement shall be effective as of the first 25
26 day of the month following the filing with the Supervisor and the Commissioner 26
27 of duly executed counterparts of all or any papers necessary to establish ef- 27
28 fective commitment of any tract to this agreement unless objection to such 28
29 joinder is duly made within 60 days by the Director or the Commissioner. 29

30 29. COUNTERPARTS. This agreement may be executed in any number of 30
31 counterparts no one of which needs to be executed by all parties or may be 31
32 ratified or consented to by separate instrument in writing specifically re- 32
33 ferring hereto and shall be binding upon all those parties who have executed 33
34 such a counterpart, ratification, or consent hereto with the same force and 34
35 effect as if all such parties had signed the same document and regardless of 35

1 whether or not it is executed by all other parties owning or claiming an in- 1
2 terest in the lands within the above-described unit area. 2

3 30. SURRENDER. Nothing in this agreement shall prohibit the exercise by 3
4 any working interest owner of the right to surrender vested in such party in 4
5 any lease, sub-lease, or operating agreement as to all or any part of the lands 5
6 covered thereby, provided that each party who will or might acquire such work- 6
7 ing interest by such surrender or by forfeiture as hereafter set forth, is 7
8 bound by the terms of this agreement. 8

9 If as a result of any such surrender, the working interest rights as to 9
10 such lands become vested in any party other than the fee owner of the uni- 10
11 tized substances, said party shall forfeit such rights and no further bene- 11
12 fits from operation hereunder as to said land shall accrue to such party, 12
13 unless within ninety (90) days thereafter said party shall execute this agree- 13
14 ment and the unit operating agreement as to the working interest acquired 14
15 through such surrender, effective as though such land had remained continuously 15
16 subject to this agreement and the unit operating agreement. And in the event 16
17 such agreements are not so executed, the party next in the chain of title shall 17
18 be and become the owner of such working interest at the end of such ninety (90) 18
19 day period, with the same force and effect as though such working interest had 19
20 been surrendered to such party. 20

21 If as the result of any such surrender or forfeiture the working interest 21
22 rights as to such lands become vested in the fee owner of the unitized sub- 22
23 stances, such owner may: 23

24 (1) Execute this agreement and the unit operating agreement as a 24
25 working interest owner, effective as though such land had remained contin- 25
26 uously subject to this agreement and the unit operating agreement. 26

27 (2) Again lease such lands but only under the condition that the holder 27
28 of such lease shall within thirty (30) days after such lands are so leased 28
29 execute this agreement and the unit operating agreement as to each partici- 29
30 pating area theretofore established hereunder, effective as though such land 30
31 had remained continuously subject to this agreement and the unit operating 31
32 agreement. 32

33 (3) Operate or provide for the operation of such land independently of 33
34 this agreement as to any part thereof or any oil or gas deposits therein not 34

1 then included within a participating area. 1

2 If the fee owner of the unitized substances does not execute this agree- 2
3 ment and the unit operating agreement as a working interest owner or again 3
4 lease such lands as above provided with respect to each existing participa- 4
5 ting area, within six (6) months after any such surrender or forfeiture, such 5
6 fee owner shall be deemed to have waived the right to execute the unit operat- 6
7 ing agreement or lease such lands as to each such participating area, and to 7
8 have agreed, in consideration for the compensation hereinafter provided, that 8
9 operations hereunder as to any such participating area or areas shall not be 9
10 affected by such surrender. 10

11 For any period the working interest in any lands are not expressly com- 11
12 mitted to the unit operating agreement as the result of any such surrender or 12
13 forfeiture, the benefits and obligations of operations accruing to such lands 13
14 under this agreement and the unit operating agreement shall be shared by the 14
15 remaining owners of unitized working interests in accordance with their respec- 15
16 tive participating working interest ownerships in any such participating area or 16
17 areas, and such owners of working interests shall compensate the fee owner of 17
18 unitized substances in such lands by paying sums equal to the rentals, minimum 18
19 royalties, and royalties applicable to such lands under the lease in effect 19
20 when the lands were unitized, as to such participating area or areas. 20

21 Upon commitment of a working interest to this agreement and the unit op- 21
22 erating agreement as provided in this section, an appropriate accounting and 22
23 settlement shall be made, to reflect the retroactive effect of the commit- 23
24 ment, for all benefits accruing to or payments and expenditures made or in- 24
25 curred on behalf of such surrendered working interest during the period be- 25
26 tween the date of surrender and the date of recommitment, and payment of any 26
27 moneys found to be owing by such an accounting shall be made as between the 27
28 parties then signatory to the unit operating agreement and this agreement 28
29 within thirty (30) days after the recommitment. The right to become a par- 29
30 ty to this agreement and the unit operating agreement as a working interest 30
31 owner by reason of a surrender or forfeiture as provided in this section 31
32 shall not be defeated by the nonexistence of a unit operating agreement and 32
33 in the event no unit operating agreement is in existence and a mutually ac- 33
34 ceptable agreement between the proper parties thereto cannot be consummated, 34

1 the Supervisor and the Commissioner may prescribe such reasonable and equitable 1
2 agreement as they deem warranted under the circumstances. 2

3 Nothing in this section shall be deemed to limit the right of joinder or 3
4 subsequent joinder to this agreement as provided elsewhere in this agreement. 4
5 The exercise of any right vested in a working interest owner to reassign such 5
6 working interest to the party from whom obtained shall be subject to the same 6
7 conditions as set forth in this section in regard to the exercise of a right 7
8 to surrender. 8

9 31. TAXES. The working interest owners shall render and pay for their 9
10 account and the account of the royalty owners all valid taxes on or measured 10
11 by the unitized substances in and under or that may be produced, gathered and 11
12 sold from the land subject to this contract after the effective date of this 12
13 agreement, or upon the proceeds or net proceeds derived therefrom. The work- 13
14 ing interest owners on each tract shall and may charge the proper proportion 14
15 of said taxes to the royalty owners having interests in said tract, and may 15
16 currently retain and deduct sufficient of the unitized substances or deriva- 16
17 tive products, or net proceeds thereof from the allocated share of each royal- 17
18 ty owner to secure reimbursement for the taxes so paid. No such taxes shall 18
19 be charged to the United States or to any lessor who has a contract with his 19
20 lessee which requires the lessee to pay such taxes. 20

21 32. CONFLICT OF SUPERVISION: Neither the Unit Operator nor the working 21
22 interest owners nor any of them shall be subject to any forfeiture, termina- 22
23 tion, or expiration of any rights hereunder or under any leases or contracts 23
24 subject hereto, or to any penalty or liability for delay or failure in whole 24
25 or in part to comply therewith to the extent that the said Unit Operator, 25
26 working interest owners or any of them are hindered, delayed, or prevented 26
27 from complying therewith by reason of failure of the Unit Operator to obtain 27
28 with the exercise of due diligence the concurrence of the representatives of 28
29 the United States and the representatives of the State of New Mexico in and 29
30 about any matters or thing concerning which it is required herein that such 30
31 concurrence be obtained. The parties hereto, including the Commission, agree 31
32 that all powers and authority vested in the Commission in and by any provi- 32
33 sions of this contract are vested in the Commission and shall be exercised by 33
34 it pursuant to the provisions of the laws of the State of New Mexico and 34

1 subject in any case to appeal or judicial review as may now or hereafter be 1
2 provided by the laws of the State of New Mexico. 2

3 33. NO PARTNERSHIP. It is expressly agreed that the relation of the 3
4 parties hereto is that of independent contractors and nothing in this agree- 4
5 ment contained, expressed or implied, nor any operations conducted hereunder, 5
6 shall create or be deemed to have created a partnership or association between 6
7 the parties hereto or any of them. 7

8 IN WITNESS WHEREOF, the parties hereto have caused this agreement to be 8
9 executed and have set opposite their respective names the date of execution. 9

UNIT OPERATOR

ATTEST:

PAN AMERICAN PETROLEUM CORPORATION

Assistant Secretary

By

Attorney in Fact

DATE:

P. O. Box 1410
Oil and Gas Building
Fort Worth, Texas 76101

WORKING INTEREST OWNERS

ATTEST:

DATE:

Secretary

By

President

Address:

ATTEST:

DATE:

Secretary

By

President

Address:

ATTEST:

DATE:

Secretary

By

President

Address:

ATTEST:

DATE:

Secretary

By

President

Address:

THE STATE OF TEXAS)
COUNTY OF TARRANT)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____, as Attorney in Fact on behalf of PAN AMERICAN PETROLEUM CORPORATION.

My Commission expires:

June 1, 1969

Notary Public in and for
Tarrant County, Texas

THE STATE OF _____)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____, President of _____, a _____ corporation, on behalf of said corporation.

My Commission expires:

Notary Public in and for
_____ County, _____

THE STATE OF _____)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____, President of _____, a _____ corporation, on behalf of said corporation.

My Commission expires:

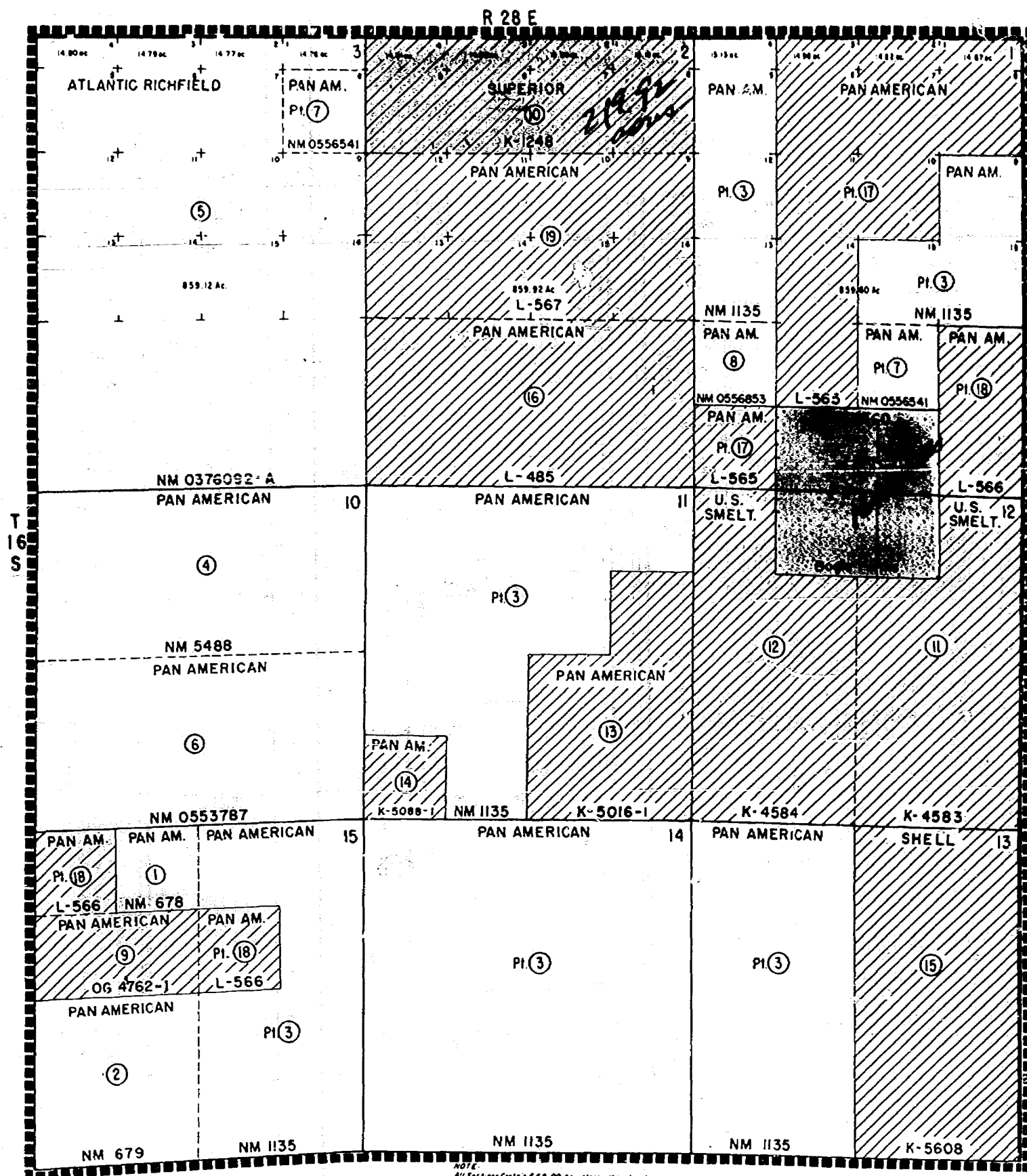
Notary Public in and for
_____ County, _____

THE STATE OF _____)
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1968, by _____, President of _____, a _____ corporation, on behalf of said corporation.

My Commission expires:

Notary Public in and for
_____ County, _____



FEDERAL LEASES

NM 618
NM 679
NM 1135
NM 5488
NM 0376092-A
NM 0553787
NM 0556541
NM 0556853

STATE LEASES

OG-4762-1
K-1248
K-4583
K-4584
K-5016-1
K-5088-1
K-5608
L-485
L-565
L-566
L-567

LEGEND

- = FEDERAL LAND
- = STATE LAND
- = FEE LAND
- ③ = TRACT NUMBER
- = UNIT BOUNDARY

NOTE:
All Sections Contain 640.00 Ac. unless otherwise shown.
All numbered Lease Contain 40.00 Ac. unless otherwise shown.

Federal Lease Acres	3,674.25
State Lease Acres	2,584.39
Fee Lease Acres	160.00
Total Acres in Unit	6,418.64

W.I. Uncommitted to Unit
5.92%

EXHIBIT "A"
TO ACCOMPANY
NORTH CROW FLATS UNIT
EDDY COUNTY, NEW MEXICO
SCALE: 1" = 2000'

94.087%
committed

Exhibit "B" - North Crow Flats Unit Area, Eddy County, New Mexico

September 3, 1968

Tract No.	Description of Land	Number of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Ownership Percentage	Lessee of Record	Overriding Royalty & Percentage	Working Interest & Percentage
<u>Federal Land</u>							
1	T-16-S, R-28-E Sec. 15: NE/4 NW/4	40.00	NM-678 10-31-76	USA - All (12.5%)	Pan American Petroleum Corporation	Donald W. Jensen and wife, Pauline S. Jensen - 2%; Robert L. Haynie and wife, Sue H. Haynie - 3%	Pan American Petroleum Corporation 100%
2	Sec. 15: SW/4	160.00	NM-679 10-31-76	USA - All (12.5%)	Pan American Petroleum Corporation	Ralph E. Smith and wife, Peggy D. Smith - 3%	Pan American Petroleum Corporation 100%
3	Sec. 1: Lots 4, 5, 9, 12, 13, 15, 16, Sec. 11: NE/4, N/2 NE/4, SW/4 NE/4, N/2 SW/4, SE/4 SW/4, Sec. 13: W/2, Sec. 14: All, Sec. 15: SE/4, N/2 NE/4, SE/4 NE/4	1895.13	NM-1135 12-31-76	USA - All (12.5%)	Pan American Petroleum Corporation	John Oakason - $\frac{1}{2}$ of 3%; C. John Perts and wife, Lillian K. Perts - $\frac{1}{4}$ of 3%; J. Humphrey Russell and wife, Evelyn M. Russell - $\frac{1}{4}$ of 3%	Pan American Petroleum Corporation 100%
4	Sec. 10: N/2	320.00	NM-5488 5-1-78	USA - All (12.5%)	Pan American Petroleum Corporation	F. Kenneth Milhollen and wife, Mary E. Milhollen; James V. O'Kane and wife, Doris E. O'Kane - 5%	Pan American Petroleum Corporation 100%
5	Sec. 3: Lots 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, S/2	819.12	NM-0376092-A 4-30-73	USA - All (12.5%)	Atlantic Richfield Company	R. E. Boyle and wife, Sweetie J. Doyle - 3%	Atlantic Richfield Company - 100%

Exhibit "B" - North Crow Flats Unit Area, Eddy County, New Mexico

Page 2

Tract No.	Description of Land	Number of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Ownership Percentage	Lessee of Record	Overriding Royalty & Percentage	Working Interest & Percentage
6	T-16-S, R-28-E Sec. 10: S/2	320.00	NM-0553787 5-31-74	USA - All (12.5%)	Pan American Petroleum Corporation	William H. Moore and wife, Florence I. Moore - 2%; Philadelphia Oil Company of California - 2%; Tesoro Petroleum Corporation - 3%	Pan American Petroleum Corporation - 100%
7	Sec. 1: NW/4 SE/4 Sec. 3: Lot 8	80.00	NM-0556541 3-31-75	USA - All (12.5%)	Pan American Petroleum Corporation	Jack J. Grynberg and wife, Celeste C. Grynberg - 1/2 of 5%; Aubrey Davine and wife, Jacqueline Davine - 1/6 of 5%; Fred T. Davine and wife, Maxine R. Davine - 1/6 of 5%; Gerald A. Gutman and wife, Zeida Gutman - 1/6 of 5%	Pan American Petroleum Corporation - 100%
8	Sec. 1: NW/4 SW/4	40.00	NM-0556853 4-30-75	USA - All (12.5%)	Pan American Petroleum Corporation	M. H. McGrail - 3%	Pan American Petroleum Corporation - 100%

8 Federal Tracts: 3,674.25 Acres

Tract No.	Description of Land	Number of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Ownership Percentage	Lessee of Record	Overriding Royalty & Percentage	Working Interest & Percentage
<u>State Acreage</u>							
9	<u>T-16-S, R-28-E</u> Sec. 15: S/2 NW/4	80.00	OG-4762-1 11-18-68	State (12.5%)	Pan American Petroleum Corporation	None	Pan American Petroleum Corporation 100%
10	Sec. 2: Lots 1,2,3,4 5,6,7,8	219.92	K-1248 3-21-71	State (12.5%)	Superior Oil Company	None	Superior Oil Company - 100%
11	Sec. 12: SE/4, S/2 NE/4, NE/4 NE/4	280.00	K-4583 12-15-74	State (12.5%)	U.S. Smelting, Mining and Refining Company	None	U.S. Smelting, Mining and Refining Company - 100%
12	Sec. 12: SW/4, S/2 NW/4, NW/4 NW/4	280.00	K-4584 12-15-74	State (12.5%)	U.S. Smelting, Mining and Refining Company	None	U.S. Smelting, Mining and Refining Company 100%
13	Sec. 11: SE/4, SE/4 NE/4	200.00	K-5016-1 5-18-75	State (12.5%)	Pan American Petroleum Corporation	Hanagan and Hanagan, a partnership of Robert G. Hanagan and Hugh E. Hanagan - \$800.00 per acre production payment out of 5%	Pan American Petroleum Corporation 100%
14	Sec. 11: SW/4 SW/4	40.00	K-5088-1 6-15-75	State (12.5%)	Pan American Petroleum Corporation	Hanagan and Hanagan, a partnership of Robert G. Hanagan and Hugh E. Hanagan - \$800.00 per acre production payment out of 5%	Pan American Petroleum Corporation 100%
15	Sec. 13: E/2	320.00	K-5608 1-18-76	State (12.5%)	Shell Oil Company	None	Shell Oil Company - 100%
16	Sec. 2: S/2	320.00	L-485 12-19-77	State (12.5%)	Pan American Petroleum Corporation	None	Pan American Petroleum Corporation 100%

Tract No.	Description of Land	Number of Acres	Serial No. & Expiration Date of Lease	Basic Royalty & Ownership Percentage	Lessee of Record	Overriding Royalty & Percentage	Working Interest & Percentage
17	Sec. 1: Lots 1,2,3,6,7, 8,10,11,14, NE/4 SW/4, SW/4 SW/4	364.47	L-565 1-16-78	State (12.5%)	Pan American Petro- leum Corporation	None	Pan American Petroleum Corporation 100%
18	Sec. 1: E/2 SE/4 Sec. 15: NW/4 NW/4, SW/4 NE/4	160.00	L-566 1-16-78	State (12.5%)	Pan American Petroleum Corporation	None	Pan American Petroleum Corporation 100%
19	Sec. 2: Lots 9,10,11,12, 13,14,15,16	320.00	L-567 1-16-78	State (12.5%)	Pan American Petroleum Corporation	None	Pan American Petroleum Corporation 100%
11 State of New Mexico Tracts: 2,584.39 Acres							
<u>Fee Acreage</u>							
20	T-16-S, R-28-E Sec. 1: SE/4-S/4, SW/4 SE/4 Sec. 12: NE/4 NW/4, NW/4 NE/4	160.00	HBP	Bogle Farms, Inc. - All	Tenneco Oil Company	None	Tenneco Oil Company 100%
1 Fee Tract: 160 Acres							
<u>TOTAL:</u>							
	Federal	-	3,674.25 Acres				
	State	-	2,584.39 Acres				
	Fee	-	160.00 Acres				
			6,418.64 Acres				

EXHIBIT A

To Accompany Pan American Petroleum Corporation's
Application for Final Approval to
Unit Agreement for the Development and Operation of
the North Crow Flats Unit, Arapahoe County, New Mexico,
consisting of the following:

1. Letter to all Working Interest Owners dated April 22, 1968, in which joinder to the unit was requested, or in absence of joinder to the unit, a request for a farmout of their acreage to the working interest owners desiring to join in the formation of the unit. Refusal letters were received as follows:
 - (a) Letter from The Superior Oil Company dated July 24, 1968.
 - (b) Letter from Tenneco Oil Company dated September 6, 1968.
2. Letter to all Working Interest Owners dated September 27, 1968 which elected to either join in the formation of the unit or to farm out their acreage to the unit working interest owners.
3. Letter to all Royalty, Overriding Royalty, and Production Payment Owners dated September 27, 1968, in which joinder and ratification to the unit was requested. Unit operators files contain registry receipts signifying that such letters were received. No refusal letters were received.

FORT WORTH, TEXAS--6101

April 22, 1940

Proposed North Crow Flats Unit
Eddy County, New Mexico

Addressees on Attached List

Gentlemen:

Pan American Petroleum Corporation is contemplating the formation of a "Fixed type" Federal-State Exploratory Unit which would be located in T-168, R-26E, Eddy County, New Mexico, and which, if formed, would be called the North Crow Flats Unit. We enclose a plat of the proposed unit for your information. The unit would provide for a 9,500-foot Test of the Mississippi test to be drilled in the NW/4 Section 11, T-168, R-26E, at an approximate cost of \$163,500.00 for a producer or \$141,500.00 for a dry hole. According to our information, the present ownership within the proposed unit is as follows:

	<u>Acres</u>	<u>Per Cent of Unit</u>
Pan American Petroleum Corporation	3,399.60	57.63338
Atlantic Richfield Company	819.12	12.76158
U. S. Smelting, Refining and Mining Company	550.00	8.72459
Shell Oil Company	320.00	4.93548
Intex Oil Company	320.00	4.93548
Robert G. Hanagan and Hugh E. Hanagan	240.00	3.73911
Superior Oil Company	219.92	3.42627
Tenneco Oil Company	160.00	2.39274
Humble Oil and Refining Company	80.00	1.24637
	6,418.64	100.00000

In order for us to be in a position to learn your ideas concerning the formation of this proposed unit, we would appreciate very much your advising, at your earliest convenience, if it would be your desire to participate in the drilling of this proposed test well. For those who would not wish to participate in the drilling of the initial test well, we would propose the following shut-out agreement:

Approved: [Signature] Assigned List
April 22, 1953
Page 2

The nonparticipating parties shall have no interest in their assets, and shall not have any interest in the profits. The parties shall have a 1/10 of 8/8 overriding royalty interest in the oil and gas produced from the test well to be drilled on the basis of a negotiated operating agreement.

Please advise this office as soon as possible if you would like to join in the drilling of the test well or if you would be willing to drill on the above basis. If you would like to join, please advise if you would also be interested in acquiring any additional interest under the above farmout basis.

Since the formation of a unit of this type would require considerable time, we would appreciate your advising of your decision with the least practical delay. Should you have any questions concerning this matter, please advise this office immediately at the above address.

Mine very truly,

PAN AMERICAN PETROLEUM CORPORATION

Jack D. Anderson

cp

Enclosure

Shell Oil Company
Box 1858
Roswell, New Mexico

Attention: Mr. C. V. Lawrence

Superior Oil Company
P. O. Box 1900
Midland, Texas

Attention: Mr. Raymond Parker

Tenneco Oil Company
P. O. Box 1031
Midland, Texas

Attention: Mr. R. E. Winckler

Messrs. Robert G. Hanagan and
Hugh E. Hanagan
P. O. Box 1737
Roswell, New Mexico

Atlantic Refining Company
P. O. Box 1878
Midland, Texas

Attention: Mr. D. W. Howell

Atlantic Refining Company
P. O. Box 1878
Roswell, New Mexico 88401

Attention: Mr. Jack Beard

U. S. Smelting, Refining and
Mining Company
P. O. Box 1010
Salt Lake City, Utah 84110

Attention: Mr. E. L. Stonestreet

Exxon Oil Company
Box 1842
Bakersfield, California

(b)

MIDLAND, TEXAS 79701

July 24, 1968

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

Attention: Mr. Jack D. Anderson

Re: Proposed North Crow Flats Unit
Eddy County, New Mexico

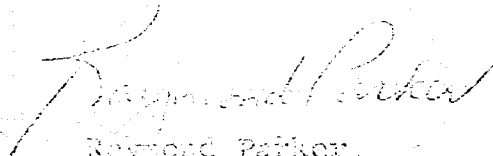
Gentlemen:

Reference is made to your letter of April 22, 1968, wherein you propose the formation of a 6,418.64-acre unit for the drilling of a 9,800 foot Mississippian test.

After careful consideration of this proposal, we regret to advise that we are not agreeable to participating in this venture.

Yours very truly,

THE SUPERIOR OIL COMPANY


Raymond Parker
District Landman

RP:nd

September 15, 1952

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

Attention: Mr. Jack D. Anderson

Re: Proposed North Crow Flats Unit
Spring Lake Area
Hidalgo County, New Mexico

Gentlemen:

With reference to my recent telephone conversation with Mr. Jack D. Anderson pertaining to the formation of the proposed North Crow Flats Unit, this is to advise that in view of the extremely small interest that Tenneco would have in the proposed unit, Tenneco is not interested in joining said unit at this time.

In the event, however, that you desire to drill a well on lands to be pooled with Tenneco acreage in order to form a production unit, the undersigned will recommend to management that Tenneco either join you in the drilling thereof or grant you a farmout.

Sincerely,

TEENECO OIL COMPANY

R. E. Winkler
R. E. Winkler,
District Landman

REW:al

FORT WORTH, TEXAS 76101

September 27, 1968

Box 119
North Crow Flats Unit
Holt County, New Mexico

Atlantic Richfield Company
P. O. Box 1978
Roswell, New Mexico 88201
Attention: Mr. Jack Laird

Superior Oil Company
P. O. Box 1147
Holt County, New Mexico
Attention: Mr. Bob Clark

U.S. Shelling, Refining and Mining Company
P. O. Box 1980
Salt Lake City, Utah
Attention: Mr. E. L. Stonestreet

Gentlemen:

We enclose two copies of Unit Agreement for the Development and Operation of the North Crow Flats Unit Area, along with one executed and one extra copy of Unit Operating Agreement for said unit. We also include a six Ratification and Joinder Agreements and would like to request that you execute and return to this office five copies of the Ratifications after you have reviewed the Unit Agreement and Unit Operating Agreement.

Please be advised that Superior Oil Company and Tennessee Oil Company refuse to commit their working interest to the unit, but we do not feel that this will jeopardize our operations.

Since our letter to you dated April 22, 1968, we wish to advise that Pan American has acquired the interest which was shown in said letter as belonging to Intex Oil Company (which is now known as General Petroleum Corporation), Robert C. Hanagan and Hugh E. Hanagan, and Humble Oil and Refining Company. This has increased Pan American's interest approximately ten per cent.

We would appreciate receiving the five executed copies of the Ratification as soon as possible so that we may proceed with the U.S.G.S. and the Commissioner of Public Lands. As you will note, Tract 9 contained on Exhibit B of said Unit Agreement has an expiration date of November 10, 1968, and for this reason we would like to request that the Ratifications be processed

Atlantic Telephonic Company, U.S. E. 11th Street, New York 10003

TELETYPE UNIT

September 27, 1958

Page Two . . .

at your earliest convenience. Should you have any questions concerning this matter, please telephone this office collect.

Yours very truly,

FOR AMERICAN UNIONIZATION COOPERATION

JACK D. ANDERSON

sh

Enclosures

REGISTERED MAIL
RETURN RECEIPT REQUESTED

FORT WORTH, TEXAS-52101

September 27, 1968

Box 43,117
North Crow Flats Unit
Deer County, New Mexico

TO ALL ROYALTY, OVERRIDING ROYALTY AND PRODUCTION PAYMENT OWNERS:

Pac American Petroleum Corporation is proposing the formation of a unit plan of exploration and operation for an area in Deer County, New Mexico, which has been designated as the North Crow Flats Unit. The purpose of the unit is to more properly conserve the natural resources and provide for an equitable allocation of any oil or gas production which might be discovered in the unit area.

At our request the United States Geological Survey and the Commissioner of Public Lands, State of New Mexico, has designated this to be a logical unit area and has approved our proposed form of unit agreement. It is the standard form of unit agreement 20 CFR 226.22 (1961 reprint); however, they reserve the right to deny approval of any agreement which, in their opinion, does not have full commitment of sufficient lands to afford effective control of unit operations.

Section 9 of the Unit Agreement makes provision for the drilling of the initial test well to the top of the Mississippian formation or 9300 feet; unless at a lesser depth unitized substances should be discovered in paying quantities. The location of the initial test well has not been definitely determined. Royalty, overriding royalty and production payment owners are, of course, not charged with any part of the cost and expenses in the drilling or operations of the test wells.

We believe that you will share our desire to have a deep test well drilled in this area, and it is our hope that you will join with us in the formation of this unit. We feel that unitization is the best feasible method of exploring and developing this area and if it is to be successful, sufficient interest must be committed to the unit to make it workable.

TO ALL ROYALTY, OILFIELD, JOINT AND PRODUCTION PAYMENTS, etc.
September 27, 1963
Page Two . . .

It is our belief that you are the owner of a royalty, overriding royalty or production payment under one or more of the Oil and Gas Leases in the unit area; so we, therefore, attach a copy of the unit agreement and six Ratification forms by which you may assert your interest in this unit. If this is acceptable to you, please send them to the office of the unit manager, return to this office five of the Ratification forms. If you cannot do this, it will be necessary for your agent to join therein. You may retain one copy of the Ratification and the Unit Agreement for your records. We shall appreciate hearing from you as quickly as possible so we are anxious to complete this project at the earliest possible time. If there is any further information you desire, please feel free to contact this office.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION

JACK D. ANDERSON

sh

Enclosures

REGISTERED MAIL
RETURN RECEIPT REQUESTED

Mr. and Mrs. Donald W. Jensen
2987 Southwest 8th Street
Hollywood Beach, Florida 33062

Mr. and Mrs. Robert L. Haynie
Box 1209
Roswell, New Mexico

Mr. and Mrs. Ralph E. Smith
Box 216
Palton Island
Newport Beach, California

Mr. John Oakason
Mr. and Mrs. C. John Perts
Mr. and Mrs. J. Humphrey Russell
c/o Mr. John Oakason
654 South 9th Street East
Salt Lake City, Utah 84102

Mr. and Mrs. F. Kenneth Millhollen
Mr. and Mrs. James V. O'Kane
5357 Valley Boulevard
Los Angeles, California 90032

Mr. and Mrs. R. E. Boyle
1202 Cuthbert Avenue
Midland, Texas

Mr. and Mrs. William H. Moore
c/o Mr. C. E. Strange
Box 61
Bakersfield, California

Mr. and Mrs. Bill Ramsey of S. J. J. J.
Bakersfield California

Texaco Petroleum Corporation
213 East Drive
San Antonio, Texas 78204
Attention: Mr. Don Skittley

Mr. and Mrs. Jack J. Grynsberg
Mr. and Mrs. Murray Davis
Mr. and Mrs. Fred T. Davine
Mr. and Mrs. Gerald A. Outman
c/o Mr. Jack J. Grynsberg
750 Petroleum Club Building
Denver, Colorado

Mr. M. H. McGrail
Box 604
Hobbs, New Mexico

Hanagan and Hanagan
Box 1737
Roswell, New Mexico

EXHIBIT C
To Accompany Pan American Petroleum Corporation's
Application for Federal
Unit Agreement for the Development and Operation of
The North Crow Flats Unit Area, Elbert County, New Mexico,
showing status, by tracts, of the commitment of
royalty, overriding royalty and
production payment interests

TRACT 1

Federal Acreage - 2% overriding royalty owned by Donald W. Jensen is committed as indicated by enclosed Ratification. 3% overriding royalty owned by Robert L. Haynie et ux is committed as indicated by enclosed Ratification.

TRACT 2

Federal Acreage - 5% overriding royalty owned by Ralph E. Smith is committed as indicated by enclosed Ratification.

TRACT 3

Federal Acreage - 3% overriding royalty owned by John Onkason, C. John Perts and J. Humphrey Russell is committed as indicated by enclosed Ratification.

TRACT 4

Federal Acreage - 5% overriding royalty owned by F. Kenneth Millhollen and James B. O'Kane is committed as indicated by enclosed Ratification.

TRACT 5

Federal Acreage - 3% overriding royalty owned by R. E. Boyle is committed as indicated by enclosed Ratification.

TRACT 6

Federal Acreage - 2½% overriding royalty owned by William H. Moore; 2½% overriding royalty owned by Philadelphia Oil Company of California; 3% overriding royalty owned by Tesoro Petroleum Corporation; all of these interests are committed as indicated by enclosed Ratification.

TRACT 7 -

Federal Acreage - $1/2$ of 5% is owned by Aubrey Perkins;
 $1/6$ of 5% is owned by Fred T. Dwyer; $1/6$ of 5% is owned
by Gerald A. Guttman; all of these interests are committed.

TRACT 8

Federal Acreage - 3% overriding royalty is owned by M. H.
McGrail and is committed as indicated by enclosed Ratification.

TRACT 9

State Acreage - no overriding royalty.

TRACT 10

State Acreage - no overriding royalty; working interest is
not committed to the unit.

TRACT 11

State acreage - no overriding royalty.

TRACT 12

State Acreage - no overriding royalty.

TRACT 13 and 14

State Acreage - \$800.00 per acre production payment out of 5%
owned by Hanagan and Hanagan is committed as indicated by
enclosed Ratification.

TRACT 15

State Acreage - no overriding royalty.

TRACT 16

State Acreage - no overriding royalty.

TRACT 17

State Acreage - no overriding royalty.

TRACE 18

State Acreage - no overriding royalty.

TRACE 19

State Acreage - no overriding royalty.

TRACE 20

Fee Acreage - no overriding royalty. Working interest is not committed to the unit.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3863
Order No. R-3508

APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR APPROVAL OF THE NORTH
CROW FLATS UNIT AGREEMENT, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 25, 1968, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 2nd day of October, 1968, 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, Pan American Petroleum Corporation, seeks approval of the North Crow Flats Unit Agreement comprising 6,418.64 acres, more or less, of State, Federal, and Fee lands described as follows:

EDDY COUNTY, NEW MEXICO
TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM
Sections 1, 2, and 3: All
Sections 10, 11, 12, 13, 14, and 15: All

(3) That approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

-2-

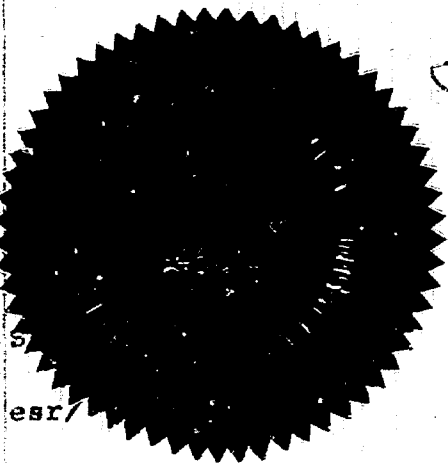
CASE No. 3863

Order No. R-3508

IT IS THEREFORE ORDERED:

- (1) That the North Crow Flats Unit Agreement is hereby approved.
- (2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.
- (3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.
- (4) That this order shall become effective upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico and the Director of the United States Geological Survey; that this order shall terminate ipso facto upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.
- (5) 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

David F. Cargo
DAVID F. CARGO, Chairman

Gupton B. Hays
GUPTON B. HAYS, Member

A. L. Porter, Jr.
A. L. PORTER, Jr., Member & Secretary

esr/

State of New Mexico
Oil Conservation Commission



Re: Case No. 3863
Order No. R-3508
Applicant:
PAN AMERICAN PETROLEUM CORP.

A. L. Porter, Jr.
A. L. PORTER, Jr.
Secretary-Director

Hobbs OCC x
 Artesia OCC x
 Aztec OCC
 Other Unit Division - State Land Office



OFFICE OF
NOV 8 20 1968
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Denver 8057
Roswell, New Mexico 88201

IN REPLY.

November 1, 1968

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

Attention: Mr. Jack D. Anderson

Gentlemen:

On November 1, 1968, the Acting Oil and Gas Supervisor approved the North Cross Plains unit agreement, Eddy County, New Mexico. This agreement has been designated No. 14-06-0001-11562, and is effective as of the date of approval.

Enclosed are two approved copies of the unit agreement for your records. We request that you furnish the State of New Mexico and other interested principals with appropriate evidence of this approval.

Sincerely yours,

(ORIG. SGD) CARL C. TRAYWICK

CARL C. TRAYWICK
Acting Oil and Gas Supervisor

cc:
Washington
BLM, Santa Fe
Comm. of Pub. Lands, Santa Fe
NMOCC, Santa Fe ✓
Artesia
BOMC, Roswell

State of New Mexico



MAILED

'68 Nov 1 AM 8 35

Commissioner of Public Lands

GYTON B. HAYS
COMMISSIONER



P. O. BOX 1148
SANTA FE, NEW MEXICO

October 31, 1968

Pan American Petroleum Corporation
P. O. Box 1410
Fort Worth, Texas 76101

Re: North Crow Flats Unit
Eddy County, New Mexico

ATTENTION: Mr. Jack D. Anderson

Gentlemen:

The Commissioner of Public Lands has this date approved your North Crow Flats Unit, Eddy County, New Mexico, subject to like approval by the United States Geological Survey and the Oil Conservation Commission.

Enclosed are five (5) Certificates of Approval.

This Unit Agreement is effective upon approval by the United States Geological Survey, therefore, please furnish us a copy of their Certificate of Determination immediately so we can process this unit.

Enclosed is your Official Receipt No. I 43407 in the amount of Forty-Five (\$45.00) Dollars which covers the filing fee.

Very truly yours,

GYTON B. HAYS
COMMISSIONER OF PUBLIC LANDS

BY:
Malcolm L. Long, Supervisor
Unit Division

GBH/TR/ML/s
encls.

Pan American Petroleum Corporation
October 31, 1968
Page 2.

cc: United States Geological Survey
P. O. Drawer 1857
Roswell, New Mexico 88201

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

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

P. O. BOX 1410

K. W. BOLT
ASSISTANT DIVISION
PRODUCTION MANAGER

FORT WORTH, TEXAS--76101

September 3, 1968

File: GHF-463-986.510.1

Subject: Unit Agreement
North Crow Flats Unit
Eddy County, New Mexico*Case 3863*Mr. A. L. Porter (3)
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

Pan American Petroleum Corporation respectfully requests that a hearing be scheduled to consider our application for approval of the Unit Agreement for the North Crow Flats Unit, comprising 6,419 acres of Federal, State and fee acreage in Township 16 South, Range 28 East, Eddy County, New Mexico. Attached is a copy of the Unit Agreement which contains as Exhibit "A" a plat of the Unit area and as Exhibit "B" a listing of working interest and royalty interest owners within the proposed Unit area.

Yours very truly,

*D. L. Ray ghf*GHF:ju
Attachments

DOCKET MAILED

Date 9-13-68

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

P. O. BOX 1410

FORT WORTH, TEXAS—76101

September 3, 1968

File: GHF-463-986.510.1

Subject: Unit Agreement
North Crow Flats Unit
Eddy County, New Mexico

Mr. A. L. Porter (3)
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Case 3863

Dear Sir:

Pan American Petroleum Corporation respectfully requests that a hearing be scheduled to consider our application for approval of the Unit Agreement for the North Crow Flats Unit, comprising 6,419 acres of Federal, State and fee acreage in Township 16 South, Range 28 East, Eddy County, New Mexico. Attached is a copy of the Unit Agreement which contains as Exhibit "A" a plat of the Unit area and as Exhibit "B" a listing of working interest and royalty interest owners within the proposed Unit area.

Yours very truly,

*D. J. Ray*GHF:jn
Attachments

SEP 4 AM 8 21

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

P. O. BOX 1410

FORT WORTH, TEXAS—76101

September 3, 1968

File: GHF-463-986.510.1

Subject: Unit Agreement
North Crow Flats Unit
Eddy County, New Mexico*Case 3863*Mr. A. L. Porter (3)
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

Pan American Petroleum Corporation respectfully requests that a hearing be scheduled to consider our application for approval of the Unit Agreement for the North Crow Flats Unit, comprising 6,419 acres of Federal, State and fee acreage in Township 16 South, Range 28 East, Eddy County, New Mexico. Attached is a copy of the Unit Agreement which contains as Exhibit "A" a plat of the Unit area and as Exhibit "B" a listing of working interest and royalty interest owners within the proposed Unit area.

Yours very truly,

*D. L. Ray*GHF:jn
Attachments

32 SEP 9 1968

ATWOOD & MALONE
LAWYERS

P. O. DRAWER 700
TELEPHONE 808 622-6221
SECURITY NATIONAL BANK BUILDING
ROSWELL, NEW MEXICO
88201

JEFF D. ATWOOD (883-1960)
CHARLES F. MALONE
RUSSELL D. MANN
PAUL A. CODY
BOB F. TURNER
ROBERT A. JOHNSON
JOHN W. BASSETT
ROBERT E. SABIN

September 16, 1968

A. L. Porter, Jr., Esquire
Oil Conservation Commission
State Land Office
Santa Fe, New Mexico

RE: Examiner Hearing - September 25 - Case No. 3863

Dear Mr. Porter:

For Pan American Petroleum Corporation, applicant in Case No. 3863,
we enclose our Entry of Appearance and request that it be filed.

Thank you and with regards, we are,

Very truly yours,

ATWOOD & MALONE


Charles F. Malone

CFM:sah
Encl.

cc: J. K. Smith, Esquire (w/encl.)
Guy Buell, Esquire (w/encl.)

98 SEP 17 AM 10 30

IN THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION)
OF PAN AMERICAN PETROLEUM CORPORA-)
TION FOR APPROVAL OF THE NORTH CROW) No. 3863
FLATS UNIT AREA AND UNIT AGREEMENT,)
TOWNSHIP 16 SOUTH, RANGE 28 EAST, EDDY)
COUNTY, NEW MEXICO.)

ENTRY OF APPEARANCE

COME NOW Atwood & Malone and enter their appearance in
this cause in behalf of Pan American Petroleum Corporation, and
with Guy Buell, Esquire, and Gordon Ryan, Esquire of Fort Worth,
Texas.

ATWOOD & MALONE

By Charles E. Malone
Post Office Drawer 700
Roswell, New Mexico

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 25, 1968

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

The following cases will be heard before Daniel S. Nutter, Examiner, or
Elvis A. Utz, Alternate Examiner:

CASE 3778: (Continued from the August 7, 1968, Examiner Hearing)

Application of Atlantic Richfield Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dually complete its State BH Well No. 1 located 660 feet from the North and West lines of Section 13, Township 19 South, Range 34 East, Quail-Queen Pool, Lea County, New Mexico, in such a manner as to permit production of oil from 5080 feet to 5136 feet in the lower Queen formation through tubing and the disposal of produced salt water into the upper Queen formation through the casing-tubing annulus in the perforated interval from 4820 feet to 4830 feet.

CASE 3862: Application of Gulf Oil Company - U. S. for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its W. D. Grimes (NCT-A) Well No. 16, located in Unit D of Section 32, Township 18 South, Range 38 East, Lea County, New Mexico, to produce oil from undesignated Paddock and Blinbry oil pools through parallel strings of tubing.

CASE 3863: Application of Pan American Petroleum Corporation for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Crow Flats Unit Area comprising 6,419 acres, more or less, of Federal, State and Fee lands in Township 16 South, Range 28 East, Eddy County, New Mexico.

CASE 3864: Application of Pubco Petroleum Corporation for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Wolfcamp formation in the perforated interval from approximately 10,756 feet to 10,834 feet in the Sinclair 668 State Well No. 1 located in Unit E of Section 27, Township 16 South, Range 34 East, Kemnitz-Wolfcamp Pool, Lea County, New Mexico.

DRAFT

GMH/esr

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE No. 3863

Order No. R-3508

APP
APPLICATION OF PAN AMERICAN PETROLEUM
CORPORATION FOR APPROVAL OF THE NORTH
CROW FLATS UNIT AGREEMENT, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 25, 1968,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this October day of 1968, 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, Pan American Petroleum Corporation,
seeks approval of the North Crow Flats Unit Agreement comprising
6,418.64
~~6,419~~ acres, more or less, of State, Federal, and Fee lands
described as follows:

EDDY COUNTY, NEW MEXICO
TOWNSHIP 16 SOUTH, RANGE 28 EAST, NMPM

Section 1, 2, and 3 : all
Section 10, 11, and 12 : all
Section 10, 11, 12, 13, 14, and 15 : all

(3) That approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

IT IS THEREFORE ORDERED:

(1) That the North Crow Flats Unit Agreement is hereby approved.

(2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.

(3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.

(4) That this order shall become effective upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico and the Director of the United States Geological Survey; that this order shall terminate ipso facto upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.

(5) 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.

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMAS BLDG. • P. O. BOX 1092 • PHONE 243-4491 • ALBUQUERQUE, NEW MEXICO

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 25, 1968

EXAMINER HEARING

IN THE MATTER OF:

Application of Pan American Petroleum
Corporation for a unit agreement,
Eddy County, New Mexico

Case No. 3863

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We'll call case 3863.

MR. HATCH: Case 3863, application of Pan American Petroleum Corporation for a unit agreement, Eddy County, New Mexico.

MR. BUELL: For Pan American Petroleum Corporation, Guy Buell. We have two witnesses, Mr. Examiner. We also have a rather large cross-section which, with the Examiner's permission, we'd like to put it on the board directly behind the Examiner.

MR. NUTTER: Very well. I might observe at this point that we have an entrance on your behalf by Atwood and Malone, Roswell.

MR. BUELL: Thank you, sir.

(Whereupon, Applicant's Exhibits Numbers 1, 2, and 3 were marked for identification.)

MR. BUELL: Here's a complete set of exhibits, Mr. Examiner, all stamped, including a folder of the cross-section.

MR. HATCH: Both witnesses can stand and be sworn.

(Whereupon, witnesses were sworn.)

JACK D. ANDERSON

called as a witness, and having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Anderson, would you state your name, by whom you are employed, in what capacity, and in what location, please, sir?

A My name is Jack D. Anderson. I am employed by Pan American Petroleum Corporation in Fort Worth, Texas. I'm a landman.

Q In connection with your employment with Pan American, are you familiar with the unit agreement and the efforts to form the North Crow Flats Exploratory Unit?

A Yes, sir, I am.

Q Just what is that unit, Mr. Anderson?

A It's a unit that's comprised of federal, state, and fee acreage. It is an exploratory-type unit. It's the same form that has been used in this area, and has been approved by the U.S.G.S. Office, and also the Commissioner's office.

Q In that connection, let me direct your attention to what has been identified as our exhibit number 1. Is that a copy of the unit agreement?

A Yes, sir, it is.

Q Is there anywhere we can turn to in this agreement and see a map or plat of the surface area that is included in

the unit?

A Yes, sir. Our exhibit A to the unit agreement is an outline of the unit area.

Q Do you recall what the total acreage within the unit boundaries is?

A Yes. It contains 6,418.64 acres. That's located in Township 16 south, Range 28 east.

Q Is it all in the northeast quarter of that Township?

A Yes, sir, it is.

Q Do you have a breakdown on the various types of acreage that are included within the unit?

A Yes, sir. Within the unit outlined, there are federal acreage, 3,674.25 which represents 57.25 per cent of the unit area. State acreage, 2,584.39 acres, which represents 40.26 per cent. Fee acreage is 160 acres. This represents 2.49 per cent.

Q Will you state for the record, Pan American's acreage in this unit, and its per cent of the total acreage?

A Pan American owns 4,339.60 acres, which represents 67.16 per cent.

Q Now, as of this time, from the standpoint of the working interests or operators, what per cent is committed to the North Crow Flats Unit?

A Of this unit, there are 6,038.72 acres committed, which represents 94.08 per cent.

Q How many tracts are not committed?

A There are two tracts which are not committed. They're referred to on Exhibit A as tracts 10 and 20. Tract 10 is owned by Superior, which contains 219.92 acres. Tract 20 is owned by Tenneco, which contains 160 acres. This gives a total of 379.92 acres, or 5.92 per cent of the unit area, which is uncommitted.

Q Now, on the copy of the unit agreement and the attachment, Exhibit A to that agreement, that the Examiner has, how have you distinguished those two tracts, just for his ready-reference?

A We have distinguished those by shading them in green.

Q And you've done that on the Examiner's copy?

A On the Examiner's copy only.

Q Let me ask you this: in the event these two operators should subsequently change their minds, does the unit agreement provide for a subsequent joinder?

A Yes, sir, it does.

Q Let me ask you this from a landman's standpoint: do you feel that we have sufficient acreage committed to this unit at this time to give us effective and efficient control over

operations in the unit?

A Yes, sir, I certainly do.

Q Now, we have federal and state lands involved. Let me ask you this: have you discussed this unit with the U.S.G.S. and the Land Commissioner?

A Yes, sir. We've discussed it with both of the agencies. We've discussed it with U.S.G.S. in Roswell. We also made a trip into Santa Fe to discuss it with the Commissioner.

Q Let's take the U.S.G.S., first. What is the status of this unit with respect to the U.S.G.S.?

A We have made our preliminary approach to the U.S.G.S. Then we followed that with a request for preliminary approval. This request has been processed by the Roswell office, and on the 13th of September, it was forwarded to Washington for preliminary approval.

Q Based on your experience with matters like this in the past, would you expect preliminary approval to return from Washington very shortly?

A Yes, sir, we would.

Q Is it the policy of the Land Commissioner of the State of New Mexico not to give preliminary approval until the U.S.G.S. has done so?

A Yes, sir, this is what we have been advised, that they would prefer to wait until the U.S.G.S. has granted their preliminary approval. We have made application for preliminary approval to furnish them with the application for preliminary approval, but we understand they will wait on the U.S.G.S.

Q Based on your experience with the Land Commissioner in units similar to this in this general area in the past, would you anticipate any trouble in obtaining preliminary approval from the Land Commissioner?

A No, sir, we do not.

Q As you know, Mr. Anderson, normally, it's Pan American's policy to wait until we have written preliminary approval before we request a hearing. Why did we change that policy with regard to this exploratory unit?

A In this particular case, there's an 80-acre tract contained in the unit outlined that has an early expiration date and, for this reason, we felt that it would be best for us to go ahead and present this case at this time.

Q So this just answers to the expediting of all the necessary requirements to making the unit effective. We've requested the hearing prior to having written preliminary approval?

A Yes, sir, that's correct.

Q Will you furnish written preliminary approval of both the U.S.G.S. and the Land Commission to the Commissioner to the attention of the Examiner when it is received by Pan American?

A Yes, sir, we will.

Q Do you have anything else that you would care to add at this time, Mr. Anderson?

A No, sir, I don't believe so. I believe that covers it.

MR. BUELL: May it please the Examiner, that's all we have at this time of Mr. Anderson by way of direct testimony.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Anderson, the early expiration of the lease, I presume, would be the Tract 9, which expires November the 18th?

A That's correct.

Q Have the two operators, who aren't committed, being Superior and Tenneco, declined or they just haven't replied?

A They have declined by letter.

MR. NUTTER: Are there any other questions of Mr. Anderson? He may be excused.

MR. BUELL: Mr. Roberts, please.

J. W. ROBERTS

called as a witness, and having been first duly sworn, was

examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Roberts, would you state your complete name, by whom you are employed, in what capacity and in what location, please, sir?

A I'm Wayland Roberts, employed by Pan American Petroleum Corporation in Fort Worth, and my job is Project Geologist.

Q Now, you've testified at previous Commission hearings and your qualifications as a geologist are a matter of public record, are they not?

A That's correct.

Q I will ask you this: in the area of the North Crow Flats Unit, that area is under your supervision, is it not?

A That's correct.

Q And you've made many studies of your own in this area?

A That's correct.

Q Now, you heard our reference to exhibit 1, the unit agreement. Does that agreement contain a requirement with respect to drilling and exploratory well on the unit?

A Yes, sir. The provision calls for a 9400-foot, top of the Mississippi Siliceous Test at a location tentatively, or as we find on exhibit 2, by the red dot, in the northwest quarter

of Section 11, unless commercial production is established at a lesser depth.

Q Let me clear this up. I don't believe the unit agreement requires that the wells be drilled at this specific location. It just requires that a well be drilled and that's where we propose to drill it, is that right?

A That's correct.

Q What is your primary target in this area?

A Our primary target in here are the Atoka-Morrow Sandstones of the lower Pennsylvanian.

Q Let's discuss the geology of the Atoka-Morrow Sands, and in that connection, let me direct your attention to what has been identified as our exhibit number 2. What is that exhibit?

A Well, it shows the general area of the North Crow Flats Unit and it shows also the outline of the proposed unit by black tape here.

Q Would you locate, generally, the North Crow Flat Unit for the Examiner?

A It's approximately 15 miles northeast of Artesia in Eddy County.

Q Now, with respect to the geology of our primary target, the Atoka-Morrow Sandstone, what does exhibit 2 reflect?

A We have included on exhibit 2 some results of a fairly extensive regional study here dealing with these sands of the lower Pennsylvanian. On the basis of these regional studies, we found that there appears to be a critical relationship between isopachous thickness and structural nosing as regards sand development within this part of the section.

On the exhibit, we have transferred some of this regional data, to be specific, in this case. We have, here, a thickness line of the Atoka-Morrow sequence: 300 feet thickness line. Also, on the map, we have included the minus 5,000 foot structural datum contour line which is contoured as a datum at the base of the Stiaawn or the top of the Atoka-Morrow, in this case.

Q Looking at exhibit 2, it appears that our proposed location is almost in the center of this exploratory unit?

A That's correct.

Q Just about halfway between your 5,000 foot structural contour line and your 300 foot thickness line?

A That's correct.

Q What is the significance of the wavy line in the northwest corner of the unit that you shaded with orange?

A As identified on the exhibit 2 and as determined by our regional studies, this approximates the northwest limit of significant sandstone development within this particular part of

the section.

Q Sir, do you have any comments about the limits, the possible limits -- of course, we are talking about an exploratory unit in a wildcat area -- but, about the possible limits to the south and to the east?

A Again, this is based on our regional studies. We feel that this critical thickness here of about 300 feet within this interval represents the area in which, or the interval in which the best sands will be developed.

Q Are you ready now to discuss your cross-section?

A Yes.

Q Will you put it on the board directly behind the Examiner? If it aids you, you might go over there and I'll ask you to speak a little louder so that the reporter can hear you.

What is exhibit 3?

A This is a regional stratigraphic cross-section that extends from the northwest on the left to the southeast on the right and it projects over this way about twenty miles.

Q Let me ask you this: actually, within the North Crow Flats Exploratory Unit, there is no well that has been drilled to this depth, has there?

A Within the unit outlined, no.

Q So have you taken logs from wells outside the unit and projected them on a straight line basis into the unit?

A That's correct.

Q Would you go to the Examiner and point on exhibit 2 the general area that you have projected this section to, as far as the unit is concerned?

A The cross-section would project approximately down to the center of the unit with a single well located in the lower lefthand corner of the map, being one of the wells included on the cross-section. It's this well right here (indicating).

MR. MUTTER: That's the well, the second from the right?

THE WITNESS: That's correct.

Q Speak up just a little, Mr. Roberts.

A I'm sorry.

Q Now, with that basic understanding, would you please state for the record and for the Examiner's benefit what this cross-section reflects from the standpoint of the geology of the Atoka-Morrow that we expect to encounter in our exploratory unit?

A The interval that we've included in our isopac studies is between this datum line, a structural point that we

used on our structural mapping, and the lower limit of that line is this, (indicating), to conform with the surface down here. You will note that in this particular well here, and then these wells in general in here, we have thicknesses that range from 400 to 300 to 200 feet in thickness.

Q When you are referring to a particular well, why don't you give the number on your cross-section of that log so that we can have it in the record, the exact log you're referring to.

A Well No. 4, here, is a producer out of this sand zone right here. It's in the Gulf Field, Penn Field. In that section here, the Atoka-Morrow sequence is about 250 to 300 feet thick.

MR. NUTTER: That's producing from the yellow section on that cross-section?

THE WITNESS: It's producing from the yellow section, yes, sir.

Q Which is the Atoka-Morrow Sandstone?

A That's correct. I understand now that it has depleted but it produced something like five, below the pipe, bcf of gas.

Q That's certainly a commercial well, is it not?

A Yes, sir.

Q Would you be happy if we would encounter that much gas in our exploratory or wildcat well that we're going to drill

on this unit?

A Very much so.

Q Do you have any other comments about this section, Mr. Roberts?

A No.

Q All right, sir. Do you want to come back to your chair? Of course, we all realize that this is wildcat area. Let me ask you this: do you feel, based on your study of this area that you have included within the confines of this exploratory unit, the acreage that could possibly be productive from this Atoka-Morrow Sandstone?

A Yes, I do.

Q Let me ask you this: you heard Mr. Anderson's testimony to the effect that two tracts, or less than six per cent of the interest within this unit at this time are not committed. You also know where the location of those tracts are?

A Yes.

Q Do you think that small, uncommitted interest will in any way affect the efficient development and exploration conducted by Pan American on this unit?

A No.

Q Now, let me ask you this: we've been talking about the Atoka-Morrow, which is rather deep in this area. That's

our primary target. We're going to have to penetrate other formations on the way down, aren't we?

A That's correct.

Q What formations will we penetrate, drilling to our objective?

A On exhibit 2, on the right-hand side is a list of formation tops that will be encountered with their anticipated depths, and by an asterisk, we have identified zones that will be potential pay zones in this area. That would include the Queen at 1100 feet, the San Andres at around 1900 feet, the Wolfcamp at 6500 feet, thereabouts. Also, in the Pennsylvanian in this area, we have carbonates above the sand section which is our primary objective that offer additional possibilities.

Q The Atoka-Morrow is the sandstone, the Pennsylvanian age, but there are also other possible producing formations of carbonate nature of Pennsylvanian age above where you expect to encounter the sandstone?

A That's correct.

Q Mr. Roberts, in your opinion, will the approval of our application by the Commission be in the interest of conservation as well as protecting the correlative rights of the committed interest owners as well as the non-committed interest owners in the North Crow Flats Unit?

A Yes.

Q Do you have anything else that you care to add at this time?

A I believe not.

MR. BUELL: May it please the Examiner, that's all we have by way of direct of Mr. Roberts. I would like to formally offer Pan American's Exhibits 1 through 3, inclusive.

MR. NUTTER: The cross-section is number 3, Mr. Buell?

MR. BUELL: Yes, sir.

MR. NUTTER: Pan American's Exhibits 1 through 3 will be admitted into evidence.

(Whereupon, Applicant's Exhibits Numbers 1, 2, and 3 were admitted in evidence.)

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Roberts, what is the location of the well that's on the extreme right of your cross-section?

A This is in the Empire-Penn Field to the southeast, approximately 4.5 miles, about five or six miles southeast of this unit area.

Q And approximately how many feet of the Atoka-Morrow pay sequence are present in that well?

A There's approximately, as indicated on the cross-section over there, about six hundred feet of total Atoka-Morrow

sequence in that area.

Q And how many wells on that cross-section are commercial wells, or have been commercial wells?

A The well on the right, of course, is an excellent well. I think it has produced, or will produce something between 30 and 40 bcf of gas.

MR. BUELL: It's been producing for several years and is still producing?

THE WITNESS: Right.

MR. BUELL: It's a one-well pool.

THE WITNESS: And the only other well, aside from Well No. 4, which was discussed previously, is Well No. 3, which is in the Buffalo-Penn Field to the north and a little bit west of our proposed unit. It also is productive out of these Atoka-Morrow Sands.

Q And it actually has less than 300 feet of Atoka-Morrow sand that you are anticipating?

A Yes. It has about 275 feet, as I read it from here.

MR. NUTTER: Are there any other questions of Mr. Roberts? You may be excused. Do you have anything further, Mr. Buell?

MR. BUELL: Excuse me. Let me go off the record a minute. There's some confusion whether Mr. Roberts, in his

testimony as to the requirement of this exploratory well, said 9400 feet or 9800 feet. If he said 9400 feet, I'd like for the reporter to change that to 9800 feet.

MR. NUTTER: The unit agreement does require a well to be drilled to 9800, correct?

MR. BUELL: Yes, or until the Mississippian is encountered or unless commercial production is obtained, or however -- there's some other exceptions to that, but that's the gist of the requirement.

MR. NUTTER: All right, sir. Does anyone have anything they wish to offer in Case Number 3863? We will take the case under advisement.

I N D E X

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STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, CHARLOTTE MACIAS, Court Reporter in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Charlotte Macias
 Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings of the Executive hearing of Case No. 3863 heard by me on 9/25, 1968.
[Signature]
 New Mexico Oil Conservation Commission

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
September 25, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of Pan American Petroleum
Corporation for a unit agreement,
Eddy County, New Mexico.

)
)
)
) Case No. 3863
)
)
)

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING

MR. NUTTER: We'll call case 3863.

MR. HATCH: Case 3863, application of Pan American Petroleum Corporation for a unit agreement, Eddy County, New Mexico.

MR. BUELL: For Pan American Petroleum Corporation, Guy Buell. We have two witnesses, Mr. Examiner. We also have a rather large cross-section which, with the Examiner's permission, we'd like to put it on the board directly behind the Examiner.

MR. NUTTER: Very well. I might observe at this point that we have an entrance on your behalf by Atwood and Malone, Roswell.

MR. BUELL: Thank you, sir.

(Whereupon, Applicant's Exhibits Numbers 1, 2, and 3 were marked for identification.)

MR. BUELL: Here's a complete set of exhibits, Mr. Examiner, all stamped, including a folder of the cross-section.

MR. HATCH: Both witnesses can stand and be sworn.

(Whereupon, witnesses were sworn.)

JACK D. ANDERSON

called as a witness, and having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Anderson, would you state your name, by whom you are employed, in what capacity, and in what location, please, sir?

A My name is Jack D. Anderson. I am employed by Pan American Petroleum Corporation in Fort Worth, Texas. I'm a landman.

Q In connection with your employment with Pan American, are you familiar with the unit agreement and the efforts to form the North Crow Flats Exploratory Unit?

A Yes, sir, I am.

Q Just what is that unit, Mr. Anderson?

A It's a unit that's comprised of federal, state, and fee acreage. It is an exploratory-type unit. It's the same form that has been used in this area, and has been approved by the U.S.G.S. Office, and also the Commissioner's office.

Q In that connection, let me direct your attention to what has been identified as our exhibit number 1. Is that a copy of the unit agreement?

A Yes, sir, it is.

Q Is there anywhere we can turn to in this agreement and see a map or plat of the surface area that is included in

the unit?

A Yes, sir. Our exhibit A to the unit agreement is an outline of the unit area.

Q Do you recall what the total acreage within the unit boundaries is?

A Yes. It contains 6,418.64 acres. That's located in Township 16 south, Range 28 east.

Q Is it all in the northeast quarter of that Township?

A Yes, sir, it is.

Q Do you have a breakdown on the various types of acreage that are included within the unit?

A Yes, sir. Within the unit outlined, there are federal acreage, 3,674.25 which represents 57.25 per cent of the unit area. State acreage, 2,584.39 acres, which represents 40.26 per cent. Fee acreage is 160 acres. This represents 2.49 per cent.

Q Will you state for the record, Pan American's acreage in this unit, and its per cent of the total acreage?

A Pan American owns 4,339.60 acres, which represents 67.16 per cent.

Q Now, as of this time, from the standpoint of the working interests or operators, what per cent is committed to the North Crow Flats Unit?

A Of this unit, there are 6,038.72 acres committed, which represents 94.08 per cent.

Q How many tracts are not committed?

A There are two tracts which are not committed. They're referred to on Exhibit A as tracts 10 and 20. Tract 10 is owned by Superior, which contains 219.92 acres. Tract 20 is owned by Tenneco, which contains 160 acres. This gives a total of 379.92 acres, or 5.92 per cent of the unit area, which is uncommitted.

Q Now, on the copy of the unit agreement and the attachment, Exhibit A to that agreement, that the Examiner has, how have you distinguished those two tracts, just for his ready-reference?

A We have distinguished those by shading them in green.

Q And you've done that on the Examiner's copy?

A On the Examiner's copy only.

Q Let me ask you this: in the event these two operators should subsequently change their minds, does the unit agreement provide for a subsequent joinder?

A Yes, sir, it does.

Q Let me ask you this from a landman's standpoint: do you feel that we have sufficient acreage committed to this unit at this time to give us effective and efficient control over

operations in the unit?

A Yes, sir, I certainly do.

Q Now, we have federal and state lands involved. Let me ask you this: have you discussed this unit with the U.S.G.S. and the Land Commissioner?

A Yes, sir. We've discussed it with both of the agencies. We've discussed it with U.S.G.S. in Roswell. We also made a trip into Santa Fe to discuss it with the Commissioner.

Q Let's take the U.S.G.S., first. What is the status of this unit with respect to the U.S.G.S.?

A We have made our preliminary approach to the U.S.G.S. Then we followed that with a request for preliminary approval. This request has been processed by the Roswell office, and on the 13th of September, it was forwarded to Washington for preliminary approval.

Q Based on your experience with matters like this in the past, would you expect preliminary approval to return from Washington very shortly?

A Yes, sir, we would.

Q Is it the policy of the Land Commissioner of the State of New Mexico not to give preliminary approval until the U.S.G.S. has done so?

A Yes, sir, this is what we have been advised, that they would prefer to wait until the U.S.G.S. has granted their preliminary approval. We have made application for preliminary approval to furnish them with the application for preliminary approval, but we understand they will wait on the U.S.G.S.

Q Based on your experience with the Land Commissioner in units similar to this in this general area in the past, would you anticipate any trouble in obtaining preliminary approval from the Land Commissioner?

A No, sir, we do not.

Q As you know, Mr. Anderson, normally, it's Pan American's policy to wait until we have written preliminary approval before we request a hearing. Why did we change that policy with regard to this exploratory unit?

A In this particular case, there's an 80-acre tract contained in the unit outlined that has an early expiration date and, for this reason, we felt that it would be best for us to go ahead and present this case at this time.

Q So this just answers to the expediting of all the necessary requirements to making the unit effective. We've requested the hearing prior to having written preliminary approval?

A Yes, sir, that's correct.

Q Will you furnish written preliminary approval of both the U.S.G.S. and the Land Commission to the Commissioner to the attention of the Examiner when it is received by Pan American?

A Yes, sir, we will.

Q Do you have anything else that you would care to add at this time, Mr. Anderson?

A No, sir, I don't believe so. I believe that covers it.

MR. BUELL: May it please the Examiner, that's all we have at this time of Mr. Anderson by way of direct testimony.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Anderson, the early expiration of the lease, I presume, would be the Tract 9, which expires November the 18th?

A That's correct.

Q Have the two operators, who aren't committed, being Superior and Tenneco, declined or they just haven't replied?

A They have declined by letter.

MR. NUTTER: Are there any other questions of Mr. Anderson? He may be excused.

MR. BUELL: Mr. Roberts, please.

J. W. ROBERTS

called as a witness, and having been first duly sworn, was

examined and testified as follows:

DIRECT EXAMINATION

BY MR. BUELL:

Q Mr. Roberts, would you state your complete name, by whom you are employed, in what capacity and in what location, please, sir?

A I'm Wayland Roberts, employed by Pan American Petroleum Corporation in Fort Worth, and my job is Project Geologist.

Q Now, you've testified at previous Commission hearings and your qualifications as a geologist are a matter of public record, are they not?

A That's correct.

Q I will ask you this: in the area of the North Crow Flats Unit, that area is under your supervision, is it not?

A That's correct.

Q And you've made many studies of your own in this area?

A That's correct.

Q Now, you heard our reference to exhibit 1, the unit agreement. Does that agreement contain a requirement with respect to drilling and exploratory well on the unit?

A Yes, sir. The provision calls for a 9400-foot, top of the Mississippi Siliceous Test at a location tentatively, or as we find on exhibit 2, by the red dot, in the northwest quarter

of Section 11, unless commercial production is established at a lesser depth.

Q Let me clear this up. I don't believe the unit agreement requires that the wells be drilled at this specific location. It just requires that a well be drilled and that's where we propose to drill it, is that right?

A That's correct.

Q What is your primary target in this area?

A Our primary target in here are the Atoka-Morrow Sandstones of the lower Pennsylvanian.

Q Let's discuss the geology of the Atoka-Morrow Sands, and in that connection, let me direct your attention to what has been identified as our exhibit number 2. What is that exhibit?

A Well, it shows the general area of the North Crow Flats Unit and it shows also the outline of the proposed unit by black tape here.

Q Would you locate, generally, the North Crow Flat Unit for the Examiner?

A It's approximately 15 miles northeast of Artesia in Eddy County.

Q Now, with respect to the geology of our primary target, the Atoka-Morrow Sandstone, what does exhibit 2 reflect?

A We have included on exhibit 2 some results of a fairly extensive regional study here dealing with these sands of the lower Pennsylvanian. On the basis of these regional studies, we found that there appears to be a critical relationship between isopachous thickness and structural nosing as regards sand development within this part of the section.

On the exhibit, we have transferred some of this regional data, to be specific, in this case. We have, here, a thickness line of the Atoka-Morrow sequence: 300 feet thickness line. Also, on the map, we have included the minus 5,000 foot structural datum contour line which is contoured as a datum at the base of the Strawn or the top of the Atoka-Morrow, in this case.

Q Looking at exhibit 2, it appears that our proposed location is almost in the center of this exploratory unit?

A That's correct.

Q Just about halfway between your 5,000 foot structural contour line and your 300 foot thickness line?

A That's correct.

Q What is the significance of the wavy line in the northwest corner of the unit that you shaded with orange?

A As identified on the exhibit 2 and as determined by our regional studies, this approximates the northwest limit of significant sandstone development within this particular part of

the section.

Q Sir, do you have any comments about the limits, the possible limits -- of course, we are talking about an exploratory unit in a wildcat area -- but, about the possible limits to the south and to the east?

A Again, this is based on our regional studies. We feel that this critical thickness here of about 300 feet within this interval represents the area in which, or the interval in which the best sands will be developed.

Q Are you ready now to discuss your cross-section?

A Yes.

Q Will you put it on the board directly behind the Examiner? If it aids you, you might go over there and I'll ask you to speak a little louder so that the reporter can hear you.

What is exhibit 3?

A This is a regional stratigraphic cross-section that extends from the northwest on the left to the southeast on the right and it projects over this way about twenty miles.

Q Let me ask you this: actually, within the North Crow Flats Exploratory Unit, there is no well that has been drilled to this depth, has there?

A Within the unit outlined, no.

Q So have you taken logs from wells outside the unit and projected them on a straight line basis into the unit?

A That's correct.

Q Would you go to the Examiner and point on exhibit 2 the general area that you have projected this section to, as far as the unit is concerned?

A The cross-section would project approximately down to the center of the unit with a single well located in the lower lefthand corner of the map, being one of the wells included on the cross-section. It's this well right here (indicating).

MR. NUTTER: That's the well, the second from the right?

THE WITNESS: That's correct.

Q Speak up just a little, Mr. Roberts.

A I'm sorry.

Q Now, with that basic understanding, would you please state for the record and for the Examiner's benefit what this cross-section reflects from the standpoint of the geology of the Atoka-Morrow that we expect to encounter in our exploratory unit?

A The interval that we've included in our isopac studies is between this datum line, a structural point that we

used on our structural mapping, and the lower limit of that line is this, (indicating), to conform with the surface down here. You will note that in this particular well here, and then these wells in general in here, we have thicknesses that range from 400 to 300 to 200 feet in thickness.

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on this unit?

A Very much so.

Q Do you have any other comments about this section, Mr. Roberts?

A No.

Q All right, sir. Do you want to come back to your chair? Of course, we all realize that this is wildcat area. Let me ask you this: do you feel, based on your study of this area that you have included within the confines of this exploratory unit, the acreage that could possibly be productive from this Atoka-Morrow Sandstone?

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A Yes.

Q Do you think that small, uncommitted interest will in any way affect the efficient development and exploration conducted by Pan American on this unit?

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Q Now, let me ask you this: we've been talking about the Atoka-Morrow, which is rather deep in this area. That's

our primary target. We're going to have to penetrate other formations on the way down, aren't we?

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Q Mr. Roberts, in your opinion, will the approval of our application by the Commission be in the interest of conservation as well as protecting the correlative rights of the committed interest owners as well as the non-committed interest owners in the North Crow Flats Unit?

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A I believe not.

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MR. BUELL: Yes, sir.

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