

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 268
Lubbock, Texas

File: CDF-6397-416

Subject: Amended Plan of Development for 1962
Greenwood Pre-Grayburg Unit
Lea and Eddy Counties, New Mexico

Director (6)
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands (3)
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

Oil Conservation Commission of (3)
New Mexico
P. O. Box 871
Santa Fe, New Mexico

All Committed Working Interest
Owners in Unit Area
(See Attached Addressee List)

Gentlemen:

In compliance with Section 10 of the Greenwood Pre-Grayburg Unit Agreement dated August 26, 1955 and approved by the Survey on April 23, 1956, Pan American Petroleum Corporation, as Unit Operator, on behalf of itself and the other working interest owners, hereby submits for your approval an amended Plan of Development for 1962.

History of Past Development - Well No. 1, located in the SE/4 of Section 27, T-18-S, R-31-E, is completed in the Siluro-Devonian Formation. The First Enlargement of the Siluro-Devonian Participating Area was approved February 15, 1960, and became effective July 1, 1958. The Siluro-Devonian Participating Area now comprises the W/2 of Section 26, the E/2 of Section 27, the NE/4 of Section 34, and the NW/4 of Section 35, all land being in T-18-S, R-31-E, comprising a total of 960 acres.

Well No. 2 was completed in the Pennsylvanian Formation at a location in the SW/4 of the NE/4 of Section 34, T-18-S, R-31-E and a Pennsylvanian Participating Area comprising 1440 acres has been approved.

Well No. 3 was completed as a Siluro-Devonian gas well on July 28, 1958, at a location in the SE/4 of the NE/4 of Section 27, T-18-S, R-31-E. Dual completion of this well as a Wolfcamp (oil) - Siluro-Devonian (gas) well was attempted during early 1961; however, a bridging tool was lost in the hole at a depth of 10,214 feet above the Siluro-Devonian perforations. Due to the anticipated expense to recover this tool, the Siluro-Devonian was temporarily abandoned and the well was subsequently completed as a dual Wolfcamp (oil) - Bone Springs (oil) well on April 6, 1961.

Well No. 4, located in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E, was completed in the Cherry Canyon Formation of the Delaware Mountain Group on January 30, 1959. An Initial Participating Area for the Delaware Formation comprising 40 acres in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E, has been approved effective January 30, 1959.

Well No. 5, located in the SE/4 NW/4 of Section 27, was dry and abandoned in the Cherry Canyon Formation in July 1959.

Continental Oil Company completed during 1960 a well, located in the SW/4 of the SE/4 of Section 26, T-18-S, R-31-E, as a non-commercial gas well in the Pennsylvanian Formation. This well was drilled under the provisions of Section 13 of the Unit Agreement.

Well No. 7, located 1980' from the north line and 660' from the east line of Section 2, T-19-S, R-31-E, was recently drilled to a total depth of 12,794 feet and has been triple completed in the Lusk Strawn (oil) - Undesignated Wolfcamp (oil) and Undesignated Bone Spring (oil) pools. Participating areas have not yet been established for Greenwood Unit No. 7 for these reservoirs.

Proposed Additional Wells - By separate correspondence Pan American has proposed that the Greenwood Pre-Grayburg Unit will be expanded to include certain acreage now outside the Unit in the vicinity of Well No. 7. Contingent upon approval of this expansion, it is now proposed that Well No. 8 be drilled at a location 660 feet from the south and west lines of Section 7, T-19-S, R-32-E, as a 12,400 foot Mississippian test. It is further proposed that additional drilling during 1962 will be contingent upon results at Well No. 8.

Well Casing Program - The well casing program will include such surface casing and other casing as may be required by the Director, the Commissioner and the Commission, or as set forth in approvals of the applicable USGS and State of New Mexico forms. The producing string of casing may be set and cemented on top of, partially through, or completely through the producing zone.

Offset Obligations - Appropriate and adequate measures will be taken to prevent drainage of unitized substances from lands subject to the Greenwood Pre-Grayburg Unit Agreement, or pursuant to applicable regulations, fair and reasonable compensatory royalty will be paid as provided in Section 17 of said Agreement.

Further Development - This Plan of Development shall constitute the drilling obligations of the Unit Operator under the terms of the Greenwood

Pre-Grayburg Unit Agreement for the calendar year ending December 31, 1962. Before this plan expires, another plan for further development of the Unit Area will be submitted.

Modifications - It is understood that this Plan of Development is dependent upon certain information to be obtained prior to drilling and upon other contingencies such as availability of well casing; therefore, this Plan of Development may be modified to meet changing conditions or to protect the interest of all parties to this Agreement.

Effective Date - This Plan of Development shall be effective approximately July 1, 1962.

PAN AMERICAN PETROLEUM CORPORATION
Unit Operator

BY: 
Neil S. Whitmore
District Superintendent

WJS:lam:es

APPROVED _____ DATE _____
Supervisor, United States Geological Survey

APPROVED _____ DATE _____
Commissioner of Public Lands

APPROVED _____ DATE _____
Oil Conservation Commission

ADDRESSEE LIST
GREENWOOD PRE-GRAYBURG UNIT

Mr. W. A. Mead
Continental Oil Company
825 Petroleum Building
Roswell, New Mexico

Mr. O. F. Featherstone
Petroleum Building
Roswell, New Mexico

Mobil Oil Company
Box 2405
Hobbs, New Mexico

Mr. Fred S. Wright, Jr.
Mobil Oil Company
Box 633
Midland, Texas

Sinclair Oil and Gas Company
Box 1470
Midland, Texas

Mr. R. T. Maxwell
Texaco, Inc.
Box 3109
Midland, Texas

Carper Drilling Company
Carper Building
Artesia, New Mexico

6-8-62
es

PAN AMERICAN PETROLEUM CORPORATION

Lubbock, Texas
June 30, 1962

AFE 20,579
Contract No. 32,714
and 52,334
Greenwood Pre-Grayburg Unit
Eddy and Lea Counties
New Mexico

The Director
United States Geological Survey
Washington 25, D. C.

Through: John A. Anderson
Regional Oil and Gas Supervisor
United States Geological Survey
Roswell, New Mexico

Mr. E. S. (Johnny) Walker
Commissioner of Public Lands
State of New Mexico
Santa Fe, New Mexico

Gentlemen:

By letter dated May 14, 1962, filed with the Regional Oil and Gas Supervisor at Roswell, New Mexico, and the Commissioner of Public Lands of the State of New Mexico, Pan American Petroleum Corporation, as Unit Operator, requested preliminary approval of a proposed expansion of the Greenwood Pre-Grayburg Unit area in Eddy and Lea Counties, New Mexico. The original Greenwood Pre-Grayburg Unit Area No. 14-08-001-2904, State Case No. 961, Order No. R-712 was originally approved on April 23, 1956.

By letter dated June 6, 1962, the Acting Director of the United States Geological Survey, and by letter dated May 28, 1962, the Commissioner of Public Lands of the State of New Mexico, have given their preliminary approval to the proposed expansion of the Greenwood Pre-Grayburg Unit area from 8,001.92 acres to 8,885.18 acres as set out in said preliminary application of May 14, 1962.

By a Notice of Proposed Expansion of the Greenwood Pre-Grayburg Unit dated May 28, 1962, Pan American, as the Unit Operator, requested the ratification and joinder of all of the working interest owners, lessee and lessor whose interests are affected. This Notice, in accordance with Section 2 of the Unit Agreement, also fixes the start of the thirty (30) day period which is provided for the submission to the Unit Operator of any objections to the proposed expansion.

One hundred per cent (100%) of the working interest owners have approved the proposed expansion of the Greenwood Pre-Grayburg Unit area as evidenced by the following Ratification and Joinder of Unit Agreement and Unit Operating Agreement instruments attached hereto, to-wit:

1. Ratification instrument dated June 18, 1962, executed by Shell Oil Company, subject to a certain Agreement to Drill a Test Well dated November 19, 1961, (intended to be November 29, 1961) between Pan American Petroleum Corporation, as Unit Operator, and Continental Oil Company et al.
2. Ratification instrument dated June 8, 1962, executed by Continental Oil Company, a corporation.
3. Ratification instrument dated June 7, 1962, executed by Carper Drilling Company, Inc., a corporation, which is made subject to said Agreement of November 29, 1961, as well as a letter agreement of August 26, 1957.
4. Ratification instrument executed by Pan American Petroleum Corporation, the Unit Operator, under date of June 26, 1962.

The above mentioned Agreement to Drill a Test Well dated November 29, 1961, between Pan American Petroleum Corporation, as Operator, and with Continental Oil Company, Shell Oil Company, and Carper Drilling Company, Inc., as Non-Operators, provides for the drilling of a certain test well at a location in the SE/4 of the NE/4 of Section 12, Township 19 South, Range 31 East, N.M.P.M. to a total depth of 12,000 feet below the surface or to such lesser depth at which the top of the Mississippian formation may be encountered. This well location offsets the land in the proposed expansion area of the Greenwood Pre-Grayburg Unit. This well was subsequently completed as a commercial producer as more fully set out in the Notice of Proposed Expansion of Greenwood Pre-Grayburg Unit dated May 28, 1962. A photocopy of said Agreement to Drill a Test Well is attached hereto and made a part hereof because this Agreement fixes the working interest ownership of Tracts 33 through 40 which are described in said Ratification instruments.

The remaining Ratification instruments executed by necessary parties to the expansion of said Greenwood Pre-Grayburg area are more fully described in a schedule of said instruments and recapitulation thereof, all of which are attached hereto and made a part hereof and identified as Exhibit "X". There is also included in said Exhibit "X" a true copy of said Notice of Proposed Expansion of Greenwood Pre-Grayburg Unit, dated May 28, 1962, which was sent to all parties entitled thereto. While some of the parties have not ratified the said expansion or replied to said Notice, no objection to the proposed expansion has been received by the Unit Operator. To further evidence the commitment status of the lands, a revised Exhibit "A" and "B" are submitted concurrently herewith.

The Unit Operator represents that it is of the opinion that there has been committed to the Unit Agreement and Unit Operating Agreement sufficient lands to afford effective control of unit operations in the expanded unit area and does hereby request the final approval of the Director of the United States Geological

Survey and the Commissioner of Public Lands of the State of New Mexico. The Unit Operator plans to immediately submit a plan of development for the expanded area which will include the drilling of a well at the tentative location in the SW/4 of the SW/4 of Section 7, Township 19 South, Range 32 East. The preliminary application for expansion letter addressed to you dated May 14, 1962, sets out the geological data pertaining to the expanded area. Since the automatic elimination provisions of the Unit Agreement are in effect requiring not more than ninety (90) days from completion of one well to the commencement of the next, your earliest attention to this final application will be appreciated in order that this unit may be expanded effective as of July 1, 1962.

Yours very truly,

PAN AMERICAN PETROLEUM CORPORATION

By _____

LCR:vca



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

JUN 6 - 1962

145541
Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Attention: Mr. John H. Thompson

Gentlemen:

Your application of May 14 filed on May 17 with the Regional Oil and Gas Supervisor, Roswell, New Mexico, requests preliminary approval of a proposed expansion of the Greenwood Pre-Grayburg unit area, Eddy and Lea Counties, New Mexico.

The Greenwood Pre-Grayburg unit was approved on April 23, 1956. Four producing wells have been completed in the unit area. Participating areas have been approved for the Siluro-Devonian, Pennsylvanian and Cherry Canyon.

The proposed expansion of 883.26 acres including 843.26 acres of Federal land and 40.00 acres of State land will increase the Greenwood Pre-Grayburg unit area from 8,001.92 acres to 8,885.18 acres, more or less. The expansion is regarded as acceptable on the basis of the geologic information accompanying your application, and your proposal to drill a Mississippian well in the expansion area.

Accordingly, no objection will be offered to the proposed expansion if accomplished in accordance with the applicable provisions in section 2 of the unit agreement within a reasonable period of time. When you progress to subsection 2(c), at least five copies of the application for final approval should be filed accompanied by joinders which must be obtained for all new lands in order for such lands to be considered committed regardless of whether any owner of a new tract is already committed as to an old tract.

The format of the sample exhibits attached to the 1961 reprint of the standard form should be closely followed in preparation of Exhibits A and B. Do not renumber old tracts. Add new tracts to end of list.

Very truly yours,

Acting Director

401
May 28, 1962

C
O
P
Y
Pan American Petroleum Corporation
Oil & Gas Building
Fort Worth, Texas

Re: Proposed Expansion of
the Greenwood Pre-Grayburg
Unit Area, Eddy and Lea
Counties, New Mexico

Attention: Mr. D. B. Mason, Jr.

Gentlemen:

The Commissioner of Public Lands has received your letter dated May 14, 1962, together with copies of Geological Memorandum Maps and other Exhibits which were presented to the United States Geological Survey in order to justify your request for your proposed expansion of 8,885.18 acres to the Greenwood Pre-Grayburg Unit Area.

The Commissioner of Public Lands gives preliminary approval to this proposed Expansion of the Greenwood Pre-Grayburg Unit Area, Eddy and Lea Counties, New Mexico.

Very truly yours,

E. S. JOHNNY WALKER
COMMISSIONER OF PUBLIC LANDS

ESW/mmr/v

cc: Mr. John H. Thompson
Pan American Petroleum Corp.
Lubbock, Texas

U. S. G.S. Roswell, N.M.
Oil Conservation Commission, Santa Fe, N.M.

PAN AMERICAN PETROLEUM CORPORATION

Lubbock, Texas

May 7, 1962

File: CDF-6269-416

Subject: Plan of Development For 1962
Greenwood Pre-Grayburg Unit
Lea and Eddy Counties,
New Mexico

Director
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commission of Public Lands
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

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

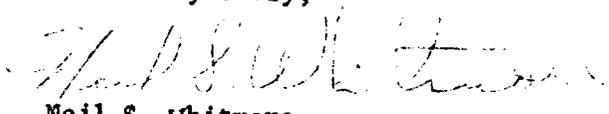
All Committed Working Interest
Owners in Unit Area
(See Attached Addressee List)

Gentlemen:

By our letter of December 26, 1961, File: CDF-6013-416, on the above subject, we furnished each of you copies of our Plan of Development for this Unit. This plan has now been approved by the USGS, the NMCC and the Commissioner of Public Lands.

We enclose herewith to complete your files, photostatic copies of Page 3 which have been approved by the appropriate agencies.

Yours very truly,


Neil S. Whitmore
District Superintendent

WJS:js

ADDRESSEE LIST
GREENWOOD PRE-GRAYBURG UNIT

W. A. Mead
Continental Oil Company
P. O. Box 1377
Roswell, New Mexico

Mr. O. F. Featherstone
Petroleum Building
Roswell, New Mexico

Mobil Oil Company
Box 2406
Hobbs, New Mexico
Attn: ~~Mr. C. H. Samples~~

Sinclair Oil and Gas Company
Fair Building
Fort Worth, Texas

Texaco, Inc.
B x 3109
Midland, Texas
Attn: ~~Mr. E. P. Munson, Jr.~~ *E. T. Maxwell*

Carper Drilling Company
Carper Building
Artesia, New Mexico

Mobil Oil Company
P. O. Box 633
Midland, Texas
Attn: Mr. Fred S. Wright, Jr.

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

961

May 1, 1962

Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Attention: Mr. Neil S. Whitmore

Re: 1962 Plan of Development
Greenwood Pre-Grayburg Unit,
Lea and Eddy Counties,
New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date approved the 1962 Plan of Development for the Greenwood Pre-Grayburg Unit, Lea and Eddy Counties, New Mexico, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Two approved copies of the plan are returned herewith.

Very truly yours,

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

ALP/JEK/ig

cc: **U. S. Geological Survey**
P. O. Box 1857
Roswell, New Mexico

State Land Office
Santa Fe, New Mexico

C
O
P
Y

April 30, 1962

Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Re: Plan of Development
for 1962, Greenwood
Pre-Grayburg Unit,
Lea and Eddy Counties,
New Mexico

Attention: Mr. Neil S. Whitmore

Gentlemen:

The Commissioner of Public Lands has of this date approved the 1962 Plan of Development for the Greenwood Pre-Grayburg Unit, Lea and Eddy Counties, New Mexico, subject to like approval by the U. S. Geological Survey and the Oil Conservation Commission.

We are enclosing two approved copies of this application. Please furnish us another copy when fully approved.

Very truly yours,

E. S. JOHNNY WALKER
COMMISSIONER OF PUBLIC LANDS

BY:
(Mrs.) Marian M. Rhea, Supervisor
Unit Division

ESW/mmr/v

cc: U. S. Geological Survey
P. O. Drawer 1857
Roswell, New Mexico

Attention: Mr. Anderson

Oil Conservation Commission
Santa Fe, New Mexico



UNITED STATES
DEPARTMENT OF THE INTERIOR

MAIN OFFICE GEOLOGICAL SURVEY

Drawer 1857

Alamogordo, New Mexico

1962 MAY 1

April 27, 1962

Pen American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Attention: Mr. Neil S. Whitmore

Gentlemen:

Your plan of development for 1962, dated December 26, 1961, for the Greenwood Pre-Grayburg unit, Lea and Eddy Counties, New Mexico, has been approved on this date subject to like approval by the appropriate State officials.

You advise that the Mississippian well proposed by your plan of development for the last half of 1961 was not commenced, and will be drilled under the 1962 plan.

Three approved copies of the plan are enclosed.

Very truly yours,

(Orig. Sgd.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

Copy to: Washington (w/cy of plan)
Artesia (w/cy of plan)
NMOCC, Santa Fe (ltr only) ✓
Com. of Pub. Lands, Santa Fe (ltr only)

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 268
Lubbock, Texas
December 26, 1961

File: CDF-6013-416

Subject: Plan of Development For 1962
Greenwood Pre-Grayburg Unit
Lea and Eddy Counties,
New Mexico

Director (6)
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands (3)
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

Oil Conservation Commission of (3)
New Mexico
P. O. Box 871
Santa Fe, New Mexico

All Committed Working Interest
Owners in Unit Area
(See Attached Addressee List)

Gentlemen:

In compliance with Section 10 of the Greenwood Pre-Grayburg Unit Agreement dated August 26, 1955 and approved by the Survey on April 23, 1956, Pan American Petroleum Corporation, as Unit Operator, on behalf of itself and the other working interest owners, hereby submits for your approval a Plan of Development for 1962.

History of Past Development - Well No. 1 located in the SE/4 of Section 27, T-18-S, R-31-E is completed in the Siluro-Devonian Formation. The First Enlargement of the Siluro-Devonian Participating Area was approved February 15, 1960 and became effective July 1, 1958. The Siluro-Devonian Participating Area now comprises the W/2 of Section 26, the E/2 of Section 27, the NE/4 of Section 34, and the NW/4 of Section 35, all land being in T-18-S, R-31-E, comprising a total of 960 acres.

Well No. 2 was completed in the Pennsylvanian Formation at a location in the SW/4 of the NE/4 of Section 34, T-18-S, R-31-E and a Pennsylvanian Participating Area comprising 1440 acres has been approved.

Well No. 3 was completed as a Siluro-Devonian gas well on July 28, 1958 at a location in the SE/4 of the NE/4 of Section 27, T-18-S, R-31-E. Dual completion of this well as a Wolfcamp (oil) - Siluro-Devonian (gas) well was attempted during early 1961; however, a bridging tool was lost in the hole at a depth of 10,214 feet above the Siluro-Devonian perforations. Due to the anticipated expense to recover this tool the Siluro-Devonian was temporarily abandoned and the well was subsequently completed as a dual Wolfcamp (oil) - Bone Springs (oil) well on April 6, 1961.

Well No. 4 located in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E was completed in the Cherry Canyon Formation of the Delaware Mountain Group on January 30, 1959. An Initial Participating Area for the Delaware Formation comprising 40 acres in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E has been approved effective January 30, 1959.

Well No. 5, located in the SE/4 NW/4 of Section 27 was dry and abandoned in the Cherry Canyon Formation in July, 1959.

Continental Oil Company completed during 1960 a well located in the SW/4 of the SE/4 of Section 26, T-18-S, R-31-E as a non-commercial gas well in the Pennsylvanian Formation. This well was drilled under the provisions of Section 13 of the Unit Agreement.

Proposed Additional Wells - Pan American's letter of June 12, 1961, File: CDF-5527-416, submitted a Plan of Development for the last half of 1961 which proposed drilling a Mississippian test in the NE/4 of Section 12, T-19-S, R-31-E, to be known as Greenwood Unit Well No. 7. At that time it was anticipated that an additional two months would be required to complete negotiations between the various participants. However, these negotiations have been prolonged due to numerous changes in the proposed Operating Agreement for Well No. 7. All parties are now substantially in agreement on this matter and it is anticipated that No. 7 will be drilled during the first quarter of 1962. It is proposed that further development in the Greenwood Pre-Grayburg Unit be contingent upon the results obtained at No. 7 and upon the performance of the Bone Spring completion in Well No. 3. This zone produced 3133 BO during October, 1961, as compared to an allowable of 3162 BO for that month.

No additional Cherry Canyon wells are proposed for 1962.

Well Casing Program - The well casing program will include such surface casing and other casing as may be required by the Director, the Commissioner and the Commission, or as set forth in approvals of the applicable USGS and State of New Mexico forms. The producing string of casing may be set and cemented on top of, partially through, or completely through the producing zone.

Offset Obligations - Appropriate and adequate measures will be taken to prevent drainage of unitized substances from lands subject to the Greenwood Pre-Grayburg Unit Agreement, or pursuant to applicable regulations, fair and reasonable compensatory royalty will be paid as provided in Section 17 of said Agreement.

December 26, 1961

- 3 -

File: CDF-6013-416

Further Development - This Plan of Development shall constitute the drilling obligations of the Unit Operator under the terms of the Greenwood Pre-Grayburg Unit Agreement for the calendar year ending December 31, 1962. Before this plan expires, another plan for further development of the unit area will be submitted.

Modifications - It is understood that this Plan of Development is dependent upon certain information to be obtained prior to drilling and upon other contingencies such as availability of well casing; therefore, this Plan of Development may be modified to meet changing conditions or to protect the interest of all parties to this Agreement.

Effective Date - This Plan of Development shall be effective January 1, 1962.

Dated: December 26, 1961

PAN AMERICAN PETROLEUM CORPORATION
Unit Operator

By Neil S. Whitmore
Neil S. Whitmore *NS*
District Superintendent

WJS: js

APPROVED _____ DATE _____
Supervisor, United States Geological Survey

APPROVED _____ DATE _____
Commissioner of Public Lands

APPROVED A. L. Porter, Jr. DATE 5-1-62
Oil Conservation Commission

ADDRESSEE LIST
GREENWOOD PRE-GRAYBURG UNIT

W. A. Mead
Continental Oil Company
825 Petroleum Building
Roswell, New Mexico

Mr. O. F. Featherstone
Petroleum Building
Roswell, New Mexico

Mobil Oil Company
Box 2406
Hobbs, New Mexico
Attn: Mr. C. H. Samples

Sinclair Oil and Gas Company
Fair Building
Fort Worth, Texas

Texaco, Inc.
Box 3109
Midland, Texas
Attn: Mr. E. P. Munson, Jr.

Carper Drilling Company
Carper Building
Artesia, New Mexico

Mobil Oil Company
P. O. Box 633
Midland, Texas
Attn: Mr. Fred S. Wright, Jr.

961

Drawer 1857
Roswell, New Mexico

August 7, 1961

Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Attention: Mr. Neil S. Whitmore

Gentlemen:

Your plan of development dated June 12, 1961, covering the last half of 1961, for the Greenwood Pre-Grayburg unit area, Lea and Eddy Counties, New Mexico, which proposes that the Mississippian test well be drilled during the last half rather than the first half of 1961, has been approved on this date subject to like approval by the appropriate State officials.

Three copies of the approved plan are enclosed.

Very truly yours,

(Orig. Sgd.) JOHN A. ANDERSON

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

Enclosures

Copy to: Washington (w/cy of plan)
Artesia (w/cy of plan)
MHOCC, Santa Fe (ltr only) ✓
Com. of Pub. Lands, Santa Fe (ltr only)

PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 268
Lubbock, Texas
June 12, 1961

File: CDF-5527-416

Subject: Plan of Development
For Last Half 1961
Greenwood Pre-Grayburg Unit
Lea and Eddy Counties,
New Mexico

Director (6)
United States Geological Survey
Drawer 1857
Roswell, New Mexico

Commissioner of Public Lands (3)
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

Oil Conservation Commission of (3)
New Mexico
P. O. Box 871
Santa Fe, New Mexico

All Committed Working Interest
Owners in Unit Area
(See Attached Addressee List)

Gentlemen:

In compliance with Section 10 of the Greenwood Pre-Grayburg Unit Agreement dated August 26, 1955 and approved by the Survey on April 23, 1956, Pan American Petroleum Corporation, as Unit Operator, on behalf of itself and the other working interest owners, hereby submits for your approval a Plan of Development for the remainder of 1961.

History of Past Development - Well No. 1 located in the SE/4 of Section 27 and Well No. 3 located in the SE/4 of the NE/4 of Section 27, T-18-S, R-31-E are completed in the Siluro-Devonian Formation. The First Enlargement of the Siluro-Devonian Participating Area was approved February 15, 1960 and became effective July 1, 1958. The Enlarged Siluro-Devonian Participating area now comprises the W/2 of Section 26, the E/2 of Section 27, the NE/4 of Section 34, and the NW/4 of Section 35, all land being in T-18-S, R-31-E, comprising a total of 960 acres.

Well No. 2 was completed in the Pennsylvanian Formation at a location in the SW/4 of the NE/4 of Section 34, T-18-S, R-31-E and a Pennsylvanian Participating Area comprising 1440 acres has been approved.

Well No. 3 was completed as a Siluro-Devonian gas well on July 28, 1958 at a location in the SE/4 of the NE/4 of Section 27, T-18-S, R-31-E. In accordance with the 1961 Plan of Development which was filed by letter dated December 30, 1961, File: WJS-6035-416,

June 12, 1961

- 2 -

File: CDF-5527-416

operations were commenced on January 20, 1961 to dually complete this well as a Siluro-Devonian (gas) - Wolfcamp (oil) well. The Wolfcamp was successfully tested; however, a bridging tool was lost in the hole at a depth of 10,214 feet above the Siluro-Devonian perforations. Due to the anticipated expense to recover this tool the Siluro-Devonian was temporarily abandoned and the well was subsequently completed as a dual Wolfcamp (oil) - Bone Springs(oil) well on April 6, 1961.

Well No. 4 located in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E was completed in the Cherry Canyon Formation of the Delaware Mountain Group on January 30, 1959. An Initial Participating Area for the Delaware Formation comprising 40 acres in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E has been approved effective January 30, 1959. Well No. 5, located in the SE/4 NW/4 of this Section was dry and abandoned in the Cherry Canyon Formation in July, 1959.

Continental Oil Company completed during 1960 a well located in the SW/4 of the SE/4 of Section 26, T-18-S, R-31-E as a non-commercial gas well in the Pennsylvanian Formation. This well was drilled under the provisions of Section 13 of the Unit Agreement.

Proposed Additional Wells - By letter dated December 30, 1960, File: WJS-6035-416, the Unit Operator proposed dually completing Greenwood No. 3 and drilling a Mississippian test in the NE/4 of Section 12, T-19-S, R-31-E. This plan was approved by the Regional Oil and Gas Supervisor of the United States Geological Survey, the Commissioner of Public Lands for the State of New Mexico, and the Secretary-Director of the New Mexico Oil Conservation Commission with all approvals being limited to the first six months of 1961.

Dual completion of Well No.3 has been accomplished as discussed above. Extensive negotiations have been conducted between the various proposed participants regarding the Mississippian test and an Operating Agreement for this well. Carper Drilling Company, lessee of the proposed drillsite, is now performing the legal work necessary to perfect its title on this lease. It is anticipated that an additional two or more months will be required for this work. The Unit Operator therefore proposes that the Plan of Development for the last half of 1961 provide that the Mississippian test well be drilled during the last half of 1961 rather than be commenced during the first half of 1961 as now required under the limited approvals of the USGS, the NMOC and the State Land Office.

No additional Cherry Canyon wells are proposed for the remainder of 1961.

Well Casing Program - The well casing program will include such surface casing and other casing as may be required by the Director,

June 12, 1961

File: CDF-5527-416

the Commissioner and the Commission, or as set forth in approvals of the applicable USGS and State of New Mexico forms. The producing string of casing may be set and cemented on top of, partially through, or completely through the producing zone.

Offset Obligations - Appropriate and adequate measures will be taken to prevent drainage of unitized substances from lands subject to the Greenwood Pre-Grayburg Unit Agreement, or pursuant to applicable regulations, fair and reasonable compensatory royalty will be paid as provided in Section 17 of said Agreement.

Further Development - This Plan of Development shall constitute the drilling obligations of the Unit Operator under the terms of the Greenwood Pre-Grayburg Unit Agreement for the calendar year ending December 31, 1961. Before this plan expires, another plan for further development of the unit area will be submitted.

Modifications - It is understood that this Plan of Development is dependent upon certain information to be obtained prior to drilling and upon other contingencies such as availability of well casing; therefore, this Plan of Development may be modified to meet changing conditions or to protect the interest of all parties to this Agreement.

Effective Date - This Plan of Development shall be effective July 1, 1961.

Dated: June 12, 1961

PAN AMERICAN PETROLEUM CORPORATION
Unit Operator

By 
Neil S. Whitmore
District Superintendent

WJS: js

APPROVED _____ DATE _____
Supervisor, United States Geological Survey

APPROVED _____ DATE _____
Commissioner of Public Lands

APPROVED _____ DATE _____
Oil Conservation Commission

ADDRESSEE LIST
GREENWOOD PRE-GRAYBURG UNIT

W. A. Mead
Continental Oil Company
825 Petroleum Building
Roswell, New Mexico

Mr. O. F. Featherstone
Petroleum Building
Roswell, New Mexico

Mobil Oil Company
Box 2406
Hobbs, New Mexico
Attn: Mr. C. H. Samples

Sinclair Oil and Gas Company
Fair Building
Fort Worth, Texas

Texaco, Inc.
Box 3109
Midland, Texas
Attn: Mr. E. P. Munson, Jr.

Carper Drilling Company
Carper Building
Artesia, New Mexico

Mobil Oil Company
P. O. Box 633
Midland, Texas
Attn: Mr. Fred S. Wright, Jr.



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico

April 10, 1961

Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Attention: Mr. Neil S. Whitmore

Gentlemen:

Reference is made to our letter of March 29, 1961, by which your plan of development for 1961 for the Greenwood Pre-Grayburg unit area, Lea and Eddy Counties, New Mexico, was approved subject to like approval by the appropriate State officials. This office inadvertently overlooked the fact that, prior approvals by the New Mexico Oil Conservation Commission and the New Mexico Commissioner of Public Lands were limited to a six month period beginning January 1, 1961. Accordingly, Geological Survey approval previously granted by our memorandum of March 29, 1961, is hereby amended and limited to the six month period beginning January 1, 1961.

Very truly yours,

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

Cop- to: Washington
Artesia
NMOCC, Santa Fe



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Drawer 1857
Roswell, New Mexico

March 29, 1961

Pan American Petroleum Corporation
P.O. Box 268
Lubbock, Texas

Attention: Mr. Neil S. Whitmore

Gentlemen:

Your plan of development for 1961, dated December 30, 1960, for the Greenwood Pre-Grayburg unit area, Lea and Eddy Counties, New Mexico, which proposes the drilling of a Mississippian test well and the dual recompletion of unit well No. 3 in the Wolfcamp formation, has been approved on this date subject to like approval by the appropriate State officials.

Three approved copies of the plan are enclosed.

Very truly yours,

[Signature]

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

Copy to: Washington (w/cy of plan)
Artesia (ltr. only, copy previously retained)
NMOCC, Santa Fe (ltr. only)

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

1/24/61

January 24, 1961

Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Attention: Mr. Neil S. Whitmore

Re: 1961 Plan of Development
Greenwood Pre-Grayburg Unit
Lea & Eddy Counties, New Mexico

Gentlemen:

This is to advise that the New Mexico Oil Conservation Commission has this date granted limited approval to the 1961 Plan of Development for the Greenwood Pre-Grayburg Unit, Lea and Eddy Counties, New Mexico.

The approval of the Commission is limited to a six month period beginning January 1, 1961, subject to like approval by the United States Geological Survey and the Commissioner of Public Lands of the State of New Mexico.

Two approved copies of the plan are returned herewith.

Very truly yours,

A. L. PORTER, Jr.
Secretary-Director

ALP/JEK/ig

cc: US Geological Survey
Roswell, New Mexico
Commissioner of Public Lands
Santa Fe, New Mexico

January 20, 1961

Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Re: 1961 Plan of Development
Greenwood Pre-Grayburg Unit
Lea and Eddy Counties, New Mexico

Attention: Mr. Neil S. Whitmore

Content:

We are enclosing three copies of the 1961 Plan of Development for the Greenwood Pre-Grayburg Unit Area, which was approved by the Commissioner of Public Lands as of January 20, 1961.

The Commissioner of Public Lands is limiting his approval to a six month period beginning 1961, subject to like approval by the US Geological Survey and the Oil Conservation Commission.

Very truly yours,

E. S. (JOHNNY) WALKER
Commissioner of Public Lands

ESW/mar/s
cc:

US Geological Survey
Roswell, New Mexico

Oil Conservation Commission
Santa Fe, New Mexico

C

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P

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PAN AMERICAN PETROLEUM CORPORATION

P. O. Box 268
 Lubbock, Texas
 December 30, 1960

100 100 15

File: WJS-6035-416

Subject: 1961 Plan of Development
 Greenwood Pre-Grayburg Unit
 Lea and Eddy Counties,
New Mexico

Director (6)
 United States Geological Survey
 c/o Regional Oil and Gas Supervisor
 Roswell, New Mexico

Commissioner of Public Lands (3)
 The State of New Mexico
 Capitol Annex Building
 Santa Fe, New Mexico

Oil Conservation Commission of (3)
 The State of New Mexico
 Capitol Annex Building
 Santa Fe, New Mexico

All Committed Working Interest
 Owners in Unit Area
 (See Attached Addressee List)

Gentlemen:

In compliance with Section 10 of the Greenwood Pre-Grayburg Unit Agreement dated August 26, 1955 and approved by the Survey on April 23, 1956, Pan American Petroleum Corporation, as unit operator, on behalf of itself and the other working interest owners, hereby submits for your approval the 1961 Plan of Development.

History of Past Development - Well No. 1 located in the SE/4 of Section 27 and Well No. 3 located in the SE/4 of the NE/4 of Section 27, T-18-S, R-31-E are completed in the Siluro-Devonian Formation. The First Enlargement of the Siluro-Devonian Participating Area was approved February 15, 1960 and became effective July 1, 1958. The Enlarged Siluro-Devonian Participating Area now comprises the W/2 of Section 26, the E/2 of Section 27, the NE/4 of Section 34, and the NW/4 of Section 35, all land being in T-18-S, R-31-E and comprising a total of 960 acres.

Well No. 2 was completed in the Pennsylvanian Formation at a location in the SW/4 of the NE/4 of Section 34, T-18-S, R-31-E and a Pennsylvanian Participating Area comprising 1440 acres has been approved.

Well No. 4 located in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E was completed in the Cherry Canyon Formation of the Delaware Mountain Group on January 30, 1959. An Initial Participating Area for the Delaware Formation comprising 40 acres in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E has been approved effective January 30, 1959. Well No. 5, located in the SE/4 NW/4 of this Section was dry and abandoned in the Cherry Canyon Formation in July, 1959.

Continental Oil Company completed during 1960 a well located in the SW/4 of the SE/4 of Section 26, T-18-S, R-31-E as a non-commercial gas well in the Pennsylvanian Formation. This well was drilled under the provisions of Section 13 of the Unit Agreement.

Proposed Additional Wells - By letter dated December 15, 1960, File: WJS-6024-416, Pan American Petroleum Corporation, as Unit Operator, has presented an Amended 1960 Plan of Development which proposes commencement of a Mississippian test in the NE/4 of Section 12, T-19-S, R-31-E, prior to the end of 1960 and dual recompletion of Well No. 3 as a Siluro-Devonian (gas) - Wolfcamp (oil) well. The work proposed in the Amended 1960 Plan of Development has not been commenced, consequently, it is now proposed that this work be performed in 1961 and that further development in 1961 be contingent on results of the Mississippian test and the Wolfcamp recompletion in Well No. 3.

No additional Cherry Canyon wells are proposed for 1961.

Well Casing Program - The well casing program will include such surface casing and other casing as may be required by the Director, the Commissioner and the Commission, or as set forth in approvals of the applicable U.S.G.S. and State of New Mexico forms. The producing string of casing may be set and cemented on top of, partially through or completely through the producing zone.

Offset Obligations - Appropriate and adequate measures will be taken to prevent drainage of unitized substances from lands subject to the Greenwood Pre-Grayburg Unit Agreement, or pursuant to applicable regulations, fair and reasonable compensatory royalty will be paid as provided in Section 17 of said Agreement.

Further Development - This Plan of Development shall constitute the drilling obligations of the Unit Operator under the terms of the Greenwood Pre-Grayburg Unit Agreement for the calendar year ending December 31, 1961. Before this plan expires, another plan for further development of the unit area will be submitted.

Modifications - It is understood that this Plan of Development is dependent upon certain information to be obtained prior to drilling and upon other contingencies such as availability of well casing; therefore, this Plan of Development may be modified to meet changing conditions or to protect the interest of all parties to this Agreement.

Effective Date - This Plan of Development shall be effective
January 1, 1961.

Dated: December 30, 1960.

PAN AMERICAN PETROLEUM CORPORATION
Unit Operator



Neil S. Whitmore
District Superintendent

WJS:js

APPROVED _____ DATE _____
Supervisor, United States Geological Survey

APPROVED _____ DATE _____
Commissioner of Public Lands

APPROVED  DATE Jan 24, 1961
Oil Conservation Commission

MAILING LIST OF COMMITTED WORKING
INTEREST OWNERS
GREENWOOD PRE-GRAYBURG UNIT
LEA AND EDDY COUNTIES, NEW MEXICO

Continental Oil Company
825 Petroleum Building
Roswell, New Mexico
Attn: Mr. W. A. Mead

Mr. O. F. Featherstone
Petroleum Building
Roswell, New Mexico

Mobil Oil Company
Box 2406
Hobbs, New Mexico
Attn: Mr. C. H. Samples

Mobil Oil Company
P. O. Box 633
Midland, Texas
Attn: Mr. Fred S. Wright, Jr.

Sinclair Oil and Gas Company
P. O. Box 1470
Midland, Texas

Texaco, Inc.
P. O. Box 3109
Midland, Texas
Attn: Mr. E. P. Munson, Jr.

Carper Drilling Company
Carper Building
Artesia, New Mexico



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 6721
Roswell, New Mexico

December 30, 1960

Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Attention: Mr. Neil S. Whitmore

Gentlemen:

Your amended 1960 plan of development dated December 15, 1960, for the Greenwood Pre-Grayburg unit area, Lea and Eddy Counties, New Mexico, proposing the drilling of a Mississippian test well and the dual recompletion of unit well No. 3 in the Wolfcamp formation, has been approved on this date subject to like approval by the appropriate State officials.

Three approved copies of the amended plan are enclosed.

Very truly yours,

EDWIN M. THOMASON
Acting Regional Oil and Gas Supervisor

Copy to: Washington (w/ey of plan)
Artesia (w/ey of plan)
NMOCC, Santa Fe (1rt only)

PAN AMERICAN PETROLEUM CORPORATION

December 15, 1960
P. O. Box 268
Lubbock, Texas

File: WJS-6024-416

Subject: Amended 1960 Plan of Development
Greenwood Pre-Grayburg Unit
Lea and Eddy Counties,
New Mexico

Director (6)
United States Geological Survey
c/o Regional Oil and Gas Supervisor
Roswell, New Mexico

Commission of Public Lands (3)
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

Oil Conservation Commission of (3)
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

All Committed Working Interest
Owners in Unit Area
(See Attached Addressee List)

Gentlemen:

In compliance with Section 10 of the Greenwood Pre-Grayburg Unit Agreement dated August 26, 1955 and approved by the Survey on April 23, 1956, Pan American Petroleum Corporation, as unit operator, on behalf of itself and the other interested parties, hereby submits for your approval an Amended Plan of Development for the remainder of 1960.

History of Past Development - Well No. 1 located in the SE/4 SE/4 of Section 27 and Well No. 3 located in the SE/4 of the NE/4 of Section 27, T-18-S, R-37-E are completed in the Siluro-Devonian Formation. The First Enlargement of the Siluro-Devonian Participating Area was approved February 15, 1960 and became effective July 1, 1958. The Enlarged Siluro-Devonian Participating Area now comprises the W/2 of Section 26, the E/2 of Section 27, the NE/4 of Section 34, and the NE/4 of Section 35, all land being in T-18-S, R-31-E and comprising a total of 960 acres.

Well No. 2 was completed in the Pennsylvanian Formation at a location in the SW/4 of the NE/4 of Section 34, T-18-S, R-31-E and a Pennsylvanian Participating Area comprising 1440 acres has been approved.

Well No. 4 located in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E was completed in the Cherry Canyon Formation of the Delaware Mountain Group on January 30, 1959. An Initial Participating Area for the Delaware Formation comprising 40 acres in the NW/4 of the NW/4 of Section 27, T-18-S, R-31-E has been approved effective January 30, 1959. Well No. 5, located in the SE/4 NW/4 of this Section 27 was dry and abandoned in the Cherry Canyon Formation in July, 1959.

Continental Oil Company completed during 1960 a well located in the SW/4 of the SE/4 of Section 26, T-18-S, R-31-E as a non-commercial gas well in the Pennsylvanian Formation. This well was drilled under the provisions of Section 13 of the Unit Agreement.

Proposed Additional Development - Pan American, as unit operator, proposes commencement of a Mississippian Test at a location in the NE/4 of Section 12, T-19-S, R-31-E, prior to the end of 1960. Dual recompletion of Unit Well No. 3, a Siluro-Devonian gas producer with the Wolfcamp, is also proposed. The Wolfcamp interval 9785' to 9835' will be tested. Dual completion of this well will develop Wolfcamp reserves and increase current income from this well.

No additional Cherry Canyon wells will be drilled during the remainder of 1960.

Well Casing Program - The casing program of the Mississippian test will include such surface casing and other casing as may be required by the Director, the Commissioner and the Commission, or as set forth in approvals of the applicable U.S.G.S. and State of New Mexico forms. Sufficient measures will be taken to insure that the proposed Wolfcamp completion interval in Well No. 3 is adequately isolated with cement behind the producing casing string to prevent communication with other formations.

Offset Obligations - Appropriate and adequate measures will be taken to prevent drainage of unitized substances from lands subject to the Greenwood Pre-Grayburg Unit Agreement, or pursuant to applicable regulations, fair and reasonable compensatory royalty will be paid as provided in Section 17 of said Agreement.

Further Development - The Amended Plan of Development shall constitute the drilling obligations of the Unit Operator under the terms of the Greenwood Pre-Grayburg Unit Agreement for the remainder of the calendar year ending December 31, 1960. Before this plan expires, another plan for further development of the unit area will be submitted.

Modifications - It is understood that this Plan of Development is dependent upon certain information to be obtained prior to drilling and upon other contingencies such as availability of well casing; therefore, this Plan of Development may be modified to meet changing conditions or to protect the interest of all parties to this Agreement.

Effective Date - This Amended Plan of Development shall become effective upon the date it is approved by the Regional Supervisor of the United States Geological Survey.

PAN AMERICAN PETROLEUM CORPORATION
Unit Operator

By: Neil S. Whitmore
Neil S. Whitmore

WJS: js

Approved _____ Date _____
Supervisor, United States Geological Survey

Approved _____ Date _____
Commissioner of Public Lands

Approved _____ Date _____
Oil Conservation Commission

MAILING LIST OF COMMITTED WORKING
INTEREST OWNERS
GREENWOOD PRE-GRAYBURG UNIT
LEA AND EDDY COUNTIES, NEW MEXICO

Continental Oil Company
825 Petroleum Building
Roswell, New Mexico
Attn: Mr. W. A. Mead

Mr. O. F. Featherstone
Petroleum Building
Roswell, New Mexico

Mobil Oil Company
Box 2406
Hobbs, New Mexico
Attn: Mr. C. H. Samples

Mobil Oil Company
P. O. Box 633
Midland, Texas
Attn: Mr. Fred S. Wright, Jr.

Sinclair Oil and Gas Company
P. O. Box 1470
Midland, Texas

Texaco, Inc.
P. O. Box 3109
Midland, Texas
Attn: Mr. E. P. Munson, Jr.

Carper Drilling Company
Carper Building
Artesia, New Mexico

PAN AMERICAN PETROLEUM CORPORATION

1960 AUG 18 11 31 25

4
961

Box 268
Lubbock, Texas
August 18, 1960

File: JET-4303-416

Subject: Approved Initial Participating
Area for Delaware Formation
Greenwood Pre-Grayburg Unit,
Lea and Eddy Counties,
New Mexico

Oil Conservation Commission of (3)
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

All Committed Working Interest
Owners in Unit Area
(See Attached Addressee List)

Commissioner of Public Lands (3)
The State of New Mexico
Capitol Annex Building
Santa Fe, New Mexico

Gentlemen:

Attached is a copy of the approved 40-acre Initial Participating Area for the Delaware formation in the Greenwood Pre-Grayburg Unit executed by the United States Geological Survey, Commissioner of Public Lands and Oil Conservation Commission.

The effective date of this initial participating area is January 30, 1959.

Yours very truly,


Neil S. Whitmore

BJS:ab
Attachment

MAILING LIST OF COMMITTED WORKING
INTEREST OWNERS
GREENWOOD PRE-GRAYBURG UNIT
LEA AND EDDY COUNTIES, NEW MEXICO

Carper Drilling Company
Carper Building
Artesia, New Mexico

Continental Oil Company
825 Petroleum Building
Roswell, New Mexico
Attention: Mr. W. A. Mead

Mr. O. F. Featherstone
200 West First Street
Roswell, New Mexico

Mobil Oil Company
P.O. Box 633
Midland, Texas
Attention: Mr. Fred S. Wright, Jr.

Mobil Oil Company
P.O. Box 2406
Hobbs, New Mexico
Attention: Mr. C. H. Samples

Sinclair Oil and Gas Company
P.O. Box 1470
Midland, Texas

Texaco, Inc.
P.O. Box 3109
Midland, Texas
Attention: Mr. E. P. Munson, Jr.

Texaco Seaboard, Inc.
P.O. Box 3109
Midland, Texas

PAN AMERICAN PETROLEUM CORPORATION

1960 JUN 12 AM 8:59

Case # 961

Lubbock, Texas
June 15, 1960

File: JET-4210-416

Subject: Non-commercial Determination
Greenwood Unit No. 6,
Greenwood Pre-Grayburg Unit
Eddy and Lea Counties,
New Mexico

ALL COMMITTED WORKING INTEREST OWNERS
IN UNIT
(Addressee List Attached)

Commissioner of Public Lands
Capitol Annex
Santa Fe, New Mexico

New Mexico Oil Conservation Commission
Capitol Annex
Santa Fe, New Mexico

Gentlemen:

This is to advise that non-commercial determination for Greenwood Unit No. 6 was approved by the USGS on June 7, 1960. Attached is a copy of the letter received from John A. Anderson, USGS Regional Supervisor, signifying their approval.

Yours very truly,

Neil S. Whitmore
Neil S. Whitmore

BJS:ab

Attachments

MAILING LIST OF COMMITTED WORKING
INTEREST OWNERS
GREENWOOD PRE-GRAYBURG UNIT
LEA AND EDDY COUNTIES, NEW MEXICO

Carper Drilling Company
Carper Building
Artesia, New Mexico

Continental Oil Company
825 Petroleum Building
Roswell, New Mexico
Attention: Mr. W. A. Mead

Mr. O. F. Featherstone
200 West First Street
Roswell, New Mexico

Mobil Oil Company
P. O. Box 633
Midland, Texas
Attention: Mr. Fred S. Wright, Jr.

Mobil Oil Company
P. O. Box 2406
Hobbs, New Mexico
Attention: Mr. C. H. Samples

Sinclair Oil and Gas Company
P. O. Box 147C
Midland, Texas

Texaco, Inc.
P. O. Box 3109
Midland, Texas
Attention: Mr. E. P. Munson, Jr.

Texaco Seaboard, Inc.
P. O. Box 3109
Midland, Texas



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 6721
Roswell, New Mexico

JUN 7 1960

Pan American Petroleum Corporation
P. O. Box 268
Lubbock, Texas

Gentlemen:

Reference is made to your determination dated May 27, 1960, that Greenwood Unit No. 6 well in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 18 S., R. 31 E., N.M.P.M., Eddy County, New Mexico, completed January 18, 1960, flowing at a daily rate of 630,000 cubic feet of gas and 25 barrels of condensate in 6 $\frac{1}{2}$ hours from the Pennsylvanian 11,220-225, and 11581-591 feet, is not capable of producing unitized substances in paying quantities from the Pennsylvanian pursuant to sec. 11 of the unit agreement.

We concur with such determination. Production from this well should be allocated to the land on which the well is located.

Very truly yours,

JOHN A. ANDERSON
Regional Oil and Gas Supervisor

Copy to: Wash. (w/cy of notice)
BLM-Santa Fe (w/cy of notice)
Comm. Pub. Lands (w/cy of notice)
NMOCC (w/cy of notice)

PAN AMERICAN PETROLEUM CORPORATION

1960 JUN 2 AM 9 06

P. O. Box 268
Lubbock, Texas
May 27, 1960

File: JET-4186-416

Subject: Non-Commercial Determination
Greenwood Unit No. 6,
Shugart Pennsylvanian Field
Greenwood Pre-Grayburg Unit
Eddy and Lea Counties, New Mexico

Director (6)
United States Geological Survey
c/o Regional Oil and Gas Supervisor
Roswell, New Mexico

Dear Sir:

Pan American Petroleum Corporation as operator of the Greenwood Pre-Grayburg Unit requests determination of a non-commercial classification for the Pennsylvanian formation in the Greenwood Unit No. 6.

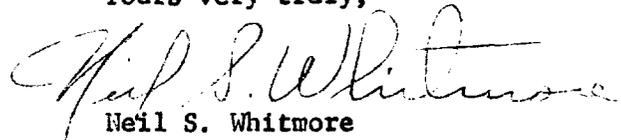
Greenwood Unit No. 6 is located 1980' from the east line and 1880' from the south line of Section 26, T-18-S, R-31-E, Eddy County, New Mexico. This well was completed in the Pennsylvanian formation on January 18, 1960, through casing perforations from 11,220-11,225' and 11,581'-11,591'. The perforated intervals were stimulated with 4000 gallons acid and the well flowed 25 barrels distillate in 6.5 hours with a gas rate of 612 MCFPD. On the initial potential test taken January 18, 1960, the well flowed 617 MCFPD at 67 psig back pressure and 467 MCFPD at 350 psig back pressure which yielded a calculated open flow potential of 630 MCFPD. Attempts to retest the well in March 1960 were unsuccessful due to fluid buildup in the hole which caused the well to flow by heads. On March 15, 1960 Continental advised that the open flow potential had been corrected to 700 MCFPD in lieu of 630 MCFPD as previously reported. The well is currently shut-in.

Although Greenwood Unit No. 6 is completed in the same correlative interval as Greenwood Unit No. 2, the only other well in the Unit completed in the Pennsylvanian formation, logs indicate that the porosity and permeability of the pay section are not well developed in the vicinity of Well No. 6. This is also illustrated by the fact that Well No. 6 had an open flow potential of 700 MCFPD as compared to the open flow potential of 7600 MCFPD obtained from Well No. 2. A cross section illustrating the porosity and permeability pinch-out in the Pennsylvanian pay section to the east and north is attached for your reference. As shown on this cross section, the lower interval 11,581'-11,591' flowed 600 MCFPD with 50 barrels distillate. Subsequently both zones were stimulated with 4000 gallons acid and the well was tested for only 612 MCFPD. This testing indicates that the lower interval 11,581'-11,591' is probably the only zone contributing to production.

Based on pore volume estimates, reserves for Greenwood Unit No. 6 are about 300 MMCF and 26,000 barrels of distillate. These reserves will result in recovering only approximately one-fifth of the \$350,000 drilling and equipment cost during the entire life of this well. In the event production could possibly be sustained at 500 MCFPD with 50 barrels of distillate which is near the calculated open flow capacity, it would take eight years to payout the initial cost to drill and equip the well.

In view of the extremely poor pay development in this well and the corresponding low deliverability, Pan American Petroleum Corporation respectfully requests your approval of a non-commercial classification for Greenwood Unit No. 6. Under paragraph 4, Section 11, Page 13 of the Unit Agreement, approvals of non-commercial classification for wells on Federal acreage are not required from either the Commission or the Commissioner.

Yours very truly,



Neil S. Whitmore
District Superintendent

BJS: js

cc-New Mexico Oil Conservation Commission

Commissioner of Public Lands

All Committed Working Interest Owners in Unit Area (Addressee List attached)

WORKING LIST OF COMMITTED WORKING
INTEREST OWNERS
GREENWOOD PRE-GRAYBURG UNIT
LEA AND EDDY COUNTIES, NEW MEXICO

Carper Drilling Company
Carper Building
Artesia, New Mexico

Continental Oil Company
825 Petroleum Building
Roswell, New Mexico
Attention: Mr. W. A. Mead

Mr. O. F. Featherstone
200 West First Street
Roswell, New Mexico

Mobil Oil Company
P. O. Box 633
Midland, Texas
Attention: Mr. Fred S. Wright, Jr.

Mobil Oil Company
P. O. Box 2406
Hobbs, New Mexico
Attention: Mr. C. H. Samples

Sinclair Oil and Gas Company
P. O. Box 1470
Midland, Texas

Texaco, Inc.
P. O. Box 3109
Midland, Texas
Attention: Mr. E. P. Munson, Jr.

Texaco Seaboard, Inc.
P. O. Box 3109
Midland, Texas