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CASE 3206: Application of APACHE
CORP. for a pool extension and
special pool rules, Lea County.

CASE NO.

3206

Application,
TRANSCRIPTS,
SMALL Exhibits
ETC.

GOVERNOR
DAVID F. CARGO
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

P. O. BOX 2088
SANTA FE

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

Mr. Clarence Hinkle
Hinkle, Bondurant & Christy
Attorneys at Law
Post Office Box 10
Roswell, New Mexico

Re: Case No. 3206
Order No. R-2874-B
Applicant: Apache Corporation

Dear Sir:

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

Very truly yours,

A handwritten signature in cursive script, appearing to read "A. L. Porter, Jr.".

A. L. PORTER, Jr.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC

Aztec OCC

Other Mr. John Russell

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. 3206
Order No. R-2874-B

APPLICATION OF APACHE CORPORATION
FOR A POOL EXTENSION AND SPECIAL
POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 8, 1967,
at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 14th day of March, 1967, 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 by Order No. R-2874, dated March 5, 1965, temporary
Special Rules and Regulations were promulgated for the High Plains-
Pennsylvanian Pool, Lea County, New Mexico.
- (3) That by Order No. R-2874-A, dated March 16, 1966, said
temporary Special Rules and Regulations were continued in full
force and effect for an additional one-year period.
- (4) That pursuant to the provisions of Order No. R-2874-A,
this case was reopened to allow the operators in the subject pool
to appear and show cause why the High Plains-Pennsylvanian Pool
should not be developed on 80-acre or 40-acre spacing units.
- (5) That the evidence establishes that one well in the High
Plains-Pennsylvanian Pool can efficiently and economically drain
and develop 160 acres.

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CASE No. 3206

Order No. R-2874-B

(6) That the Special Rules and Regulations promulgated by Orders Nos. R-2874 and R-2874-A have afforded and will afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil in the pool.

(7) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, the Special Rules and Regulations promulgated by Orders Nos. R-2874 and R-2874-A should be continued in full force and effect until further order of the Commission.

IT IS THEREFORE ORDERED:

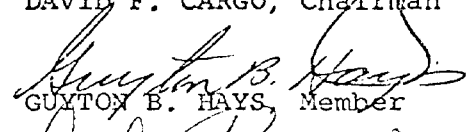
(1) That the Special Rules and Regulations governing the High Plains-Pennsylvanian Pool, promulgated by Orders Nos. R-2874 and R-2874-A, are hereby continued in full force and effect until further order of the Commission.

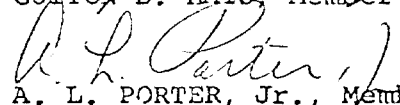
(2) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


DAVID F. CARGO, Chairman


GUYTON B. HAYS, Member


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

S E A L

esr/

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. 3206
Order No. R-2874-A

APPLICATION OF APACHE CORPORATION
FOR A POOL EXTENSION AND SPECIAL
POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on March 9, 1966,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 16th day of March, 1966, 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 by Order No. R-2874, dated March 5, 1965, temporary
Special Rules and Regulations were promulgated for the High Plains-
Pennsylvanian Pool, Lea County, New Mexico.

(3) That pursuant to the provisions of Order No. R-2874,
this case was reopened to allow the operators in the subject pool
to appear and show cause why the High Plains-Pennsylvanian Pool
should not be developed on 30-acre or 40-acre spacing units.

(4) That the temporary Special Rules and Regulations for
the High Plains-Pennsylvanian Pool, promulgated by Order No.
R-2874, should be continued in effect for an additional one-year
period in order to allow the operators in the subject pool

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CASE No. 3206

Order No. R-2874-A

sufficient time to gather additional information concerning the reservoir characteristics of the pool.

(5) That this case should be reopened at an examiner hearing in March, 1967, at which time the applicant and all interested parties should appear and show cause why the High Plains-Pennsylvanian Pool should not be developed on 80-acre or 40-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That the temporary Special Rules and Regulations for the High Plains-Pennsylvanian Pool promulgated by Order No. R-2874 are hereby continued in full force and effect for an additional one-year period.

(2) That this case shall be reopened at an examiner hearing in March, 1967, at which time the applicant and all interested parties may appear and show cause why the High Plains-Pennsylvanian Pool should not be developed on 80-acre or 40-acre spacing units.

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

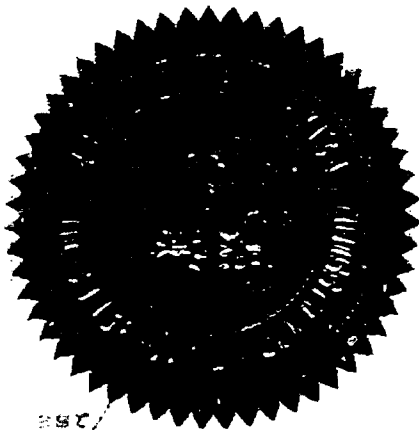
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell
JACK M. CAMPBELL, Chairman

Clinton B. Hays
CLINTON B. HAYS, Member

A. L. Porter, Jr.
A. L. PORTER, JR., SECRETARY



Docket No. 7-67

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 8, 1967

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 3533: Application of Union Oil Company of California for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Devonian formation in its Continental Nix Well No. 24-1, located 330 feet from the North line and 660 feet from the West line of Section 24, Township 18 South, Range 35 East, Reeves-Devonian Pool, Lea County, New Mexico.
- CASE 3534: Application of Newmont Oil Company for a waterflood expansion and unorthodox well locations, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to expand its West Grayburg No. 4 Sand Waterflood Project, Loco Hills Pool, by drilling a water injection well at an unorthodox location 175 feet from the South line and 1500 feet from the East line of Section 10, and further, to drill two production wells at unorthodox locations 2600 feet from the North line and 1200 feet from the West line of Section 10, and 1190 feet from the North line and 150 feet from the East line of Section 11, all in Township 18 South, Range 29 East, Eddy County, New Mexico.
- CASE 3531 (Readvertised) Application of Texas Pacific Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the South Eunice Pool by the injection of water into the Seven Rivers-Queen formations through six wells in Sections 5, 8 and 9, Township 22 South, Range 36 East, Lea County, New Mexico.
- CASE 3535: Application of Pennzoil Company for the creation of a new pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Lower Wolfcamp production for its Gallagher State Well No. 1, located in Unit A of Section 3, Township 17 South, Range 34 East, Lea County, New Mexico, and for the promulgation of special pool rules therefor, including a provision for 80-acre spacing.

Examiner Hearing March 8, 1967

CASE 3536: Application of Tenneco Oil Company for two unorthodox gas well locations, San Juan and Rio Arriba Counties, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox Blanco-Mesaverde Gas Pool location of its Dawson Federal Well No. 1, located 835 feet from the North line and 1150 feet from the West line of Section 26, Township 27 North, Range 8 West, San Juan County, and its Jicarilla "C" Well No. 8, located 1850 feet from the North line and 790 feet from the West line of Section 13, Township 26 North, Range 5 West, Rio Arriba County, New Mexico.

CASE 3206 (Reopened)

In the matter of Case No. 3206 being reopened pursuant to the provisions of Order No. R-2874-A which continued the special rules and regulations for the High Plains-Pennsylvanian Pool, Lea County, New Mexico, for an additional year. All interested parties may appear and show cause why the pool should not be developed on 80-acre or 40-acre spacing units.

CASE 3537: Application of Texaco Inc. for a waterflood project, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Bisti Lower-Gallup Oil Pool by the injection of water into the Lower Gallup formation through its Northeast Bisti Unit Well No. 3 located in Unit 0 of Section 15, Township 25 North, Range 11 West, San Juan County, New Mexico.

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GOVERNOR
JACK M. CAMPBELL
CHAIRMAN

State of New Mexico
Oil Conservation Commission



LAND COMMISSIONER
GUYTON B. HAYS
MEMBER

STATE GEOLOGIST
A. L. PORTER, JR.
SECRETARY - DIRECTOR

P. O. BOX 2088
SANTA FE

March 16, 1966

Mr. Clarence Hinkle
Hinkle, Bondurant & Christy
Attorneys at Law
Post Office Box 10
Roswell, New Mexico

Re: Case No. 3206
Order No. R-2874-A
Applicant:

APACHE CORPORATION

Dear Sir:

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

Very truly yours,

A. L. Porter, Jr.

A. L. PORTER, JR.
Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC X
Artesia OCC
Aztec OCC

Other Mr. John Russell - Mr. Lee Parks

Case 3206

Heard. 3-8-66

Rec. 3-8-66

1. Grant Apache Oil Corp. an extension of R. 2874 for 1 yr. in order to allow them time to drill another well & gather data on presently drilling wells.

2. at this time there is 1 producing well & 1 dry hole in ~~pat.~~ ~~cont.~~

Thurston J. G.



TOM F. HILL
Manager, Southwest Division
A. S. RHEA
Superintendent Operating Department

PRODUCTION DEPARTMENT **SUN OIL COMPANY** SOUTHLAND CENTER, P.O. BOX 2880, DALLAS, TEXAS 75221
March 7, 1966

Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

Attention: Mr. A. L. Porter, Jr.,
Secretary

Gentlemen:

Sun Oil Company has received notice in the matter of Case 3206 being reopened pursuant to the provisions of Order No. R-2874, which order established 160-acre spacing for the High Plains-Pennsylvanian Pool, Lea County, New Mexico, for a period of one year. Said case is being reopened to provide all parties an opportunity to appear and show cause why said pool should not be developed on 40 or 80-acre spacing units.

Sun Oil Company is a non-operating interest owner in the production from this pool and wishes to urge the Commission to establish permanent 160-acre spacing for the subject pool. We are of the opinion that the information obtained from the production from the High Plains-Pennsylvanian Pool in the past year will show that 160 acres can be efficiently and effectively drained by one well.

We shall appreciate your making this recommendation a part of the hearing to be held March 9, 1966.

Yours very truly,

SUN OIL COMPANY

A. R. Ballou
A. R. Ballou

ARB:mo

CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL = Day Letter
NL = Night Letter
LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination.

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NEW MEXICO OIL CONSERVATION COMMISSION=

P O BOX 2088 SANTA FE NMEX=

RE CASE 3206 MARCH 9, 1966 =

AMERADA PETROLEUM CORPORATION AS A WORKING INTEREST
OWNER IN THE HIGH PLAINS PENNSLVANIAN POOL RECOMMENDS
THAT TY PRESENT TEMPORARY 160-ACRE FIELD RUTES BE
CONTINUED ON A PERMANENT BASIS.=

R L HOCKER AMARADO PETROLEUM CORPORATION:

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

ATLANTIC

THE ATLANTIC REFINING COMPANY
INCORPORATED - 1870
PETROLEUM PRODUCTS

March 3, 1966

NORTH AMERICAN PRODUCING DEPARTMENT
NEW MEXICO - ARIZONA DISTRICT

S. L. SMITH, DISTRICT MANAGER
JACK BIARD, DISTRICT LANDMAN
E. R. DOUGLAS, DISTRICT GEOLOGIST
A. D. KLOXIN, DISTRICT DRLO. & PROD. SUP'T.
M. D. ROBERTS, DISTRICT GEOPHYSICIST
W. P. TOMLINSON, DISTRICT ENGINEER
B. R. WARE, DISTRICT ADMINISTRATIVE SUP'V.

MAR 7 1966
04
SECURITY NATIONAL BANK BLDG.
MAILING ADDRESS
P. O. BOX 1978
ROSWELL, NEW MEXICO

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

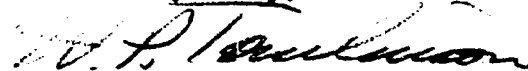
Attention: Mr. A. L. Forter, Jr.

Re: Case 3206
High Plains-Pennsylvanian
Pool Rules

Gentlemen:

The Atlantic Refining Company is an interest owner in the High Plains Unit operated by the Delaware Apache Corporation. Our information indicates the High Plains Pool to be of relatively limited size and that recoveries from wells on a spacing denser than 160 acres would not afford favorable economics for drilling. Reservoir performance indicates that one well will drain at least 160 acres. We therefore recommend the Commission continue the present rules for the Pool, permitting 160 acre spacing.

Yours very truly,



W. P. Tomlinson

VHC:jcb

cc: Larry Shannon
Apache Corporation
2005 Wilco Building
Midland, Texas

Mr. S. L. Smith, Roswell
Mr. T. C. Lancaster, Dallas

Docket No. 7-66

DOCKET: EXAMINER HEARING - WEDNESDAY - MARCH 9, 1966

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

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

- CASE 3381: Application of Tenneco Oil Company for an exception to Rule 15, Order No. R-2397, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 15, Order No. R-2397, special rules for the Double-X Delaware Pool, for its U. S. Smelting USA Well No. 2, located in Unit E of Section 22, Township 24 South, Range 32 East, Lea County, New Mexico, to permit said well to make up overproduction of gas at a lesser rate than complete shut in, in order that gas may be used from said to gas-lift another well on the same lease.
- CASE 3382: Application of Union Oil Company of California for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Hlapache Unit Area comprising 4480 acres, more or less, of Federal and State lands in Township 22 South, Range 22 East, Eddy County, New Mexico.
- CASE 3204: (Reopened)
In the matter of Case No. 3204 being reopened pursuant to the provisions of Order No. R-2872, which order established 80-acre spacing units for the Morton-Lower Wolfcamp Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.
- CASE 3206: (Reopened)
In the matter of Case No. 3206 being reopened pursuant to the provisions of Order No. R-2874, which order established 160 acre spacing for the High Plains-Pennsylvanian Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 80-acre or 40-acre spacing units.

State of New Mexico
Oil Conservation Commission



March 5, 1965

Re: Case No. 3206
Order No. R-2874
Applicant:

Apache Corporation

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

OTHER _____

Date 2-25-66

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. 3206
Order No. R-2874
NOMENCLATURE

APPLICATION OF APACHE CORPORATION
FOR A POOL EXTENSION AND SPECIAL
POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 10, 1965, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 5th day of March, 1965, 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, Apache Corporation, seeks the extension of the horizontal limits of the High Plains-Pennsylvanian Pool in Lea County, New Mexico, to include the following-described area:

TOWNSHIP 14 SOUTH, RANGE 34 EAST, NMPM

Section 14: SW/4

Section 15: SE/4

Section 22: E/2

Section 23: NW/4

(3) That the horizontal limits of the High Plains-Pennsylvanian Pool should be extended to include the above-described area.

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CASE No. 3206

Order No. R-2874

(4) That the applicant also seeks the promulgation of temporary special rules and regulations governing said pool, including a provision for 160-acre spacing units.

(5) That in order to prevent the economic loss caused by the drilling of unnecessary wells, to avoid the augmentation of risk arising from the drilling of an excessive number of wells, to prevent reduced recovery which might result from the drilling of too few wells, and to otherwise prevent waste and protect correlative rights, temporary special rules and regulations providing for 160-acre spacing units should be promulgated for the High Plains-Pennsylvanian Pool.

(6) That the temporary special rules and regulations should provide for limited well locations in order to assure orderly development of the pool and protect correlative rights.

(7) That the temporary special rules and regulations should be established for a one-year period in order to allow the operators in the subject pool to gather reservoir information to establish the area that can be efficiently and economically drained and developed by one well.

(8) That this case should be reopened at an examiner hearing in March, 1966, at which time the operators in the subject pool should be prepared to appear and show cause why the High Plains-Pennsylvanian Pool should not be developed on 80-acre or 40-acre spacing units.

IT IS THEREFORE ORDERED:

(1) That the horizontal limits of the High Plains-Pennsylvanian Pool in Lea County, New Mexico, are hereby extended to include the following-described area:

TOWNSHIP 14 SOUTH, RANGE 34 EAST, NMPM

Section 14: SW/4

Section 15: SE/4

Section 22: E/2

Section 23: NW/4

(2) That temporary Special Rules and Regulations for the High Plains-Pennsylvanian Pool are hereby promulgated as follows:

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CASE No. 3206

Order No. R-2874

**SPECIAL RULES AND REGULATIONS
FOR THE
HIGH PLAINS-PENNSYLVANIAN POOL**

RULE 1. Each well completed or recompleted in the High Plains-Pennsylvanian Pool or in the Pennsylvanian formation within one mile thereof, and not nearer to or within the limits of another designated Pennsylvanian pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. Each well shall be located on a standard unit containing 160 acres, more or less, comprising a governmental quarter section.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 without notice and hearing when an application has been filed for a non-standard unit consisting of less than 160 acres or the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the United States Public Land Surveys. All operators offsetting the proposed non-standard unit shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the formation of the non-standard unit within 30 days after the Secretary-Director has received the application.

RULE 4. Each well shall be located within 150 feet of the center of either the northeast quarter or the southwest quarter of a governmental quarter section.

RULE 5. The Secretary-Director may grant an exception to the footage requirements of Rule 4 without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon, provided the well will be located no nearer than 330 feet to the outer boundary of the unit. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been

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CASE No. 2206

Order No. R-2874

furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no offset operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

RULE 6. A standard proration unit (158 through 162 acres) shall be assigned a 160-acre proportional factor of 7.67 for allowable purposes, and in the event there is more than one well on a 160-acre proration unit, the operator may produce the allowable assigned to the unit from the wells on the unit in any proportion.

The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 160 acres.

IT IS FURTHER ORDERED:

(1) That any well presently drilling to or completed in the High Plains-Pennsylvanian Pool or in the Pennsylvanian formation within one mile thereof that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of said rule. The operator shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before April 1, 1965.

(2) That each well presently drilling to or completed in the High Plains-Pennsylvanian Pool or in the Pennsylvanian formation within one mile thereof shall receive a 40-acre allowable until a Form C-102 dedicating 160 acres to the well has been filed with the Commission.

(3) That this case shall be reopened at an examiner hearing in March, 1965, at which time the operators in the subject pool may appear and show cause why the High Plains-Pennsylvanian Pool should not be developed on 80-acre or 40-acre spacing units.

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

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CASE No. 3206

Order No. R-2874

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Jack M. Campbell
JACK M. CAMPBELL, Chairman

Guyton B. Haye
GUYTON B. HAYE, Member

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

esr/

Docket No. 4-65

DOCKET: EXAMINER HEARING - WEDNESDAY - FEBRUARY 10, 1965

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 2942: (Reopened)

In the matter of Case No. 2942 being reopened pursuant to the provisions of Order No. R-2645, which order established temporary 160-acre spacing and fixed well locations for the Simanola-Pennsylvanian Pool, Lea County, New Mexico, for a period of one year. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 2764: (Reopened)

In the matter of Case No. 2764 being reopened pursuant to the provisions of Order No. R-2439, which order established temporary 640-acre spacing units for the West Jal-Strawn Gas Pool, Lea County, New Mexico, for a period of two years. All interested parties may appear and show cause why said pool should not be developed on 320-acre spacing units.

CASE 3203: Application of Schermerhorn Oil Corporation for a non-standard location and a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of an 80-acre non-standard gas proration unit comprising the N/2 NE/4 of Section 5, Township 19 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to be dedicated to its Linam G Well No. 1 at a non-standard location 1025 feet from the North line and 1953 feet from the East line of said Section 5.

CASE 3204: Application of Union Oil Company of California for the creation of a new oil pool and for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Wolfcamp production for their California State No. 1-7 located in Unit D of Section 7, Township 15 South, Range 35 East, Lea County, New Mexico, and the promulgation of special rules for said pool, including a provision for 80-acre spacing.

CASE 3205: Application of Continental Oil Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to Rule 4 of the special pool rules for the Baish Wolfcamp and Maljamar-Abo Pools, to permit the location of its Baish "A" Well No. 13 at an unorthodox location for said pools 1780 feet from the North line and 460 feet from the West line of Section 22, Township 17 South, Range 32 East, Lea County, New Mexico.

CASE 3206: Application of Apache Corporation for a pool extension and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the extension of the High Plains-Pennsylvanian Pool, Lea County, New Mexico to include its Delaware-Apache Well No. 1 located in the NE/4 of Section 22, Township 14 South, Range 34 East; applicant further seeks the promulgation of temporary special pool rules for said pool including a provision for 160-acre proration units.

AMERADA PETROLEUM CORPORATION

P. O. BOX 2040

TULSA 2, OKLA.

765 FEB 9 1965

February 8, 1965

AIR MAIL

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

Re: Case No. (3206)
Set for 2-10-65

ATTN: Mr. A. L. Porter, Jr., Secretary-Director

Gentlemen:

This is to advise Amerada Petroleum Corporation, as an interest owner in the Delaware-Apache Well No. 1 located in the NE/4 Section 22, T 14 S, R 34 E, concurs in Apache Corporation's request for 160-acre proration units and temporary special pool rules.

Yours very truly,

R. S. Christie
R. S. Christie

RSC:dw

cc: Delaware-Apache Corporation
2000 Wilco Building
Midland, Texas

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

100 Jan 25 1965

Application of Apache Corporation to extend the limits of the High Plains Pennsylvanian Pool, Lea County, New Mexico due to completion of the Delaware-Apache No. 1 well located in the NE $\frac{1}{4}$ of Section 22, Township 14 South, Range 34 East, and for the adoption of temporary special field rules for said pool as extended, including 160 acre well spacing and proration units.

Comes Apache Corporation, with offices at Midland, Texas, acting by and through the undersigned attorneys, and hereby makes application to extend the limits of the High Plains Pennsylvanian Pool, Lea County, New Mexico, and for the promulgation of temporary special rules and regulations for said pool, and with respect thereto shows:

1. That by order of the Commission No. R-2507 dated July 1, 1963, the High Plains Pennsylvanian Pool, Lea County, New Mexico was established as covering the SW $\frac{1}{4}$ Section 23, Township 14 South, Range 34 East, N.M.P.M. on account of the discovery made in the Texas Crude - Sinclair No. 1-23 State well located in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 23, Township 14 South, Range 34 East, N.M.P.M. That Apache Corporation has completed the Delaware-Apache No. 1 High Plains Unit well in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 22, Township 14 South, Range 34 East, N.M.P.M. as of January 15, 1965, which is producing from the Pennsylvanian formation through perforations from 10,438 feet to 10,512 feet. Said well was completed with an initial flowing potential of 1,262 barrels of oil per day through a 1/2 inch choke, with a gas/oil ratio of 1188 to 1. Said well was drilled to a total depth of 10,600 feet. That applicant proposes that on account of the recent discovery the High Plains Pennsylvanian Pool be expanded to include at least the NE $\frac{1}{4}$ of Section 22 and the NW $\frac{1}{4}$ of Section 23, Township 14 South, Range 34 East.

2. That due to the character of the discovery made in the Delaware-Apache No. 1 well located in Section 22, above referred to, applicant believes that each well will efficiently and economically drain a regular governmental quarter section consisting of 160 acres, and that temporary special field rules should be promulgated establishing 160 acre well spacing and proration units for at least one year to afford the drilling of additional wells before permanent field rules are adopted. It is believed that such temporary rules will prevent the economic loss caused by the drilling of unnecessary wells and avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights. Applicant further believes that the character of the discovery made in the applicant's Delaware-Apache No. 1 High Plains Unit well is comparable to the production in the East Saunders Permo-Pennsylvanian Pool situated approximately 2 miles to the West, for which 160 acre spacing and proration units have heretofore been established by the Commission under Order R-2359 and made permanent under Order R-2359-B under date of November 10, 1965.

3. That applicant proposes that the temporary special field rules to be adopted for the High Plains Pennsylvanian Pool be similar to those adopted for the East Saunders Permo-Pennsylvanian Pool above referred to, and that each well be completed or recompleted on a standard proration unit containing 158 through 162 acres, substantially in the form of a square which is a governmental quarter section.

4. Applicant requests that this matter be heard at the first regular examiner's hearing in February.

Dated this 22nd day of January, 1965.

Respectfully submitted,

APACHE CORPORATION

By 

HINKLE, BONDURANT & CHRISTY

By 

P.O. Box 10

Roswell, New Mexico

Attorneys for Applicant

CLARENCE E. HINKLE
W. E. BONDURANT, JR.
S. B. CHRISTY IV
LEWIS C. COX, JR.
PAUL W. EATON, JR.
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
MICHAEL R. WALLER

LAW OFFICES
HINKLE, BONDURANT & CHRISTY
HINKLE BUILDING
ROSWELL, NEW MEXICO

OF COUNSEL: HIRAM M. DOW
TELEPHONE 622-6910
AREA CODE 505
POST OFFICE BOX 2510

January 22, 1965

3206

Oil Conservation Commission
Box 2088
Santa Fe, New Mexico

Attention: Mr. James Durrett

Gentlemen:

We enclosed application in triplicate of Apache Corporation to extend the limits of the High Plains Pennsylvanian Pool and for the adoption of temporary special field rules. This is the application concerning which the writer talked to Mr. James Durrett today and for which a special notice is to be published so that the matter can be included on the examiner's docket for February 10.

Yours very truly,

HINKLE, BONDURANT & CHRISTY

By Clarence E. Hinkle
C.E.H.

CEH:cs

Enc.

cc: Apache Corporation - Midland
cc: Apache Corporation - Houston

DOCKET MAILED

Date 1-24-65

OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Date 2/22/65

CASE 3206

Hearing Date 9am 2/10/65
DSN @ SF

My recommendations for an order in the above numbered cases are as follows:

Enter an order approving the extension
of the horizontal limits of the High Plains
Permian Pool to include the
following described area:

Township 14 S Range 34 E

Sec 14: SW 1/4

Sec 15: SE 1/4

Sec 22: E 1/2

Sec 23: NW 1/4

Provide temporary pool rules (for type)
authorizing 160 acre spacing (std unit 158 to 162
acres) with well locations within 150' of
the center of the NE 1/4 or the SW 1/4 of the
quarter section. Authorized a 160-
acre proportional factor of 7.67 for
allowance purposes.

Call pool up for review in Fr Feb
1966.

[Signature]

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
March 8, 1967

EXAMINER HEARING

IN THE MATTER OF:

Case No. 3206 being reopened pursuant to
the provisions of Order No. R-2874-A
which continued the special rules and
regulations for the High Plains-
Pennsylvanian Pool, Lea County, New
Mexico.

) Case No. 3206

BEFORE: DANIEL S. NUTTER, Examiner

TRANSCRIPT OF HEARING

CLASS OF SERVICE

This is a fast message
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proper symbol.

WESTERN UNION

TELEGRAM

W. P. MARSHALL, PRESIDENT

1201 (4-60)

SYMBOLS

DL=Day Letter

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The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination.

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NEW MEXICO OIL CONSERVATION COMM=

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CASE #3206 SUBJECT NMOCC HEARING ON HIGH PLAINS POOL
RULES LEA COUNTY NEW MEXICO.

9 TENNECO OIL COMPANY AS A PARTICIPATING COMPANY
IN THE HIGH PLAINS UNIT SUPPORTS APACHE CORPORATIONS
PROPOSAL TO ADOPT 160 ACRE SPACING ON A PERMANENT BASIS=
= A W LANG TENNECO OIL CO.==

#3206..

MR. NUTTER: Call Case 3206.

MR. HATCH: In the matter of Case Number 3206 being reopened pursuant to the provisions of Order No. R-2874-A which continued the special rules and regulations for the High Plains-Pennsylvanian Pool, Lea County, New Mexico.

(Whereupon, Applicant's Exhibit
1 marked for identification.)

MR. HINKLE: Clarence Hinkle, Hinkle, Bondurant and Christy, Roswell, representing Apache Corporation. We have three witnesses and five exhibits, and would like to have all the witnesses sworn at one time.

(Witnesses sworn.)

F R E D E R I C K M. J U L I A N, called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, by whom you are employed, and where you reside.

A My name is Frederick M. Julian. I am employed by Apache Corporation as a geologist, and I reside in Midland, Texas.

Q Have you previously testified in this case?

A Yes, I have.

Q At the previous hearing a year ago?

A Yes.

Q Did you give geological testimony at the hearing?

A Yes.

Q Refer to Apache's Exhibit Number 1 and explain to the Commission what this is and what it shows.

A This is a plat from the High Plains Pool located in Township 14 South, Range 34 East, Lea County, New Mexico. It is contour, it is a structural contour map, contoured on the top of the Saunders Lime, which in this case, is the top of the pay. The contour interval is 50 feet and the plat is similar -- it is the same plat as we used in the last testimony and has merely been brought up to date.

Q Have there been any additional wells drilled since last year when you testified in regard to this case?

A Yes, there have been four additional wells drilled in order of completion by date. The first well was the Sunset International Number 1 Union State, located in the southeast quarter of Section 22. This well was completed in April of 1966 as a dry hole.

Q That well was just in the process of being started at the time of the last hearing, was it not?

A Yes, it was. This particular well, the pipe was set on it and they attempted a completion from the High Plains zone.



And on swab test, swabbed about ten barrels of oil and an undetermined amount of water in 24 hours. It's my understanding that the water-oil ratio was very high and they felt they did not have a commercial well at this point.

The next well drilled --

Q While you are on this well, have you examined the log of that well?

A Yes, I have.

Q Did they core the well?

A They did not core it. They tested the well. They drillstem tested and completion tested.

Q And you have examined the logs?

A Yes. The second well drilled was the Huber Number 1 Mobile State in the southwest quarter of Section 16. This well was also completed as a dry hole in May of 1966, and does not directly enter into our High Plains Unit. It's associated with a different pool, the East Saunders Pool.

The third well drilled was the Standard of Texas Well in Section 34, which was completed in June of 1966 as a dry hole, and on drill stem test of the High Plains zone, recovered drilling mud.

The fourth well is in Section 24, the Warren American and Ralph Lowe Number 1 Texaco State. This well was completed in August of 1966 as a dry hole and drill stem test of the



High Plains Zone recovered 475 feet of sulphur water cut mud.

Q Have you examined the log of that well, too?

A Yes, I have examined the logs of all these wells.

Q Did you gain any information with regard to the reservoir by the drilling of these two wells and examination of the electrical log?

A The Warren American Ralph Lowe Well indicates they are in a tight section, in a tight comparable section as our High Plains Number 1 Well, which shows them to be not associated with us directly. They were -- They didn't recover anything.

Q What about the Sunset Well, was the casing set so that it could be in the same formation?

A They did perforate and test the same zone that we're producing from.

Q Did your examining of the electrical log show any different characteristics of the reservoir than you already have testified to in the previous hearing?

A No.

Q Is there anything else concerning this exhibit that you would like to call to the attention of the Examiner?

A Not at this time. No.

MR. HINKLE: That's all of this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q Now, the High Plains Number 2 Well in the southeast of Section 15 had been drilled at the time of the last hearing, had it not?

A That is correct, and it had no porosity in this zone.

Q Is it your opinion that the Texaco Sinclair State Number 1 in the southwest quarter of 23 is producing from the same pool as the High Plains Number 1?

A This is rather hard to determine. You see, the Sunset Well which was drilled up dip recovered water. You would suspect if they were interconnected exactly it should have been productive. It is the same zone.

Q On the logs?

A On the logs. However, it looks like there is separation of some kind.

MR. NUTTER: Are there any other questions of Mr. Julian?

REDIRECT EXAMINATION

BY MR. HINKLE:

Q Could that separation be a matter of porosity and permeability?

A Yes, evidently it is a matter of porosity and permeability.

MR. HINKLE: That's all. I would like to offer in evidence Apache Exhibit Number 1.

MR. NUTTER: Apache Exhibit Number 1 will be admitted in evidence.

(Whereupon, Applicant's Exhibit 1 offered and admitted in evidence.)

A L A N B. E R W I N, called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, where you reside, and by whom you are employed.

A My name is Alan B. Erwin. I reside in Tulsa, Oklahoma and I am employed by Apache Oil Corporation as Chief Reservoir Engineer.

Q Have you previously given testimony before the Oil Conservation Commission?

A Yes, I have.

Q And qualified as a Reservoir Engineer?

A Yes.

Q Have you made a study of the production from the High Plains-Pennsylvanian Pool?

A Yes, I have.

Q And you have been familiar with it from the outset?

dearnley-meier

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A Yes.

Q Have you prepared, or has there been prepared under your direction, any exhibits reflecting on the production?

A Yes. We have Exhibit Number 2, which is a plot of the daily average gross production versus time each month for the High Plains Unit Number 1 since completion, and also we show the monthly average gas-oil ratio.

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

Q (By Mr. Hinkle) Any particular other comments in regard to Exhibit Number 2?

A No. I think the exhibit is self-explanatory.

MR. NUTTER: Mr. Erwin, this is for the one well, the High Plains Number 1?

A Yes, sir, that is correct.

Q (By Mr. Hinkle) Refer to Apache Exhibit Number 3 and explain what that shows.

A This is a plot of the static reservoir pressure versus cumulative oil production and it's an extension of the same exhibit which was shown at the previous hearing. It also is extrapolated to assume the abandonment static reservoir pressure of 500 psi and yields an ultimate production of 237,000 barrels.

Q Where was the curve at the time of the last hearing,

dearnley-meier

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approximately?

A It was at the next to the last point there, at a cumulative of 114,000 barrels and a pressure of 1896, it's pressure on 11-3-66 was 1047 with a cumulative of 177,000 barrels.

Q Had the curve been projected or extrapolated on a straight line at that time, it would have indicated a higher, that is, a greater possible recovery, would it not?

A A slightly higher ultimate recovery.

Q So there has been a decline since the time it was previously prepared and presented at the last hearing?

A Yes, that is correct. The field is producing under depletion drive mechanism.

Q What does this show to be the projected ultimate recovery, primary recovery?

A 237,000 barrels.

Q Is there anything else you would like to state, any other comments in regard to this exhibit?

A I have no further comments.

MR. HINKEL: That's all from this witness.

CROSS EXAMINATION

BY MR. NUTTER:

Q In your opinion as a Reservoir Engineer, do you think that the Texas Crude Well Number 1 in the southwest of 21 is



producing from the same reservoir?

A No, I do not believe it is producing from the same reservoir because the production characteristics have been considerably different. It is producing at a low rate and low ~~cumulative~~ cumulative, and the presence of the water in between would tend to lead me to believe it was a separate reservoir.

Q How about pressures between the two?

A I have no information on pressures of the other well, so I couldn't say.

Q Do you feel that you have got any locations in the High Plains Unit that you would recommend be drilled to further deplete this pool?

A Not to this reservoir, no, sir. Now, there may be locations that we could drill to a separate lens or separate reservoir, but not to this same reservoir. I feel that we are essentially draining this entire reservoir with this one existing well.

Q It's a rather small reservoir?

A Approximately 160 acres in size.

MR. HINKLE: The next witness will go into that.

MR. NUTTER: I see. Are there any further questions of Mr. Erwin?

MR. HINKLE: We would like to offer Exhibits 2 and 3.

MR. NUTTER: Applicant's Exhibits 2 and 3 will be

admitted into evidence.

(Whereupon, Applicant's Exhibits
2 and 3 offered and admitted
in evidence.)

MR. NUTTER: Mr. Erwin is excused.

(Witness excused.)

MR. NUTTER: Call your next witness, please.

L A R R Y C. S H A N N O N, called as a witness herein,
having been first duly sworn, was examined and testified as
follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, by whom you are employed, and your
address.

A I am Larry C. Shannon, employed by Apache Corporation,
Midland, Texas, as a Division Engineer.

Q You previously testified in this case a year ago,
did you not?

A Yes, sir, I did.

Q And qualified as a Reservoir Engineer?

A Yes, sir.

Q Have you made a continuous study of the High Plains -
Pennsylvanian Pool since the last hearing?

A Yes, sir, I have, and we have updated and revised
some additional exhibits.

(Whereupon, Applicant's Exhibit 4 marked for identification.)

Q (By Mr. Hinkle) Refer to Exhibit Number 4 and explain to the Examiner what that shows.

A Mr. Examiner, this is a revision of the exhibit that we turned in last year. Essentially, there are two changes, number one; our ultimate recovery last year, we thought, was a little higher than it is this year. We revised this figure. Also, Apache was a little optimistic, we used a recovery factor of some 27 per cent of the oil in place. We estimated our ultimate to be this. We took this figure from the East Saunders-Pennsylvanian Pool through material balance and all which indicated they would expect this high recovery.

Since we found this to be a limited reservoir, we think that the more realistic recovery factor would be in the neighborhood of 20 per cent. It is still an assumed factor and something that we cannot very closely estimate.

Q You think that is more realistic than the 27 per cent on account of the pressure decline there is apt to be less production?

A Yes, sir, that's right. So, we have gone through then, backwards through a volumetric calculation, we know very easily what our ultimate recovery will be. We have gone backwards through the formula and come up with an estimated

drainage that we think this well is currently draining, and it comes out to be 148 acres. Of course, this could fluctuate, two per cent difference in recovery could make a difference in the area.

Q If you used 18 or 19 per cent, approximately how many acres would you be draining?

A We would be draining in excess of 160 acres.

Q In excess?

A Yes. Since it is an assumed value, we kept it even 20 per cent.

Q And the 237 barrels is the same figure that Mr. Erwin has testified to?

A Yes, sir, that's how we arrived at this figure, from our pressure cumulative.

Q And you have used the same porosity, water saturation, net effective pay and formation volume factor that you have used previously?

A Yes. The only thing that has changed is the two items that I referred to.

(Whereupon, Applicant's Exhibit 5 marked for identification.)

Q (By Mr. Hinkle) Refer to Apache Exhibit 5 and explain what that shows.

A This also is a revision from an exhibit we submitted

last year. We, to begin with, the value of our oil has increased from three-o-one to three-o-six. Our crude purchaser has changed because of an acquisition and the estimation of artificial lift equipment was raised \$5,000.00, since we're right in the process of purchasing this equipment, so our total investment cost for the well are \$165,000 rather than \$160,000 as of last year. Our recoverable oil and gas have been changed to reflect our changes from 27 per cent to 20 per cent recoveries and it has changed the economic picture. I would like to point out that we have already recovered over what we estimate to be recoverable on a normal 80-acre spacing.

Of course, we realize we might not be over 280-spacings within this reservoir. Significantly, this is the only two --

Q If it were drilled on 180-acre spacing, you would about break even?

A It's about a break even point. We would have a profit of \$139,400.00.

Q The only way you can make anything out of it is to continue it on a 160-acre spacing pattern?

A Yes.

Q In your opinion, will this one well drain all that can be recovered by primary production from this pool?

A Yes, sir. We think that very definitely. As Mr.

Erwin stated, there is no need for another well that we can see.

Q Your company does not anticipate drilling any more wells at the present time?

A No, sir, but I would like to bring out one fact. We have a large unit, it's strictly an operator's unit, it's not a State approved.

Q That unit, incidentally, is shown on Exhibit Number 1?

A Yes, sir. It's outlined on Exhibit Number 1. We are negotiating for a farm out, to have someone else drill for a new lens within our unit. We know we don't want another well within this particular lens. If they'll step out, we think there's a possibility of another lens which will be more of an exploration project.

Q You anticipate --

A We have had several companies that are currently interested in this right now, and are investigating this very closely.

Q So you do anticipate there is a possibility of another well being drilled within the next few months, or started?

A Yes, sir, this is correct.

Q In your opinion, will correlative rights be protected by continuing the pool rules that are in effect at the present



time?

A Yes, I think they will.

Q Do you have any recommendation to make to the Commission with respect to the present rules?

A Yes, sir. We would like to see a continuation of the rules and regulations adopted for the High Plains-Pennsylvanian Pool to remain in effect until a further order of the Commission.

Q Or be made permanent?

A Or be made permanent, yes, sir.

MR. HINKLE: That's all of our testimony.

CROSS EXAMINATION

BY MR. NUTTER:

Q As regards this one well in this pool, Mr. Shannon, actually, since it is a unit and no one is going to come in there and off set you on the next 40 or anything like that, there's really no necessity for the existence of 160-acre rules, is there?

A Basically, we probably would not be hurt, I suppose, if we lost it. However, there are two factors that we would like to consider. First, on a technical basis, we think that we're draining close to 160 acres and we see no reason to change our spacing. Two, if we're to find a partner to come in and drill, the advantage of this large spacing is of much higher



incentive for further development.

Q That would be another lens so it would be another pool?

A Yes, and it would have to be another field rule.

Q I see. You might have incentive to offer on a farm out to have 160 acre rules in effect?

A Yes.

MR. HINKLE: If this goes back to 80 there would be less incentive for somebody to drill a wildcat well on another lens there?

A Yes.

MR. HINKLE: No, the Saunders --

A The East Saunders has 160.

MR. HINKLE: And it has 160?

A Yes.

Q (By Mr. Nutter) Ultimate recoveries have been more impressive over in the East Saunders than they evidently will be in this one well?

A Yes, they are. Evidently it is a much larger reservoir, Mr. Nutter.

MR. NUTTER: Are there any other questions of Mr. Shannon?

MR. HINKLE: We would like to offer Exhibits 4 and 5.

MR. NUTTER: Exhibits 4 and 5 will be admitted in

evidence.

(Whereupon, Applicant's Exhibits
4 and 5 offered and admitted
in evidence.)

MR. HINKLE: That's all we have.

MR. NUTTER: Mr. Shannon will be excused.

(Witness excused)

MR. NUTTER: Does anyone have anything to offer in
Case 3206 Reopened?

MR. RUSSELL: John F. Russell, on behalf of Union
Oil Company of California, would like to make a statement for
the record in this case. Union Oil Company of California is
the owner of a 15.217 working interest in this unit, and well,
and would like to state that they support the application of
the Apache Corporation to continue the existing rules in this
pool.

MR. NUTTER: Thank you, Mr. Russell. If there's
nothing further in Case 3206, we will take that case under
advisement.



I N D E X

WITNESSES

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FREDERICK M. JULIAN

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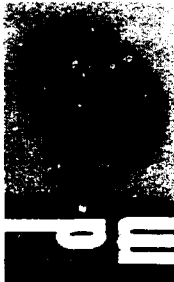
E X H I B I T S

NUMBER	IDENTIFICATION	OFFERED	ADMITTED
App. Ex. 1	2	7	7
2	8	11	11
3	8	11	11
4	12	18	18
5	13	18	18

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STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)


I, ADA DEARNLEY, Notary Public 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.

Witness my Hand and Seal this 10th day of March, 1964.


NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

1-11-67
3/8 3206 67


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PAGE 1

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
March 9, 1966

EXAMINER HEARING

IN THE MATTER OF:

In the matter of Case No. 3206 being
reopened pursuant to the provisions of Order
No. R-2874, which order established 160 acre
spacing for the High Plains-Pennsylvanian
Pool, Lea County, New Mexico, for a period
of one year.

Case No. 3206

BEFORE:

Elvis A. Utz, Gas Engineer

TRANSCRIPT OF HEARING



MR. DURRETT: In the matter of Case No. 3206 being reopened pursuant to the provisions of Order No. R-2874, which order established 160 acre spacing for the High Plains-Pennsylvanian Pool, Lea County, New Mexico, for a period of one year.

MR. HINKLE: Clarence Hinkle of Hinkle, Bendurant and Christy appearing on behalf of Apache; we have two witnesses, I would like to have them sworn, please.

(Witnesses sworn.)

(Whereupon, Applicant's Exhibits 1, 2, 3, 4 & 5 marked for identification.)

MR. UTZ: Any other appearances? You may proceed.

FREDRICK M. JULIAN, a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q State your name, please?

A Fredrick M. Julian.

Q By whom are you employed?

A Delaware Apache Corporation.

Q In what capacity?

A Geologist.

Q Are you a graduate geologist?

A Yes, sir.



Q What school did you graduate from?

A I graduated from the University of North Dakota in February of 1947.

Q Have you practiced your profession since graduation?

A Yes, sir.

Q By whom have you been employed since your graduation?

A I was employed by Amerada Petroleum Corporation for approximately 8 and one half years and since that time with Delaware Apache Corporation.

Q Have you spent a good deal of time in New Mexico and Southeastern New Mexico?

A Yes, sir, in Hobbs working with Amerada.

Q Since that time you have been with Apache in what Capacity?

A Doing exploration work in New Mexico.

Q Are you familiar with the High Plains Area?

A Yes, sir.

Q Have you made a study of all the wells that have been drilled in that area?

A Yes, sir.

Q And in the East Saunders Area to the East of it?

A Yes, sir.

Q Have you reviewed the testimony originally introduced in this Case Number 3206?

A Yes, sir.

Q Please refer to Apache's Exhibit 1 and explain to the Commission what it is and what it shows?

A Exhibit 1 is a plat showing wells in the East Saunder's Pool and in the High Plains Field. It's contoured, structurally contoured on top of the Saunders line, 50 foot contours.

Q Is this substantailly the same exhibit that was originally introduced in the case showing the structural condition?

A Yes, it is, there's very little change at all on this plat.

Q How has this change been brought about?

A By the drilling of our Number 2 High Plains well.

Q Where is it located?

A It's located in the Southwest of the Southeast of Section 15.

Q It's shown on the plat?

A On the plat it's shown as a dry hole, it's also been changed by the drilling of the Huber Corporation Number 1 Pure State in the Southwest of the Northwest of Section 16.

Q But the general contours showing the conditions have not been changed?

A Not essentially changed.

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Q Is your Number 2 well higher or lower than your Number 1 well?

A Our Number 2 well ran 21 feet higher than our Number 1 well.

Q And yet it was a dry hole?

A Yes, sir.

Q How do you account for this?

A The porosity was not present in the Number 2 well that is producing in the Number 1 well.

Q Are there any other wells being drilled at the present time in the immediate area?

A Yes, there is a Sunset International Number 1 Union State drilling in the Northeast of the Northeast of Section 22. It is drilling at approximately 7,000 feet, somewhere in there.

Q What is your production depth there?

A Around 10,400 I believe.

Q So it likes about 3,000 feet being completed?

A Yes.

Q Now, you have indicated on Exhibit Number 1A and A', what does that indicate?

A That refers to our Exhibit 2 which is a cross section drawn between the Number 1 and Number 2 High Plains.

Q You have prepared such a cross section?

A Yes.



Q Refer to Exhibit 2 and explain that to the Commission?

A This cross section was drawn between High Plains Unit Number 1 and Number 2. The structural datum is a marker in the Wolfcamp Wa-Co beds and it's a reliable marker in the area. We're concerned with the pay zones which are immediately below our lime along the top of the Saunders Lime. In the perforations in the Number 1 High Plains are shown, and you'll notice that on the Number 2 High Plains Unit, the porosity is not present. It was tested from 10,495 to 10,550 and recovered 120 feet of mud. This is an equivalent zone on lower perforations in the Number 1 High Plains. The sonic log indicates porosity not being developed in the Number 2 High Plains in the interval that is the upper zone in the Number 1 High Plains.

Q In this area production is dependent mostly upon porosity?

A Yes.

Q Is that true in the East Saunders Field?

A Yes, it is. If I might refer again to Exhibit Number 1, if you'll notice dry holes on the West side of Saunders Pool they are in almost the identical situation to our dry hole, the Number 2 High Plains. These wells are not structurally low, they were merely, they did not have porosity developed, and as

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a result there was no reservoir present. This same situation occurs between the Number 1 and Number 2 High Plains. We feel that although these are very similar reservoirs that they are probably not connected.

Q Is is your opinion that your Number 2 well defines the limits of the High Plains Area?

A We feel that it defines the limits on the West side, yes, sir.

Q Just on the West side?

A Well--

Q You could still have production toward the--

A --we could have--

Q Northeast?

A However, we don't know if we could be in the same porosity.

Q The production in this area generally is limited to the porosity lenses that you mentioned?

A Right. We feel that these lenses are erratic in the development, they are not continuous over a large area, and that it's unknown when you drill a well if you're going to have porosity or not, you have to take that chance.

Q Is there anything else you would like to present to the Commission in connection with this matter?

A Not at the present time.

MR. HINKLE: We offer in evidence Exhibits 1 and 2.

(Whereupon, Applicant's Exhibit
1 and 2 offered into evidence.)

MR. UTZ: Without objection Exhibits 1 and 2 will be
admitted.

(Whereupon, Applicant's Exhibit
1 and 2 admitted into evidence.)

MR. HINKLE: That's all we have of this witness.

CROSS-EXAMINATION

BY MR. UTZ:

Q Does the Huapache Corporation have any plans for
further development?

A We do plan to drill another well, however we aren't
sure exactly where. This will have to be approved by all the
participants in the unit.

MR. HINKLE: How many participants in this unit?

THE WITNESS: There are 8.

MR. UTZ: Any other questions of the witness? The
witness may be excused.

MR. HINKLE: I would like to call Larry Shannon.

L A R R Y S H A N N O N, a witness, having been first
duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

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Q You are Larry Shannon?

A Yes, sir.

Q You are employed by the Huapache Corporation?

A That's correct.

Q In what capacity?

A As an area engineer.

Q Have you previously testified before the Commission and had your qualifications accepted?

A Yes, sir, I have.

Q You testified in this case originally, did you not?

A Yes, I did.

Q Since the completion of your dry hole, which has been testified to by the previous witness, have you made a study of the reservoir limits and the economic aspects of the High Plains Pool?

A I have.

Q What does your study consist of?

A I would like to refer first to Exhibit Number 3. This is a graphic picture of the production history on our High Plains Unit Well Number 1, bottom hole pressure versus cumulative production is shown. We have extrapolated the curve in order to estimate recovery in the well assuming a bottom pressure of 500 PSI. To represent the economic limit we

estimate our recovery to be 286,000 barrels.

Q How does this performance curve compare with wells in the East Saunders Pool?

A Both the East Saunders and High Plains Pennsylvanian have been rather textbook examples, however the East Saunders Pool shows a much larger ultimate recovery. They both follow the graphic picture on the cumulative production versus bottom hole pressure.

Q This has been extrapolated out to show the economic limits of recovery?

A Yes, that is correct.

Q Refer to your Exhibit Number 4 and explain what this is and what it shows.

A Yes, sir, Exhibit Number 4, this is essentially the same exhibit originally presented to the Commission. We have added our estimates of all future recoveries from Exhibit 3 and then calculated the minimum drainage of our well. At the base of this exhibit we have shown or anticipated recoveries, namely the 40, 80 and 160 acreage. Then the actual area of drainage I think is shown at the bottom to be a minimum of 134 acres.

Q That is only the minimum, it could be considerably more than that, could it not?

A Yes, Mr. Hinkle, it could.

Q As much as 160 acres more?



A It's conceivable, yes.

Q The actual drainage area that you have arrived at has been obtained from the information contained on your Exhibit 3?

A Yes, the 287 barrels at 500 PSI.

Q Now, refer to Exhibit Number 5 and explain what that shows?

A This is a revised exhibit which explains the economics as determined from our production performance. Recoveries have been lowered slightly to correct our new estimates. We have shown, too, the data is substantially the same, the basic data is exactly the same. As you'll note that within a 40 acre spacing we have already recovered more than what we would have anticipated ultimate recoveries from 40 acre spacing.

Q How about the 80 acres, what percentage of the oil in place under 80 acres do you estimate you've recovered, or approximately?

A We estimate from Exhibit 4, the ultimate recovery to be 170,000 barrels based upon our performance now. We estimate 134,000 barrels under an 80 acre spacing and we have recovered 114,000 of the 143,000 estimated.

Q What is the present capability of your Number 1 well?

A The well currently has an allowable of 337 barrels per day and we flow the well at times over 400 barrels a day.

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It has a capacity to go way over this.

Q So it is holding out?

A Yes, sir.

Q How does that compare with the well to the South in Section 25 which is a Texas Sinclair State, I guess?

A We see very little similarity between the two wells. The Texas crude well's cumulative production was slightly less than 62,000 barrels; the current capacity fluctuates. In December

Q Will the drilling and completion of the Sunset International Well to the South have any bearing on this situation?

A Yes, sir, it would definitely present additional data, particularly bottom hole data that we do not currently have. It could either be within the same little lens or an additional lens; it could be a productive well.

Q Have you formed any opinion as a result of your study of the actual drainage area other than shown by the exhibits, as far as well Number 1 is concerned?

A Well, our opinion, of course, is based upon the calculations. We feel sure we're draining at least 134 acres, we don't know which direction this 134 runs; we've attempted to estimate this and it seems a little difficult to determine the

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radius of drainage.

Q Do you think you would be justified in drilling more wells on an 80 acre spacing basis if you went back to 80 acres?

A No, sir, we don't. I believe Exhibit 5 shows the economics of an 80 acre spacing would defer any additional development.

Q Would not encourage?

A Would not encourage.

Q Do you think that retaining 160 acre spacing the development in the area would be encouraged, additional wells?

A Yes, I know that our top management wants to see a step out. We feel, of course, we're just the unit operators, but I know they want to propose a well shortly within the unit.

Q If it went to 80 acre spacing would you or would you not drill that additional well?

A This is speculation again but I'm sure that with what we see now that they take a real long hard look and possibly use a Quija Board.

Q Would you not be drilling on 80 acres on account of the economic situation?

A Yes.

Q Do you have any recommendations to make to the Commission with respect to making permanent the special

field rules in the High Plains Pennsylvanian Pool?

A We propose to have the special pool rules to provide for the 160 acre spacing to be made permanent. If the Commission does not feel the request is inclusive we request that the rules stay on for our one additional area.

Q You would prefer to have it made permanent?

A Yes, sir.

Q Do you have any further testimony to give to the Commission?

A No, that's all I have, Mr. Hinkle.

MR. HINKLE: We would like to offer in evidence Exhibits 3, 4, and 5.

(Whereupon, Applicant's Exhibits 3, 4, and 5 offered into evidence.)

MR. UTZ: Without objection Exhibits 3, 4, and 5 will be entered.

(Whereupon, Applicant's Exhibits 3, 4, and 5 admitted into evidence.)

MR. HINKLE: That's all of this witness.

CROSS-EXAMINATION

BY MR. UTZ:

Q Mr. Shannon, is Huapache participating in the Sunset Well?

A No, sir, we are not.

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Q I believe that information will be available to you?

A Yes, in fact there is a representative here today with Sunset that will make a statement shortly, sir.

Q And as to whether you drill another well or not may be dependent on the results of the Sunset Well, is that right?

A Not necessarily, Mr. Utz. We feel now that there's a series of lenses. Whether they hit the lens or not may not defer our plans to go in another direction to another individual lens.

Q How did you arrive at the Number of acres that you suggested this well, did you use a volumetric reserve against your completion?

A Yes, that is correct, we took the basic information we had submitted at the original hearing which shows recoverable oil, barrels per acre, 2,140 barrels that we have estimated, and the data has not changed enough for us to change this basic information. We just divided this into the ultimate recovery that we were to expect from our production history. It is a comparison of volumetric versus production performance.

Q If Huapache does not drill another well and obtain another producing well in the unit, what purpose would 160 acre spacing serve; your ready production would be the only effect, would it not?

A Well, no, sir, development. This again is

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speculation but I do not believe that the operators, and this is speculation, would want to drill closer spacing than with the 160 in the area. This gives much more incentive to step out and look for additional lenses. I would say that it would strongly effect the development of our operating unit, and I know Sunsets men have based their assumption strongly on the spacing we have when they took the deal to drill South. The economics, I mean this drastically effects economics, too, sir.

Q Rate of return, you mean?

A Rate of return, yes, sir.

Q How long do you think it will be before Apache knows whether they will drill another well, or not?

A Within six months, I'm sure, possibly three months.

Q And it takes how long to drill?

A Thirty-two, little over thirty days.

Q And a year would probably determine whether or not you were able to obtain another producer in the unit?

A Yes, sir.

MR. UTZ: Any other questions?

REDIRECT EXAMINATION

BY MR. HINKLE:

Q In your opinion is the East Saunders Field, the characteristics about the same as the High Plains Pennsylvanian

Pool, characteristics of the pool?

A Very similar, yes, sir, and at one time we thought there was a possibility to interlink. In the past year we found they do not connect there.

Q The East Saunders has been developed on a 160 acre proration unit?

A Yes.

Q Had that pool been developed on 80 acres as far as economics is concerned, would the economics be very good as far as 80 acre spacing is concerned?

A No, sir, their economics are the same as ours, essentially, on 160 as versus--

Q It's doubtful they would ever drill any more wells there?

A Yes, sir, in the last year they drilled two additional wells.

MR. UTZ: Any other questions of the witness? The witness may be excused. Are there any statements in this case?

MR. PARKS: Yes, sir. My name is Lee Parks representing Sunset International Petroleum Corporation. We are drilling the well in the Southeast Quarter of Section 22. Our decision to drill was based on the economics of a 160 spacing. We started putting the deal together last October. We had hoped that by the time for this hearing we would have

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some bottom hole pressure and production history, however due to legal delays we did not spud the well until February 16th. We now expect the well to be completed March 20th. We concur in the recommendations that the 160 spacing be adopted for the field or if the Commission feels the evidence is not sufficient we would concur in recommending that the temporary order be continued for another year.

MR. UTZ: Thank you very much.

MR. RUSSELL: John Russell on behalf of Union Oil Company of California in that they support Huapache Oil Company in this case.

MR. DURRETT: The Commission has received a telegram from Amerada, supporting; letter from the Atlantic Refining Company, supporting; and a letter for Sun Oil Company supporting the application.

MR. UTZ: Any other statements? The case will be taken under advisement and the hearing is adjourned.

(Whereupon, the hearing was adjourned at 10:30 o'clock A.M.)

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E X H I B I T S

<u>NUMBER</u>	<u>MARKED FOR IDENTIFICATION</u>	<u>OFFERED</u>	<u>ADMITTED</u>
Applt's. 1	2	8	8
Applt's. 2	2	8	8
Applt's. 3	2	14	14
Applt's. 4	2	14	14
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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO) ss

I, BOBBY J. DAVIS, Notary Public 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.

Witness my Hand and Seal this 6th day of April, 1966.

Bobby J. Davis
NOTARY PUBLIC

My Commission Expires:

March 13, 1969

I do hereby certify that the foregoing is a complete record of the proceedings in the hearing before the New Mexico Oil Conservation Commission, Case No. 3206, held on the 9th day of March, 1966.

Thurston
New Mexico Oil Conservation Commission

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BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 10, 1965

EXAMINER HEARING

IN THE MATTER OF:

Application of Apache Corporation for a
pool extension and special pool rules,
Lea County, New Mexico.

Case No. 3206

BEFORE: DANIEL S. NUTTER, Examiner
 ELVIS A. UTZ, Alternate Examiner

TRANSCRIPT OF HEARING

MR. UTZ: Call Case Number 3206.

MR. DURRETT: Application of Apache Corporation for a pool extension and special pool rules, Lea County, New Mexico.

MR. HINKLE: Clarence Hinkle of Hinkle, Bondurant and Christy, Roswell, representing the applicant.

(Witnesses sworn.)

(Whereupon, Applicant's Exhibits 1 through 17 marked for identification.)

J O H N B L A C K, called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q Your name is John Black?

A Yes, sir.

Q By whom are you employed, Mr. Black?

A Apache Corporation.

Q In what capacity?

A District Geologist.

Q Where do you reside?

A Midland, Texas.

Q Have you previously testified before the Oil Conservation Commission?

A Yes, sir, I have.

Q Your qualifications are a matter of record, then?

A Yes, sir.

Q You are a geologist?

A Yes, sir.

MR. HINKLE: Are his qualifications acceptable?

MR. UTZ: Yes, sir.

Q (By Mr. Hinkle) Are you familiar with the Application of Apache Corporation in this case, 3206?

A Yes, sir, I am.

Q What is Apache Corporation seeking by this Application?

A We are seeking to expand the High Plains-Pennsylvanian Pool to include the Southwest Quarter of Section 14, the Southeast Quarter of Section 15, the Northeast Quarter of Section 22, and the Northwest Quarter of Section 23.

Q Now, Mr. Black, what are the present pool's limits?

A As I understand it, the present pool limits on the High Plains-Pennsylvanian Field include only the Southwest Quarter of Section 23, the quarter section where the well is located.

Q What else are you seeking by this application?

A We are seeking to establish temporary special pool rules including 160 acre well spacing.

Q Are you requesting an adoption of similar rules to those adopted in the East Saunders Permo-Pennsylvanian Pools?

A Yes, sir, we would like to adopt field rules similar

to the rules adopted by the East Saunders Permo-Pennsylvanian pool located approximately two and one half miles west of the High Plains field.

Q Has Apache recently completed a well within a mile of the Texas Crude, et al. well in the High Plains Pool?

A Yes, sir, the Delaware-Spache Number 1 High Plains unit was completed January 15 in the Northeast Quarter of Section 22 with perforations from 10,438 to 10,515.

Q Have you prepared a plat which shows the location of this well with reference to the High Plains initial well and also those in the East Saunders Pool?

A Yes, sir.

Q Refer to Exhibit Number 1 and explain what that shows.

A Exhibit Number 1 shows the outline of the High Plains working interest unit comprising 1840 acres. It also shows locations of wells in Section 17 and 20, which comprise the East Saunders Permo-Penn Field, and it also shows the location of the Apache Number 1 High Plains unit in Section 22 and the Texas Crude Sinclair Well in the Southwest Quarter of Section 23 which is now the one existing well in the High Plains Field.

Q Does this exhibit show the ownership of all the leases in the area which it covers?

A Yes, sir, the ownership is designated on the plat and I'd like to point out that all of this acreage on the plat is

State acreage with the exception of Section 21 in the Southeast Quarter of Section 11. A portion of Section 21 is government owned and the rest is fee.

Q And this exhibit also shows the outlines of the High Plains Unit, does it not?

A Yes, sir, that's correct.

Q Is this a field wide unit or regular unit or working interest unit, or what sort of unit?

A This is a working interest unit in which some eight or nine companies have dedicated acreage to the working interest unit.

Q Who is the operator of the unit?

A Delaware Apache Corporation.

Q Who are the working interest owners within the unit who participated in the drilling of this initial test well?

A If you will refer to Exhibit 2, we have the percentage of working interest in the various companies, which is self-explanatory.

Q And all of these companies have participated in the completion of the initial test well?

A That is correct.

Q Have you made a geological study of the High Plains area and of the well in the East Saunders Permo-Penn Field?

A Yes, sir.

Q Have you prepared a structural map as a result of this study?

A I have prepared the structural contour map shown on Exhibit 3 and this structural map is drawn on top of what is known as the Saunders lime; in the contoured area, it's fifty feet. The area comes from the Saunders Field in Section 17 and 20, down to and including the High Plains Pool.

Q What conclusions, if any, do you draw from this Exhibit?

A It appears at this time, from my work, that there is no vertical separation indicated between the Saunders field and the existing High Plains field. In other words, there's no structure separating the areas of production.

Q Now, as a result of this study, have you also prepared an isopach map?

A Yes, sir, this is our Exhibit 4, which is also in the pocket.

Q Now, refer to Exhibit 4 and explain what this shows.

A Exhibit 4 shows the East Saunders Field and the High Plains Field and the Apache Number 1 High Plains Unit; and the isopach is drawn on the net pay in the Saunders lime as taken from the electric logs run on the wells.

Q What conclusions, if any, did you draw from this Exhibit?

A There is no specific conclusion drawn from this exhibit.

Q Now, have you also prepared a cross section plat or map of the wells involving the East Saunders wells and the unit well and the initial High Plains well?

A Yes, sir.

Q Refer to Exhibit Number 5 and explain what this is.

A Exhibit Number 5 is a cross section of gamma ray sonic logs run on the Texas Crude 1-23 State to the Delaware-Apache Number 1 High Plains unit and to the Kern County Land Number 1 State, which was a discovery well in the East Saunders Field. The cross-section is lined up on a stratigraphic datum which is indicated in the green color marked on each of the logs as a stratigraphic marker which is correlative in each one of the wells. The top of the Saunders lime is indicated in each well and the Saunders lime itself is colored in blue.

The orange color indicates the porosity as taken from the sonic log, the effective porosity taken from the sonic log in each of the existing wells. The red color indicates the perforated zones in each of the three wells.

Q Do these wells, in your opinion, correlate very nicely, or unusually well?

A The only variation in the correlation is between the Texas Crude well and the Apache Number 1 High Plains Unit, in

which the top zone of porosity is not present in the Texas Crude well which is present in the Apache Number 1 High Plains. However, the correlation between the Apache Number 1 High Plains unit and the Kern County Number 1 State, I feel, is very good correlation, yes. The pay zone seems to correlate real well.

Q What distance separates these two units, the Kern County Number 1 and the High Plains Unit?

A Approximately two and one half miles.

Q Do you think that this correlation -- in your opinion, is this correlation unusually good to be at that distance?

A I think it is unusually good correlation and I have a strange feeling that the two areas of production may join into a common field.

Q Have you formed any opinion as to whether or not the East Saunders Pool well and your High Plains unit Number 1 well are producing from the same reservoir?

A I feel sure they are producing from the same pool.

Q At this stage, on account of the correlations, it looks like it might be probable?

A Right.

Q Now, Order No. R-2507 of the Oil Commission dated July 1st establishing a High Plains Pennsylvanian Pool included all the Southwest Quarter of Section 23. Due to the

information which has been obtained by the completion of the High Plains Number 1 well, in your opinion should the Pennsylvanian High Plains Pool be extended?

A Yes, sir.

Q What acreage, in your opinion, should the pool be extended to include?

A The Southwest Quarter of Section 14, Southeast Quarter of Section 15, Northeast Quarter of Section 22, the Northwest Quarter of Section 23, and you may as well put in the Southeast Quarter of Section 22, also.

Q In your opinion, is this acreage reasonably proven by the wells which have been drilled so far?

A Yes, sir.

MR. HINKLE: We would like to offer in evidence Applicant's Exhibits 1 through 5.

(Whereupon, Applicant's Exhibits 1 through 5 offered into evidence.)

MR. UTZ: Applicant's Exhibits 1 through 5 will be admitted into evidence.

(Whereupon, Applicant's Exhibits 1 through five admitted into evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Black, over in the East Saunders Pool, Skelly drilled a dry hole in the south end of that Pool. Which well

would that be on your exhibit?

A They actually completed the well; it's in the Southwest Quarter of Section 20.

Q That would be the 1-P?

A Right, as a pumping well, pumping 66 barrels a day, and the well has subsequently been plugged.

Q It did produce for a short time?

A Right.

Q The Texas Crude well was potentialed for 864 barrels; what's that well capable of making now?

A I think it makes about 50 barrels a day. I think primarily due to the thin nature of the pay, there's only about five feet or so.

Q Now, how much cumulative production have you obtained from your High Plains Number 1?

A We haven't got our first month's production in yet, but our allowable is set at 187 barrels a day.

Q It can still make that 187 barrels without any problem?

A Right.

MR. UTZ: Are there any further questions of Mr. Black?

You may be excused.

(Witness Excused.)

L A R R Y S H A N N O N, called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HINKLE:

Q What is your full name, please?

A Larry Shannon.

Q By whom are you employed?

A By Apache Corporation.

Q In what capacity?

A As Area Engineer.

Q You are a petroleum engineer?

A Yes, sir, I am.

Q Have you previously testified before the Commission?

A Yes, sir, I have.

Q And your qualifications are a matter of record?

A Yes, sir.

MR. HINKLE: Are the qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q (By Mr. Hinkle) Have you made a study of the wells which have been drilled in the High Plains-Pennsylvanian Pool including the Delaware Apache Number 1 and the wells which have been drilled in the East Saunders Permo-Pennsylvanian Pool in Lea County?

A Yes, sir, I have.

Q Are you familiar with the completion of the Delaware-Apache Number 1 or the High Plains unit well and the drill stem tests which were made in connection with them?

A Yes, sir.

Q Have you prepared an Exhibit which shows the well history and the drill stem test which was made in connection with this well?

A Yes, on Exhibit 6 we show the completion data, the way that the well was completed and the dates of the potential. I think it's fairly self-explanatory. The drill stem tests.

Q You might point out the drill stem tests and the results of them.

A The drill stem tests, there were two; the first test took the Plains zone on the Saunders Field and if you refer to Exhibit Number 5, the top zone and the well flowed for two and one half hours. We had 148 barrels of oil and a surface pressure of 410 to 480 psi. After it was shut-in, the gas and solution unloaded an additional 61 barrels of oil after tool was closed, and then we reversed out 20 more barrels of oil. The shut-in pressures are shown.

Q What is the flowing pressure?

A The flowing pressures, the initial flowing pressure was 120 and the final pressure was 3414.

Q What is the shut-in pressure?

A And the shut-in pressure of 35 and the initial shut-in was 3942 and the final shut-in was 120, final shut-in was 3923; and then drill stem test number 2 was 10,475-10,525, this comprised the two lower zones shown on Exhibit 5. This was open for one and one third hours, flowed 71 barrels of oil in one hour, surface pressure was 480 pounds, it unloaded an additional 35 barrels after the tool was closed, and reversed out 10 barrels of oil. The initial flowing was 2852 and the final flowing was 3159. The initial shut-in of 30 minutes was 3369 and the final shut-in pressure of 90 minutes was 3687.

Q This also shows the perforation intervals?

A Yes, sir, the next part shows the intervals on a selective perforation technique and we have a total of 12 holes comprising the three main zones of the reservoir.

Q They are shown on Exhibit Number 5?

A Yes, sir. The stimulation treatment is shown next of 250 gallons of mud clean up acid.

Q But you didn't frack this well?

A No, sir.

Q Go ahead.

A The potential test was taken on January 14th, 1965. The well flowed 631 barrels of oil, no water, in 12 hours on one half inch choke, with a tubing pressure of 640. The GOR was 1188 to 1, the oil gravity was 44.1 degrees Fahrenheit,

the gas gravity was 0.87; this gravity was calculated at a rate of 162 barrels per 24 hour day.

Q Have you prepared an exhibit which shows the reservoir rock and fluid properties as indicated in this Number 1 well?

A Well, we'll refer to Exhibit Number 7. The depth of the top of the formation is shown from our open hole logs at 10,437. The gross pay is computed from our log data. The net effective pay we determined also from the logs, from both the micro log and the sonic log. The porosity was computed from the sonic log to be 10 per cent. The water saturation we calculated through our logs to be 32 per cent. The original reservoir pressure was 3942 taken from our drill stem test number 1. The saturation was from a bottom hole fluid sample which was taken by Core Laboratories and was an actual measurement of 2625. The reservoir temperature was also computed from this bottom hole fluid sample to be 124 degrees Fahrenheit. The original solution gas-oil ratio and the cubic feet per barrel was measured through our fluid samples to be 1125, and that is with 40 pounds separator pressure. The formation volume factor was also computed from this to be 1653. The oil gravity was found to be 44.1, specific gravity of gas was measured by three different gas companies and it came out 0.87.

Q Have you made a comparison of the reservoir rock and fluid properties of the High Plains Unit Number 1 Well with the

East Saunders Permo-Penn Pool?

A Yes, sir, I have, and this is Exhibit Number 8, and we took the evidence that Kern County Land Company presented at their various hearings on the East Saunders Permo-Penn pool and compared their data with our data that we have established from our High Plains Unit Well Number 1, and I think it's rather self-explanatory and the similarity of the data is to me, very indicative that we could be in definitely the same reservoir and like Mr. Black says, possibly the same pool.

The various other data was all from the same method. Now, Kern County Land Company ran a permeability test from core and we had to assume this from our pressure measurement on our drill stem tests, which was calculated to be 103 millidarcies versus core data of Kern County Land wells to average 46.2 millidarcies.

The original reservoir pressures, in all, were also measured through a bottom hole fluid sample, so we attempted to compare it as near as we could to their actual measurements.

Q Did you draw any conclusions from this comparison?

A It's very similar, sir.

Q Does that indicate it might be the same reservoir?

A I think with the limited information we have at this time, it very definitely could be.

Q Now, have you prepared any information with regard

to comparison of the drill stem test data of the East Saunders Pool against the High Plains Unit Well Number 1?

A Well, let's refer to Exhibit Number 9, this is a graphic comparison of the drill stem tests taken on the Kern County Land Company's Well Number 1; this wasn't stated on our exhibit, but it's Number 1 well.

Q That's your continuous line?

A The dashed line. And the solid line is our High Plains Unit Well Number 1. The time is relative because the pools are not open for the same intervals but what we wanted to graphically discover were the curves and the angles of the curves and how they compared in the two wells and of course, the pressures at each individual point; and although they flowed their well on different conditions than we did, varying their surface choke from 1/8 to 1/2, we maintained ours at 3/4 and 1/2 each, the curves are very similar.

What I would like to refer to now is in the form of a calculation, but is a graphic display. At the point of the final flow where the well was shut-in for the final flow, the curves are very rapid in their build ups and in a straight line, almost no bends, up to within just a few minutes on both wells.

Q Have you made a reservoir study from the information available to determine the expected oil recovery from the High Plains Unit Number 1 Well?

A Well, if we'll refer to Exhibit 10, I have attempted a preliminary reservoir calculation. The porosity as shown is taken from the sonic log and is shown to be 10 per cent, the water saturation is calculated from the sonic log and shown to be 32 per cent. The net effective pay was also computed from the logs to be 25 feet, the recovery factor is assumed and this is from experience in that area, particularly the Saunders and the East Saunders Pool, both to the west of our present pools, and I might add is a conservative estimate of the recovery found in this reservoir.

The formation and volume factor isn't actually measured. The oil in place was computed to be 319 barrels per acre foot or 7950 barrels per acre. At the bottom of this Exhibit, I show, at the present time, since we assumed that we can effectively drain 160 acres, we have shown the various recoverable oil that we anticipate from the 40 acre spacing, the 80 acre spacing and the 160 acre spacing. The 40 acre spacing, we anticipate 85000 barrels per well; on the 80 acre spacing, we anticipate 170,000 barrels per well, and on 160 acre spacing, we anticipate 340,000 barrels per well. The recoverable gas is shown on the bottom.

Q Have you made an economic evaluation with respect to the High Plains Pool?

A Yes, sir, this is Exhibit Number 11. The oil value that we presently have is \$3.01 per barrel, less 14¢ per barrel

for trucking. We anticipate a pipe line in the near future, but there is no contact as yet.

MR. UTZ: Is there a pipe line in the East Saunders?

MR. SHANNON: Yes, sir, there is. The gas value, we have signed a contract with Atlantic Refining Company and this is an average, because of all the factors, at 12¢ per MCF of gas. The net interest leases are 87.5 per cent. The production taxes are 6.1 per cent. The lifting cost is 20¢ per barrel, which is throughout the field once gas lift is installed. Our per well investment costs are shown for a flowing well of \$145,000.00 and an additional \$15,000.00 per well for artificial lift. This gives a total cost per well of \$160,000.00.

The next part is the economics for one well, this is considering one well on the various spacings. The recoverable oil that we have shown in previous exhibits and the recoverable gas from the previous exhibits and the computations that we figure on a 40 acre spacing, we have a profit of \$33,000.00 or a profit to investment ration of 0.206 to 1. On 80 acre spacing we would have a profit of \$229,000.00 or a ratio of 1.49 to 1; and on 160 acre spacing we will have a profit of \$637,000.00, or a ratio of 3.99 to 1.

Q Now, on the application of Apache Corporation, it is proposed that temporary special field rules be adopted for the

High Plains-Pennsylvanian Pool as extended, which are similar to those adopted in the East Saunders Pennsylvanian Pool, which includes 160 acre spacing. Do you have any comments to make with respect to these proposed rules?

A Yes, sir, Rules 1, we would like to state that each well completed or drilled be located on a standard proration unit containing 158 to 162 acres substantially in the form of a square constituting a governmental quarter section.

Rules 2, each well on each 160 acre unit be located within 150 feet of the center of either the Northeast Quarter or the Southwest Quarter of the government quarter section in which the well is located.

Rule 3, that a standard proration unit be assigned a 160 acre proportional factor of 7.67 for allowable purposes and in the event there is more than one well on a 160 acre proration unit, the operator may produce the allowable assigned to the unit in any proportion.

Rule 4, that the Rules be adopted --

Q Well, you recommend --

A Yes, we recommend that the rules be adopted for a period of one year to permit additional production history and experience to be gained by the drilling of other wells in the area.

Q In your opinion, based upon the information which is presently available, and including the information obtained from

the drill stem test in the East Saunders Permo-Penn Pool, would this effectively and efficiently drain 160 acres?

A Yes, sir, with the limited data we have, I feel very frankly that it will, and I might add that we anticipate two additional wells as soon as the Commission has ruled upon our case.

Q You have specific locations for those wells at this time?

A I have one in the Southwest Quarter of Section 15, and one in the Northwest Quarter of Section 22.

Q Are both these wells going to be drilled at the same time, or are you going to drill them one at a time?

A Yes, sir, we propose to drill, have approval for both wells, and we'll drill one well and if it's a producing well, we will move into the second one.

Q Are you going to start immediate operations on these wells?

A This month, we hope.

Q In your opinion, will it be in the interest of conservation and the prevention of waste to grant temporary 160 acre spacing and proration units for the High Plains Pennsylvanian Pool as extended?

A Yes, sir, very much so and we feel that possibly in time, if this field develops to the extent that we hope

optimistically there may even be in the future, pressure maintenance, and we would like to have this field developed on the 160 acre spacing at this time for that reason.

Q In your opinion, will the establishment of such field rules prevent economic loss caused by the drilling of unnecessary wells, and will it otherwise prevent waste and protect correlative rights?

A Yes, in fact, I'd like to state at this time the production history of the East Saunders Field. The field was discovered in March of 1962 and as of January 1st, of this year, it produced over 670,000 barrels, mainly from the three wells and the original well to date has produced over 280,000 barrels.

Q Is that indicative of anything in your opinion?

A From the evidence I saw or submitted to the Commission it appears that it is draining even more than 160 acres. It's reasonable to assume that the reservoir is draining more than 160 acres.

Q I believe that Mr. Black testified that all of the lands in the High Plains Unit are state lands; and all of the lands which would be in the pool, if the High Plains pool is extended, are state lands. Have you made an investigation to determine whether or not the lands which you propose to include in the High Plains Pool are all owned by the same beneficiary?

A Yes, sir, I have, Exhibit Number 12. We contacted

the Commissioner of Public Lands and he was kind enough to send us a letter showing that all of the land within our High Plains Unit is one common beneficiary for the total 160 acres.

Q That is Common Schools?

A Common School System.

Q Now, were all of the operators in the High Plains unit sent copies of the application in this case?

A Yes, sir, they were.

Q Have you had any protests from any of them?

A No, sir, none at all.

Q Have you had any indications that some or all of them approved this application?

A Yes, sir, Exhibits 13 through 17 are recommendations. From Pure Oil Company on Exhibit 13, they concurred with the 160 acre spacing drilling unit as proposed. Sun Oil Company on Exhibit 14, Texas Pacific Oil Company on Exhibit 15, Tenneco Oil Company on Exhibit 16, and the Atlantic Refining Company on Exhibit 17. I'd like to state at this time that Atlantic Refining Company has purchased Honda Oil Company's interest and have not changed their lease, and although our lease shows Honda Oil Company on it, Atlantic Refining Company is managing their interests at this time.

Q Do you have any further testimony to add?

A No, sir.

MR. HINKLE: We would like to offer Exhibits 6 through 17, inclusive into evidence.

(Whereupon, Applicant's Exhibits 6 through 17 offered into evidence.)

MR. UTZ: Applicant's Exhibits 6 through 17 will be admitted into evidence.

(Whereupon, Applicant's Exhibits 6 through 17 admitted into evidence.)

MR. HINKLE: I believe that's all we have.

MR. UTZ: Does anyone have any questions of Mr. Shannon? You may be excused.

(Witness excused.)

MR. UTZ: Do you have anything further, Mr. Hinkle?

MR. HINKLE: No.

MR. UTZ: Does anyone have anything they wish to offer in this case?

MR. DURRETT: I might state that we have a letter from the Ruidoso Petroleum Company concurring in your proposal.

MR. UTZ: If there is nothing further, we will take the case under advisement and the Hearing is adjourned.

(Whereupon, the Hearing was adjourned at 11:45 o'clock A.M.)

I N D E X

WITNESS	PAGE
JOHN BLACK	
Direct Examination by Mr. Hinkle	2
Cross Examination by Mr. Utz	9
LARRY SHANNON	
Direct Examination by Mr. Hinkle	11

E X H I B I T S

EXHIBIT	MARKED	OFFERED	ADMITTED
App. Exs. 1-17	2		
App. Exs. 1-5		9	9
App. Ex. 6-17		23	23

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

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, a Notary Public, do hereby certify and swear that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by JOHN ORFANIDES, Court Reporter, and that the same is a true and correct record of the said proceedings.

John Orfanides
Ada Dearnley
NOTARY PUBLIC

My Commission Expires:
June 19, 1967.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 3206, heard by me on May 10, 1965.
Thurston H. [Signature] Examiner
New Mexico Oil Conservation Commission

Case No. 3206
 Exhibit #10
 2/10/65

OIL RECOVERY CALCULATIONS

HIGH PLAINS UNIT NO. 1

UNDESIGNATED POOL

Reservoir Volume Calculations

Porosity (Sonic Log)	10%
Water Saturation (Calculated)	32%
Net Effective Pay	25 feet
Recovery Factor (Assumed)	27%
Formation Volume Factor	1.653

Oil In Place, Bbls per acre-foot

(7758) (.10) (1.00-0.32) (1/1.653) = 319 Bbls/ac-ft

Recoverable Oil, Bbls per acre-foot

(319) x (0.27) = 86 Bbls/ac-ft

Oil In Place, Bbls per acre

(310) x (25) = 7950 Bbls/acre

Recoverable Oil, Bbls per acre

(7950) x (0.27) = 2140 Bbls/acre

	<u>40-Acres</u>	<u>80 Acres</u>	<u>160 Acres</u>
Oil In Place, Bbls	318,000	635,000	1,270,000
Recoverable Oil, Bbls	85,000	170,000	340,000
Recoverable Gas, MMCF	153	306	612

BEFORE EXAMINER NUTTER
 OIL CONSERVATION COMMISSION
 EXHIBIT NO. _____
 CASE NO. _____

Case No. 3206

Exhibit # 11

2/10/65

ECONOMIC EVALUATION

HIGH PLAINS UNIT WELL NO. 1

UNDESIGNATED POOL

BASIC DATA

1. Oil Value	\$3.01/Bbl less \$0.14/Bbl for trucking
2. Oil Purchaser	Indiana Oil Purchasing Company
3. Gas Value	\$0.12/MCF
4. Gas Purchaser	Atlantic Refining Company within 60 days
5. Net Interest	87.5%
6. Production Taxes	6.1%
7. Lifting Costs	\$0.20 per barrel (average price of oil)
8. Per Well Investment Costs	\$145,000 for flowing well. 15,000 for artificial lift
Total Costs	\$160,000

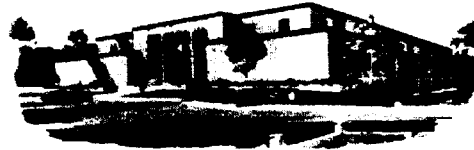
ECONOMICS FOR 1 WELL

	<u>Well Spacing</u>		
	40 Acre	80 Acre	160 Acre
1. Recoverable Oil, Bbl	85,000	170,000	340,000
2. Recoverable Gas, MMCF	153	306	612
3. Oil Revenue \$	245,000	490,000	980,000
4. Gas Revenue	18,400	36,700	73,400
5. Total Revenue \$	263,400	526,700	1,053,400
6. Net Revenue after Royalty and Taxes	216,000	433,000	865,000
7. Operating Costs	17,000	34,000	68,000
8. Net Income	199,000	399,000	797,000
9. Investment	160,000	160,000	160,000
10. Profit	33,000	239,000	637,000
11. Profit-to-investment Ratio	0.206 to 1	1.49 to 1	3.99 to 1

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 11
CASE NO. 3206

Case No. 3206
Exhibit # 12
2/10/65

State of New Mexico



Commissioner of Public Lands

GUYTON B. HAYS
COMMISSIONER



P. O. BOX 1148
SANTA FE, NEW MEXICO

February 3, 1965

Mr. Larry Shannon
Delaware-Apache Corporation
2005 Wilco Building
Midland, Texas

In RE: High Plains Unit
T14S-R34E

Dear Mr. Shannon:

In regard to our telephone conversation of February 1, 1965,
the State Land Office records reflect that all of the follow-
ing land is owned by the State of New Mexico with one common
beneficiary being Common Schools:

Section 14 $N\frac{1}{2}SW\frac{1}{4}$ and $W\frac{1}{2}SE\frac{1}{4}$
Section 15 All
Section 22 $N\frac{1}{2}$
Section 23 $N\frac{1}{2}$
All in T14S-R34E

Very truly yours,

GUYTON B. HAYS,
Commissioner of Public Lands

By *Ray D. Graham*

RAY D. GRAHAM, Assistant Director,
Oil and Gas Department

GBH/RDG/kcl

AIR MAIL
SPECIAL DELIVERY

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
<i>Graham</i> EXHIBIT NO. <u>12</u>
CASE NO. <u>3206</u>

Case No. 3206
Exhibit # 13
2/10/65

50th YEAR



THE PURE OIL COMPANY

SOUTHERN PRODUCING DIVISION • MIDLAND DISTRICT OPERATIONS
P. O. BOX 671 • MIDLAND, TEXAS 79701 • AREA CODE 915-MU 2-3725

January 29, 1965

Apache Corporation
2005 Wilco Building
Midland, Texas

Attention: Mr. Hal S. Dean

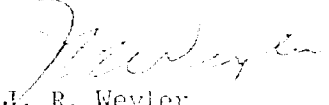
RE: High Plains Unit
Lea County, New Mexico

Gentlemen:

In reference to the above unit, we wish to advise that The Pure Oil Company approves your Application to The New Mexico Oil Conservation Commission for temporary 160 acre spacing in the above unit. We also favor the adoption of special field rules in the above unit similar to those of the East Saunders Permo Penn Pool.

The fixed well locations in the NE/4 of SW/4 of each 160 acre drilling unit also meets with our approval.

Yours very truly,


J. R. Weyler
District Operations Superintendent

JRW/JFW:cs

BEFORE EXAMINED MUTTER	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	7
CASE NO.	3206

Case No. 3206
Exhibit # 14
2/10/65



TOM F. HILL
Manager, Southwest Division
A. S. RHEA
Superintendent Operating Department

PRODUCTION DEPARTMENT **SUN OIL COMPANY** SOUTHLAND CENTER, P.O. BOX 2880, DALLAS, TEXAS 75221

February 3, 1965

Oil Conservation Commission
State of New Mexico
State Land Office Building
Santa Fe, New Mexico

Gentlemen:

Sun Oil Company has been notified that Case 3206, the application of Apache Corporation for a pool extension and special pool rules for the High Plains-Pennsylvanian Pool, Lea County, has been set for examiner hearing on February 10, 1965. We understand that the applicant will request temporary 160-acre spacing for the pool and for an extension to include its Delaware-Apache Well #1 in the NE/4 of Section 22, T14S, R34E.

This is to notify you that Sun Oil Company concurs with the above proposals of Apache Corporation.

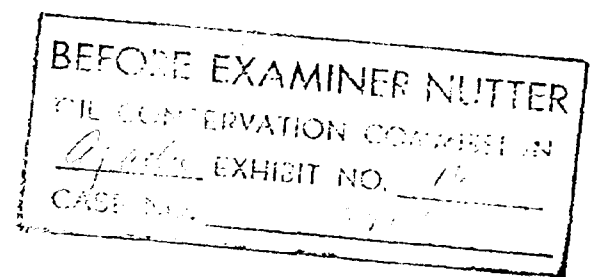
Very truly yours,

SUN OIL COMPANY

A. R. Ballou

By: *Granville Dutton*
Granville Dutton

GD:mo



Case No. 3206
Exhibit # _____
2/10/65

TEXAS PACIFIC OIL COMPANY
BOX 747
DALLAS, TEXAS 75221

J. H. DOUGHMAN
TECHNICAL ASSISTANT TO
VICE PRESIDENT, PRODUCTION

2700 FIDELITY UNION TOWER

January 28, 1965

Mr. Hal S. Dean
Apache Corporation
2005 Wilco Building
Midland, Texas 79704

Dear Mr. Dean:

We have reviewed your letter of January 25, 1965 proposing the drilling of additional development wells in the High Plains Unit, Lea County, New Mexico and forwarding the field rules which you have applied for in the High Plains Pennsylvanian Pool.

With regard to these proposed field rules, our examination of the data so far developed in the High Plains Unit No. 1 well leads to the conclusion that the characteristics of this pool will be similar to those of the East Saunders Permo-Pennsylvanian Pool as you suggest. Texas Pacific Oil Company is, therefore, in agreement with and supports your application to the New Mexico Oil Conservation Commission dated January 22, 1965, which proposes the adoption of temporary special field rules setting out 160 acre standard proration units.

If we can assist you further in this matter, please advise.

Yours very truly,

TEXAS PACIFIC OIL COMPANY

J. H. Doughman
J. H. Doughman

JHD:RSW:dl

BEFORE CLARENCE E. MUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. <u>15</u>

Case No. 3206
Exhibit # 16
2/10/65



TENNECO OIL COMPANY • P. O. BOX 1631 • 1800 WILCO BUILDING • MIDLAND, TEXAS 79701
January 29, 1965

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

Re: Apache Corporation's Application
for Field Rules to Include 160-acre
Spacing, High Plains Unit,
Lea County, New Mexico

Gentlemen:

Tenneco Oil Company recommends that the temporary field rules proposed by Apache Corporation for the High Plains Unit, Lea County, New Mexico, be adopted. Specifically, these rules are as follows:

1. That temporary well spacing and proration units be fixed at 160 acres for a period of one year.
2. Fixed well locations will be established in the NE/4 or SW/4 of each 160-acre drilling unit.
3. That the temporary special field rules to be adopted for the subject field be similar to those of the East Saunders Permian-Pennsylvanian Pool.

Yours very truly,

TENNECO OIL COMPANY

A handwritten signature in cursive script, appearing to read "A. W. Lang".

A. W. Lang
District Production Superintendent

BED:j

BESSIE EXAMINER NUTTER	
OIL CONSERVATION COMMISSION	
EXHIBIT NO.	<u>16</u>
CASE NO.	<u>3206</u>

ATLANTIC

THE ATLANTIC REFINING COMPANY
INCORPORATED - 1870
PETROLEUM PRODUCTS

Case No. 3206
Exhibit # 11
2/10/65

DOMESTIC PRODUCING DEPARTMENT
NEW MEXICO DISTRICT

BOONE MACAULAY, DISTRICT MANAGER
R. F. CHAMPION, DISTRICT LANDMAN
W. T. EASTES, DISTRICT GEOPHYSICIST
E. R. DOUGLAS, DISTRICT GEOLOGIST
A. D. KLOXIN, DISTRICT DRILLING & PROD. SUP'T.
W. P. TOMLINSON, DISTRICT ENGINEER
B. R. WARE, ADMINISTRATIVE SUPERVISOR

MAILING ADDRESS
P. O. BOX 1978
ROSWELL, NEW MEXICO

January 27, 1965

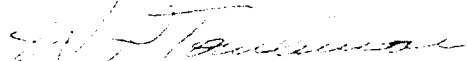
Apache Corporation
2005 Wilco Building
Midland, Texas 79704

Re: Field Rules, High Plains
Pennsylvanian Pool

Gentlemen:

We have reviewed your application for temporary 160-acre spacing rules for the High Plains Pennsylvanian Pool. Atlantic is in agreement with the rules proposed. Please submit this letter to the New Mexico Oil Conservation Commission at the time of the hearing as evidence of Atlantic's position in this matter.

Yours very truly,



W. P. Tomlinson

WPT:la

