CASE 2844: Application of SINCLAIR for creation of TEAS PENNSYLVANIAN GAS POOL, LEA COUNTY, NEW MEXICO.

tion, Transcript,

Exhibits, Etc.

CASE No. 2844 Order No. R- 2627 NOMENCLATURE , 19<u>63</u>, the Commission,

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JMD/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:

APPLICATION OF SINCLAIR OIL & GAS COMPANY FOR THE CREATION OF THE TEAS-PENNSYLVANIAN GAS POOL AND FOR SPECIAL TEMPORARY 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 , 1963, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this day of Duc a quorum being pr sent, having considered the application, the evidence adduce(, and the recommendations of the Examiner, Daniel S. Nutter , and being fully advised in the premises,

FINDS:

- 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, Sinclair Oil & Gas Company, seeks the creation of a new gas pool for Pennsylvanian production and the promulgation of temporary special rules and regulations governing said pool, including a provision for 640-acre spacing units.
- (3) That a new gas pool for Pennsylvanian production should be created and designated the Teas-Pennsylvanian Gas Pool, This pool was discovered by the Sinclair Oil & Gas Company Mahaffey-Federal (ARC) Well No. 1, located in Unit C of Section 14, Township 20 South, Range 33 East, NMPM, Lea County, New Mexico. The cop of the perforations in the Pennsylvanian formation is at-

(4) That the evidence interior that the erwealisty of the Pennayloa

(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 the acre spacing units should be promulgated for the prestability of the contract of the cont

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.

(f) That special rules and regulations should be established for a temporary period to expire one year from the date that a pipeline connection is first obtained for a well in the pool; the during this temporary period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.

- That this case should be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the **present the respection**. Gas Pool, at which time the operators in the subject pool should appear and show cause why the **restriction** of Gas Pool should not be developed on 160-acre spacing units.
- That the first operator to obtain a pipeline connection for a well in the state basin was as Pool should notify the Commission in writing of such fact, and that the Commission should thereupon issue a supplemental containing an exact date for reopening this case

tor reopening this case
(1) That a new pool in Lea County, New Mexico, classified
as a gas pool for Pennsylvanian production is hereby created
and designated the Pennsylvanian Gas Pool,
consisting of the following-described area:
TOWNSHIP 20 SOUTH, RANGE 33 EAST, NMPM
Sec 11: S/2 Sec 14: N/2 Sec 14: N/2 (2) That the application of Sinclair Oil of gar Company for 640-acre, spacing finishin Sid Tran Pennsylvation for Peal Leaves the same (2) That Special Rules and Regulations for the Teas-
Pennsylvanian Gas Pool are hereby promulgated as
follows: affortive Tule 1 1003.
SPECIAL RULES AND REGULATIONS FOR THE TEAS - PENNSYLVANIAN GAS POOL
RULE 1. Each well completed or recompleted in the

Teas-Pennsylvanian Gas Pool or in the

vanian formation within one mile of the _

Pennsyl-

Pennsylvanian Gas Pool, 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 completed or recompleted in the TeasPennsylvanian Gas Pool shall be located on a standard unit
consisting of approximately 320 acres which shall comprise any
two contiguous quarter sections of a single governmental section,
being a legal subdivision (half section) of the United States
Public Lands Survey. For purposes of these rules a unit consisting of between 316 and 324 contiguous surface acres shall be
considered a standard unit.

are complied with:

- (a) The non-standard unit consists of quarterquarter sections or lots that are contiguous by a common bordering side.
- (b) The non-standard unit lies wholly within a single governmental section and contains less acreage than a standard unit.
- (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
- (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days

after the Secretary-Director has received the application.

Pennsylvanian Gas Pool shall be located no nearer than 1650 feet to the outer boundary of the section and no nearer than 330 feet to any governmental quarter-quarter section line.

RULE 5. The Secretary-Director may grant an exception to the 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. 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 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.

IT IS FURTHER ORDERED:

- the Pennsylvanian formation within the Teas—

 Pennsylvanian Gas Pool or within one mile of the Teas—

 Pennsylvanian Gas Pool that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of Rule 4. The operator of any such well shall notify the Hobbs District Office in writing of the name and location of the well on of before
- (2) That any operator desiring to dedicate 640 acres to a well presently drilling to or completed in the <u>Teas-</u>

 Pennsylvanian Gas Pool shall file a new Form C-128 with the Commission on or before Juneary 1, 1967.

ing in June, 1964, at which time the operators in the subject

(3) That this case shall be reopened at an examiner hearing one year from the date that a pipeline connection is first
betained for a well in the
hich time the operators in the scaped pool may appear and show
ause why the himself and contained not be developed
on 160-acre spacing units.

(4) That the first operator to chaque a significan connection for a well in the character for and that the Commission the Commission in writing of such fact, and that the Commission will thereupon Issue a supplemental order designating an exact date for reopening this case.

(5) That jurisdiction of the rouse is retained for the entry of such Eurther orders as the Commission may do a necessary.

DONE at Santa Fo, New McAico, on the day and year largin-above designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

JACK H. CAMPPELL, Chairman

B. D. WASHIR, Meddwer

SEAL

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

esr/



BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF SINCLAIR OIL & GAS COMPANY TO CREATE A NEW POOL FOR PENNSYLVANIAN GAS PRODUCTION AND FOR TEMPORARY OP-ERATING RULES IN LEA COUNTY, NEW MEXICO

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case no. 2844 order no.

APPLICATION

SINCLAIR OIL & GAS COMPANY, a Maine corporation with an operating office in Midland, Texas, hereby makes application for an order creating a new pool for Pennsylvanian gas production and adopting temporary operating rules and in support thereof represents to the Commission:

1.

That the applicant, Sinclair Oil & Cas Company, seeks the creation of a new gas pool for Pennsylvanian production and the promulgation of temporary special rules and regulations governing said pool, including a provision for 640-acre spacing units.

2.

That a new gas pool for Pennsylvanian production should be created and designated the Teas Pennsylvanian Gas Pool. This pool was discovered by the Sinclair Oil & Gas Company Mahaffey-Federal (ARC) Well No. 1 located 660 feet from the North Line and 1,980 feet from the West Line of Section 14, Township 20 South, Range 33 East, Lea County, New Mexico, The top of the perforations in the Pennsylvanian formation is at 13,294 feet.

3.

That temporary special rules and regulations establishing 640-acre spacing units should be promulgated for the subject pool in order to prevent the possibility of economic loss resulting from the drilling of unnecessary wells and in order to allow the operators in the subject pool to gather information concerning the reservoir

characteristics of the pool; that the known characteristics of the reservoir indicate that the subject pool can be efficiently and economically drained on 640-acre spacing units.

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That the temporary special rules and regulations, in order to assure orderly development of the pool and protect correlative rights, should provide that each well completed in the subject pool shall be located no nearer than 1,650 feet to the outer boundary of the section and no nearer than 330 feet to any governmental quarter-quarter section line; that each well completed shall be located on a standard unit containing 640 acres, more or less, consisting of a single governmental section.

5.

That special rules and regulations should be established for a temporary period to expire one year from the date that a pipe line connection is first obtained for a well in the pool; that during this temporary period, all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.

WHEREFORE, applicant prays that the Commission set this application for public hearing before an Examiner in Santa Fe, New Mexico, that notice be issued according to law and that upon hearing this application be granted.

HORACE N. BURTON P. O. Box 1470 Midland, Texas

GILBERT, WHITE AND GILBERT

Bishop Building Santa Fe, New Mexico

ATTORNEYS FOR APPLICANT

GILBERT, WHITE AND GILBERT

ATTOENEYS AND COUNSELORS AT LAW

BISHOP BUILDING

SANTA FE, NEW MEXICOLY

Cus 2,844

CARL H. GILBERT - (1891-1963)
L.C. WHITE
WILLIAM W. GILBERT
SUMNER S. KOCH WILLIAM B. KELLY

June 5, 1963

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

Attention: Ida Rodriguez

Gentlemen:

Enclosed in triplicate is Sinclair Oil & Gas Company's application to create a new pool for Pennsylvanian Gas Production and for temporary operating rules in Lea County, New Mexico.

We would appreciate you setting this down for hearing before an examiner at an early date.

Very truly yours,

L. C. WHITE

LCW/ab Encls.

DOCKET MAILED

SUPPLEMENTAL DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 26, 1963

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

The following case: will be heard before Daniel S. Nutter, Examiner, or Elvis A. Utz, as alternate examiner:

CASE 2847:

Application of Neil H. Wills for certain unorthodox oil well locations, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the non-standard location for several oil producing wells in his Russell Pool Waterflood Project, Russell Pool, Eddy County, New Mexico.

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 26, 1963

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, as Alternate Examiner:

CASE 2821: (Continued from June 5, 1963 examiner hearing)

Application of D. W. Falls, Inc., for an extension of Order No. R-2213, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks the extension of Order No. R-2213, which order assigned a temporary deliverability for allowable purposes to applicant's Federal Well No. 2-11, located in Unit O of Section 11, Township 28 North, Range 13 West, Basin-Dakota Gas Pool, San Juan County, New Mexico.

- CASE 2833: Application of Tenneco Oil Company for approval of a unit agreement, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Central Cha Cha Unit Area comprising 674.05 acres, more or less, of Federal land located in Sections 30 and 31, Township 29 North, Range 13 West, San Juan County, New Mexico.
- CASE 2824: Application of Tom Brown Drilling Company for a unit agreement, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Runyan Ranch Unit Area comprising 10,890.12 acres of State and Federal lands in Township 19 South, Range 21 East, Eddy County, New Mexico.
- CASE 2835: Application of Jake L. Hamon for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the Southeast Bell Lake Unit Area comprising 9,597.09 acres of State, Federal and Fee lands in Townships 24 and 25 South, Ranges 34 and 35 East, Lea County, New Mexico.
- CASE 2836: Application of Union Oil Company of California for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the West McDonald Unit Area comprising 2,320 acres of State and Fee lands in Township 14 South, Range 35 East, Lea County, New Mexico.
- Case 2037. In light of Continental Oil Company for a unit agreement, Chaves County, New Mexico. Applicant, in the Live styled cause, seeks approval of the Eastcap Queen Pool Unit Area

compress in 1999 thes of State and Fee lands, located in found ip 14 outly, I enge 31 East, Chaves County, New Mexico.

CASE 2838:

Application of Continental Oil Company for a waterflood project, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Queen formation, Caprock Queen Pool, through 17 wells located in Sections 22, 23, 27, 34, and 35, Township 14 South, Range 31 East, Chaves County, New Mexico.

CASE 2839:

Application of Amerada Petroleum Corporation for a multiple completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Order No. R-1750-A to permit the multiple completion (tubingless), of its Wimberley Well No. 13, located in Unit N of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, to permit the production of gas from the Langlie Mattix Pool, the production of oil from the Justis-Blinebry Oil Pool, and the disposal of salt water into the San Andres formation through parallel strings of casing cemented in a common well bore.

CASE 2840:

Application of Amerada Petroleum Corporation for a non-standard gas proration unit, Lea County, New Mexico.

Applicant, in the above-styled cause, seeks approval of a 120-acre non-standard gas proration unit comprising the S/2 NE/4 and NW/4 SE/4 of Section 19, Township 21 South, Range 37 East, Blinebry Gas Pool, Lea County, New Mexico, to be dedicated to its L. G. Warlick "A" Well No. 2 located in Unit J of said Section 19.

CASE 2841:

Application of Whell Cil Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks permission to frill its Middleton Tederal Well No. 8-1 at an unorthodox location 660 feet from the North and West lines of Section 31, Township 19 South, Range 32 East, Lusk-Morrow Gas Pool, Lea County, New Mexico.

CASE 2842:

Application of Compass Exploration, Inc. for an amendment of Commission Order No. R-2462, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an amendment of Order No. R-2462 concerning the Largo Gallup Gas Pool to provide 320-acre gas well spacing and an increase in the maximum allowable for each spacing unit from 500 to 1,000 LCV per day.

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-3-Docket No. 18-63

CASE 2843:

Application of Gulf Oil Corporation for a special gas well test, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to produce and flare approximately 3000 MCF of gas per day for a period of not less than 6 nor more than 9 days from its Hackberry Hills Unit Well No. 1, located in Unit 0 of Section 1, Township 22 South, Range 25 East, Eddy County, New Mexico, to determine if the gas reserves in place justify the expense of a pipeline to the nearest market outlet.

CASE 2844:

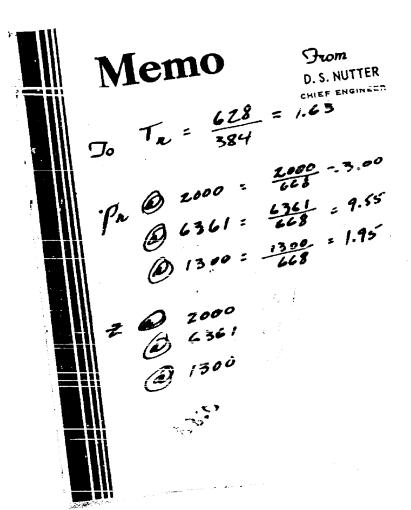
Application of Sinclair Oil & Gas Company for the creation of the Teas Pennsylvanian Gas Pool and for special temporary pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian Gas Pool for its Mahaffey-Federal (ARC) Well No. 1, located in Unit C of Section 14, Township 20 South, Range 33 East, Lea County, New Mexico, and for the establishment of temporary pool rules therefor, including a provision for 640 acre spacing units.

CASE 2845:

Application of Sinclair Oil & Gas Company for an exception to Order No. R-1670, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order permitting its Barber Gas Unit Well No. 1, located in Unit E of Section 8, Township 20 South, Range 37 East, Eumont Gas Pool, Lea County, New Mexico, to produce 600 MCF of gas per month in exception to the shut-in provisions of Rule 15(A) of Order No. R-1670, said gas to be utilized in the oil well gas-lift system on applicant's B. J. Barber Lease.

CASE 2846:

Application of Ralph Lowe to create a new pool for Upper Pennsylvanian gas production, and for special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for Upper Pennsylvanian Gas production in Section 21, Township 21 South, Range 24 East, and the establishment of temporary pool rules therefor, including a provision for 640-acre spacing and a provision restricting well locations.



BOVERNOR

JACK M. CAMPBELL

DHAIRMAN

State of New Mexico

Gil Conserbation Commission

LAND COMMISSIONER

E. B. JOHNNY WALKER

MEMBER



BANTA FE

December 27, 1963

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

Mr. Booker Kelly Gilbert, White & Gilbert Attorneys at Law Post Office Box 787 Santa Fe, New Mexico Re: Case No. 2844

Order No. R-2627

Applicant:

Sinclair Oil & Gas Company

Dear Sire

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

A. L. PORTER, Jr.

Secretary-Director

Carbon copy of order also sent to:

Bobbs OCC ____X

--to-i= OCC____
Astec OCC ____

- CASE 3413: Application of Amerada Petroleum Corporation for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Permo-Pennsylvanian zone through three injection wells located in Section 3, Township 15 South, Range 33 East, Saunders Permo-Pennsylvanian Pool, Lea County, New Mexico.
- CASE 3414: Application of Phillips Petroleum Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the lower San Andres formation, below the oil-water contact, in the following wells, Vacuum Field, Lea County, New Mexico:

TOWNSHIP 17 SOUTH, RANGE 34 FAST Fhillips Hale No. 11, Unit K Section 35

TOWNSHIP 17 SOUTH, RANGE 35 EAST
Phillips Santa Fe No. 97, Unit N Section 33
Phillips Santa Fe No. 86, Unit C Section 26
Phillips Santa Fe No. 58, Unit G Section 35

Applicant further seeks establishment of an administrative procedure whereby additional wells could be placed on salt water disposal below the oil-water contact in the San Andres formation of the Vacuum Field.

- CASE 3415: Application of Sun Oil Company for a non-standard gas proration unit, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 790-acre non-standard gas proration unit comprising all of Section 5 and 150 acres in the eastern portion of Section 6, Township 22 South, Range 23 East, Indian Basin-Upper Pennsylvanian Gas Pool, Eddy County, New Mexico. Said unit would be dedicated to applicant's Bogle Flats Unit Well No. 8 located in Unit G of said Section 5. Although applicant has drilled a non-commercial well in the NE/4 of said Section 6, it contends that there are approximately 150 acres in said Section 6 which are underlain by the Indian Easin-Upper Pennsylvanian Gas Pool.
- CASE 3416: Application of Signal Oil & Gas Company for a dual completion and salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completior (conventional) of its State "AP" Well No. 1 located in Unit I of Section 17, Township 10 South, Range 34 East, Simanola-Pennsylvanian Pool, Lea County, New Mexico, in such a manner as to produce oil from the Pennsylvanian formation through perforations from 9962 feet to 9966 feet and to dispose of produced salt water into the San Andres and Glorieta formations through the annulus between the 8 5/8 inch and the 5 1/2 inch casing in the interval from 4100 feet to 9260 feet.

CASE 2844 (Reopened):

In the matter of Case No. 2844 being reopened pursuant to the provisions of Order No. R-2627, which order established temporary 320-acre gas proration units for the Teas-Pennsylvanian Gas Pool, Lea County, New Mexico, for a period of one year from the date of first pipeline connection. The Commission will consider indefinite extension of Order R-2627 in the absence of evidence to the contrary.

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 8, 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 3410: 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 Morrow production for its Bridges-State Well No. 1 in Unit A of Section 11, 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 and a limiting gas-oil ratio of 12,000 to one. In the alternative, applicant requests that the subject well be classified as a gas well and a new Morrow gas pool be created.
- CASE 3411: Application of SEC Operating for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project by the injection of water into the Yates formation through one well in Unit A of Section 14, Township 20 South, Range 33 East, Teas Pool, Lea County, New Mexico. Applicant further seeks an administrative procedure whereby said project could be expanded to include additional lands and injection wells in Sections 11, 13, 14 and 15, Township 20 South, Range 33 East, under cooperative offset operating agreements.
- CASE 3412: Application of SEC Operating for an exception to Commission Order No. R-111-A, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the potash-oil area casing and cementing rules as set forth in Commission Order No. R-111-A. Applicant proposes to drill and complete a well in Unit D of Section 14, Township 20 South, Range 33 East, Teas Pool, Lea County, New Mexico, with surface casing set at approximately 950 feet, cement circulated, and production casing set at approximately 3400 feet and cemented to approximately 2500 feet above the casing point. The well would be plugged and abandoned in accordance with the provisions of Order No. R-111-A.

CASE 3261 (Reopened):

In the matter of Case No. 3261 being reopened at the request of Amerada Petroleum Corporation to consider the amendemnt of the special rules for the Jenkins-Cisco Pool, Lea County, New Mexico, to provide for 160-acre oil proration units. Applicant also seeks the extension of said pool to include certain lands in Township 9 South, Ranges 34 and 35 East. The present temporary special rules promulgated by Order No. R-2931 in Case 3261 provide for 80-acre proration units, and are subject to reconsideration in July, 1966.

BEFORE THE OIL COMSERVATION 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. 2844 Order No. R-2627 NOMENCLATURE

APPLICATION OF SINCLAIR CIL & GAS COMPANY FOR THE CREATION OF THE TEAS-PENNSYLVANIAN GAS POOL AND FOR SPECIAL TEMPORARY 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 June 26, 1963, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

MOW, on this 27th day of December, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Mutter, and being fully advised in the premises,

PINDS:

- (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, Simclair Oil & Gas Company, seeks the creation of a new gas pool for Pennsylvanian production and the promulgation of temporary special rules and regulations governing said pool, including a provision for 640-zero specing units.
- (3) That a new gas pool for Pennsylvanian production should be created and designated the Teas-Pennsylvanian Gas Pool; that said pool was discovered by the Sinclair Oil & Gas Company Mahaffey-Federal (ARC) Well No. 1, located in Unit C of Section 14, Township 20 South, Range 33 East, NMPM, Lea County, New Mexico.
- (4) That the evidence establishes that the permeability of the Pennsylvanian formation in said proposed Teas-Pennsylvanian

-2-CASE No. 2844 Order No. R-2627

Gas Pool is insufficient to substantiate efficient and economic drainage of 640 acres by one well.

- (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 320-acre spacing units should be promulgated for the Teas-Pennsylvanian Gas 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 special rules and regulations should be established for a temporary period to expire one year from the date that a pipeline connection is first obtained for a well in the pool; that during this temporary period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.
- (6) That this case should be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Teas-Pennsylvanian Gas Pool, at which time the operators in the subject pool should appear and show cause why the Teas-Pennsylvanian Gas Pool should not be developed on 160-acre spacing units.
- (9) That the first operator to obtain a pipeline connection for a well in the Teas-Pennsylvanian das Pool should notify the Commission in writing of such fact, and that the Commission should thereupon issue a supplemental order designating an exact date for reopening this case.

IT IS THURDPORT CORPORD.

(1) That a new pool in Lea County, New Mexico, classified as a gas pool for Pennsylvanian production is hereby created and designated the Teas-Pennsylvanian Gas Pool, consisting of the following-described area:

TOWKSHIP 20 SOUTH, RANGE 33 EAST, NMPM Section 11: S/2 Section 14: N/2

(2) That the application of Sinciair ULL & Gas Company for 640-acre spacing units in said Teas-Pennsylvanian Gas Pool be and the same is hereby denied.

-3-CASE No. 2844 Order No. R-2627

(3) That Special Rules and Regulations for the Teas-Pennsylvanian Gas Pool are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR THE TEAS-PENNSYLVANIAN GAS POOL

- RULE 1. Each well completed or recompleted in the Teas-Pennsylvanian Gas Pool or in the Pennsylvanian formation within one mile of the Teas-Pennsylvanian Gas Pool, 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 completed or recompleted in the Teas-Pennsylvanian Gas Pool shall be located on a standard unit consisting of approximately 320 acres which shall comprise any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Lands Survey. For purposes of these rules a unit consisting of between 316 and 324 contiguous surface acres shall be considered a standard unit.
- RULE 3. The Secretary-Director 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 and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey, or the following facts exist and the following provisions are complied with:
 - (a) The non-standard unit consists of quarterquarter sections or lots that are contiguous by a common bordering side.
 - (b) The non-standard unit lies wholly within a single governmental section and contains less acreage than a standard unit.
 - (c) The applicant presents written consent in the form of waivers from all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
 - (d) In lice of Faragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent

CASE No. 2844 Order No. R-2627

> to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

- RULE 4. Each well completed or recompleted in the Teas-Pennsylvanian Gas Pool shall be located no nearer than 990 feet to the outer boundary of a quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.
- RULE 5. The Secretary-Director may grant an exception to the 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. 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 furnished. The Secretary-Director may approve the application upon receipt of written waivers from all offset operators or if no effect operator has entered an objection to the unorthodox location within 20 days after the Secretary-Director has received the application.

IT IS FURTHER ORDERED:

- (1) That any well presently drilling to or completed in the Pennsylvanian formation within the Teas-Pennsylvanian Gas Pool or within one mile of the Teas-Pennsylvanian Gas Pool 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 of any such well shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before January 1, 1964.
- (2) That any operator desiring to dedicate 320 acres to a well presently drilling to or completed in the Teas-Pennsylvanian Gas Fool shall file a new Form C-128 with the Commission on or before January 1, 1964.
- (3) That this case shall be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Teas-Pennsylvanian Gas Pool, at which time the operators in the subject pool may appear and show cause why the Teas-Pennsylvanian Gas Pool should not be developed on 160-acre spacing units.
- (4) That the first operator to obtain a pipeline connection for a well in the Teas-Pennsylvanian Gas Pool shall notify

-5-CASE No. 2844 Order No. R-2627

the Commission in writing of such fact and that the Commission will thereupon issue a supplemental order designating an exact date for respening this case.

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

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

STATE OF NEW MEXICO (OIL COMSERVATION COMMISSION

JACK H. CAMPBELL, Chairman

B. S. WALKER, Member

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

SEAL

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

CASE No. 2844 Order No. R-2627 NOMENCIATURE

APPLICATION OF SINCLAIR OIL & GAS COMPANY FOR THE CREATION OF THE TEAS-PENNSYLVANIAN GAS POOL AND FOR SPECIAL TEMPORARY 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 June 26, 1963, at Santa Fe, New Mexico, before Daniel 8. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations,

NOW, on this 27th day of December, 1963, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, 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, Sinclair Oil & Gas Company, seeks the creation of a new gas pool for Pennsylvanian production and the promulgation of temporary special released regulations governing said pool, including a provision for 640-acre spacing units.
- (3) That a new gas pool for Pennsylvanian production should be created and designated the Teas-Pennsylvanian Gas Pool; that said pool was discovered by the Sinclair Oil & Gas Company Mahaffey-Federal (ARC) Well No. 1, located in Unit C of Section 14, Township 20 South, Range 33 East, NMPM, Lea County, New Mexico.
- (4) That the evidence establishes that the parmontility of the Pennsylvanian formation in said proposed Teas-Pennsylvanian

Gas Pool is insufficient to substantiate efficient and economic drainage of 640 acres by one well.

- (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 320-acre spacing units should be promulgated for the Teas-Pennsylvanian Gas 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 special rules and regulations should be established for a temporary period to expire one year from the date that a pipeline connection is first obtained for a well in the pool; that during this temporary period all operators in the subject pool should gather all available information relative to drainage and recoverable reserves.
- (8) That this case should be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Teas-Pennsylvanian Gas Pool, at which time the operators in the subject pool should appear and show cause why the Teas-Pennsylvanian Gas Pool should not be developed on 160-acre spacing units.
- (9) That the first operator to obtain a pipeline connection for a well in the Teas-Pennsylvanian Gas Pool should notify the Commission in writing of such fact, and that the Commission should thereupon issue a supplemental order designating an exact date for reopening this case.

IT IS THEREFORE ORDERED:

(1) That a new pool in Lea County, New Mexico, classified as a gas pool for Pennsylvanian production is hereby created and designated the Teas-Pennsylvanian Gas Pool, consisting of the following-described area:

TOWNSHIP 20 SOUTH, RANGE 33 EAST, NMPM Section 11: S/2 Section 14: N/2

(2) That the application of Sinclair Oil & Gas Company for 640-acre spacing units in said Teas-Pennsylvanian Gas Pool be and the same is hereby denied.

-3-CASE No. 2844 Order No. R-2627

(3) That Special Rules and Regulations for the Teas-Pennsylvanian Gas Pool are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR THE TEAS-PENNSYLVANIAN GAS POOL

- RULE 1. Each well completed or recompleted in the Teas-Pennsylvanian Gas Pool or in the Pennsylvanian formation within one mile of the Teas-Pennsylvanian Gas Pool, 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 completed or recompleted in the Teas-Pennsylvanian Gas Pool shall be located on a standard unit consisting of approximately 320 acres which shall comprise any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Lands Survey. For purposes of these rules a unit consisting of between 316 and 324 contiguous surface acres shall be considered a standard unit.
- RULE 3. The Secretary-Director 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 and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey, or the following facts exist and the following provisions are complied with:
 - (a) The non-standard unit consists of quarterquarter sections or lots that are contiguous by a common bordering side.
 - (b) The non-standard unit lies wholly within a single yovernmental section and contains less acreage than a standard unit.
 - (c) The applicant presents written consent in the form of waivers fr ... all offset operators and from all operators owning interests in the section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.
 - (d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered or certified mail of his intent

-4-CASE No. 2844 Order No. R-2627

to form such non-standard unit. The Secretary-Director may approve the application if no such operator has entered an objection to the formation of such non-standard unit within 30 days after the Secretary-Director has received the application.

- RULE 4. Each well completed or recompleted in the Teas-Pennsylvanian Gas Pool shall be located no nearer than 990 feet to the outer boundary of a quarter section and no nearer than 330 feet to any governmental quarter-quarter section line.
- RULE 5. The Secretary-Director may grant an exception to the 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. 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 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.

IT IS FURTHER ORDERED:

- (1) That any well presently drilling to or completed in the Pennsylvanian formation within the Teas-Pennsylvanian Gas Pool or within one mile of the Teas-Pennsylvanian Gas Pool 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 of any such well shall notify the Hobbs District Office of the Commission in writing of the name and location of the well on or before January 1, 1964.
- (2) That any operator desiring to dedicate 320 acres to a well presently drilling to or completed in the Teas-Pennsylvanian Gas Pool shall file a new Form C-126 with the Commission on or before January 1, 1964.
- (3) That this case shall be reopened at an examiner hearing one year from the date that a pipeline connection is first obtained for a well in the Teas-Pennsylvanian Gas Pool, at which time the operators in the subject pool may appear and show cause why the Teas-Pennsylvanian Gas Pool should not be developed on 160-acre spacing units.
- (4) That the rirst operator to obtain a pipeline connection for a well in the Teas-Pennsylvanian Gas Pool shall notify

-5-CASE No. 2844 Order No. R-2627

the Commission in writing of such fact and that the Commission will thereupon issue a supplemental order designating an exact date for reopening this case.

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

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

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

SEAL

2844 Weard. 6-8-66 Rec. 6-9-66 in the Dear Penn Has pool should be. cancelled and Rule 164 It (as be referred to as cause for the action. Thur a. D.

OIL CONSERVATION COMMISSION P. O. BOX 871

SANTA FE, NEW MEXICO

May 12, 1966

Sinclair Oil & Gas Company Post Office Box 1470 Midland, Texas 79701

Attention: Mr. R. E. Powers

Gentlemen:

Reference is made to your letter of May 10, 1966, concerning Order No. R-2627 which authorized temporary 320-acre gas spacing units for the Teas-Pennsylvanian Gas Pool, Lea County, New Mexico.

We are docketing a case for the June 8, 1966 examiner hearing to consider the indefinite extension of the pool rules to conform with the statewide rules as amended June 1, 1964. It should not be necessary for you to appear at said hearing inasmuch as permanent extension of temporary rules in similar cases has always been automatic in the absence of evidence to the contrary.

Wery truly yours,

DANIEL S. NUTTER Chief Engineer

DSM/ir

DOCKET MAILED



SINCLAIR OIL & GAS COMPANY

P. O. Box 1470

MIDLAND, TEXAS 79701

May 10, 1966

DOO BOILD WAR

WEST TEXAS REGION

New Mexico Oil Conservation Commission Post Office Box 2088 Santa Fe, New Mexico

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

Teas-Pennsylvanian Gas Pool Lea County, New Mexico RE:

Commission Order No. R-2627 dated December 27, 1963, provided for special rules for the Teas-Pennsylvanian Gas Pool which included 320 acre gas prorules for the reas-remisylvanian gas root which included 520 acre gas pro-ration units. This order also provided for an examiner review after one year Gentlemen: ration units. This order also provided for an examiner review after one year of production in order to permit Operators to show cause why the pool should of production in order to permit Operators to show cause why the pool should of production in order to permit Operators to show cause why the pool should be developed to a state of the pool of the poo of production in order to permit operators to show cause why one poor should not be developed on statewide 160 acre gas proration units. not be developed on statewide 100 acre gas proration unios. right gas from this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. & Gas Company's this field was sold on January 28, 1965, from Sinclair Oil. Mahaffey-Federal ARC Well No. 1 which is currently the only well completed

Subsequently, by Commission Order No. R-2707 dated May 25, 1964, units Statewide Rule 104 was amended to provide for 320 acre gas proration units for wells in Lee County completed in the Denneylypnian formation of decree in this field. for wells in Lea County completed in the Pennsylvanian formation or deeper

Accordingly it is respectfully requested that another examiner review of said Teas-Pennsylvanian Gas Pool rules not be held and that said rules be after June 1, 1964. or said Teas-remsyrvanian Gas roof rules not be need and that said rules permanently adopted as they agree with the proration unit requirements of granted and defined by the fields are total and defined by the permanently adopted as they agree with the profation unit requirements of statewide Rule 104 with regard to fields created and defined by the Commission after June 1, 1964.

R. E. Powers

Engineering Supervisor

RMA/ah

GOVERNOR JACK M. CAMPBELL CHAIRMAN

State of New Mexico

Bil Conservation Commission

LAND COMMISSIONER GUYTON B. HAYS MEMBER



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

P.O.BOX 2088 SANTA FE

June 15, 1966

Mr. R. E. Powers Sinclair Oil & Gas Company Post Office Box 1470 Midland, Texas 79701 Re: Case No. 2844
Order No. R-2627-A
Applicant:

SINCLAIR OIL & GAS COMPANY

Dear Sir:

Other_

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

Very truly yours,

L. L. Porter, Jr.

Secretary-Director

ALP/ir

Carbon copy of order also sent to:

Hobbs OCC x

Artesia OCC Aztec OCC ______

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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

> GASE No. 2844 Order No. R-2627-A

APPLICATION OF SINCLAIR OIL & GAS COMPANY FOR THE CREATION OF THE TEAS-PENHEYLVANIAN GAS POOL AND FOR SPECIAL TEMPORARY POOL RULES, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on June 8, 1966, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 15th day of June, 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,

PIMDS:

- (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-2627, dated December 27, 1963, Special Rules and Regulations were promulgated for the Teas-Pennsylvanian Gas Pool, Lea County, New Mexico, for a period of one year from the date of first pipeline connection.
- (3) That pursuant to the provisions of Order No. R-2627, this case was reopened to consider indefinite extension of Order No. R-2627 in the absence of evidence to the contrary.
- (4) That since the issuance of Order No. R-2627, the Commission has amended Rule 104 of the Statewide Rules and Regulations to permit the dedication of 320 acres to a gas well in Lea, Chaves, Eddy, and Roosevelt Counties, New Mexico, projected to

-2-CASE No. 2844 Order No. R-2627-A

or completed in the Pennsylvanian formation or a deeper formation.

(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, the Special Rules and Regulations promulgated by Order No. R-2627 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 Teas-Pennsylvanian Gas Pool, promulgated by Order No. R-2627, 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 COMSERVATION COMMISSION

ACK M. CAMPBELL, Chairman

DP.

L. PORTER, Jr., Member & Secretary

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SENCEATR OIL & CAS COMPANY TEAB (PENNSYLVANIAN, CAS) POOL LEA COUNTY, NEW MEXICO

Gas and Condensate Reserve and Economic Data

I.	Basi	c reservoir data;							
	1.	BHP = 6,361 psig (Bomb pressu		- X - X - X - X - X - X - X - X - X - X					
٠.	2.	Abandonment pressure = 2,000 [esig (Ascread)						
	3.	BHT = 168°F = 625°R (Measured		ment) 8/27					
	4.	Average Porosity = 13% (Sonic							
		Average water saturation = 27		lion)					
		Net pay thickness = 36 feet (
	7.	Oas gravity = 0.68 (Measured during Multi-Point Back Pressure Test)							
	2.	Condensate Gravity = 530AFI							
	9.	Concensate Gravity = 530AFT Gas-Liquid Ratio = 30,167 cu.	it./Bol. (Massured dur	ing Multi-Point Test)					
	10.	Standard conditions = 15.025 Gas compressibility, initial	psis and 60°F						
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	12.		ommant = 0.00 (carcorate	ea)					
II.		erve Data:		****					
	1.	Reservoir volume of 1 SCF = 0	.00313 cu. ft. (Initial	conditions)					
		Reservoir volume of 1 SCF = 0		donment)					
	3.	Reservoir volume = 4,150 cu.	ft./A-ft.						
		Initial Oas in Place - 1,325							
		Gas in place at abandonment =							
		Gas shrinkage factor = 0.976							
		Recoverable Gas o (1,325-551)							
		Gas in place containing conde							
		Condensate in Place = 1,293,0							
		Recoverable Condensate = (43)							
	11.	Reserve for 160 Acre Spacing:							
		a. Gas = (160) (36) (755) =	4.318.800 BSCF						
		b_e Condensate = (160) (36) (
	12.	Reserve for 640 Acre Spacing:							
		a_0 $0as = (640) (36) (755) =$							
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III.		nomics of 160 Acre and 640 Acr							
		Gross sale price of condensat							
	2.	Gross sale price of gas = \$0.	16 per MCF						
		When	160 A	640 A					
		Gross of gas and condensate	\$836,000	\$3,344,000					
	4.	Charges against well:							
		Development Cost	\$388_000	\$388 <u>.000</u> ~					
		Operating Cost	\$34,800	\$139,200					
		Direct Taxes	\$94,200	\$376,000					
			\$104,500	\$418,000 * 4					
		Total Costs	\$571,500	\$1,322,000					
		Undeferred Net Profit	\$281,500	\$2,022,000					
		Life of Well, Years	29	96					
		Deferred Net Profit (8%)	(-\$50,000)	\$90 <u>,</u> 000					

Dishibit No. 4

NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico June 8, 1966

Examiner HEARING

IN THE MATTER OF:

case No. 2844 being reopened pursuant to the provisions of Order No. R-2627, which order established temporary 320-acre gas proration units for the Teas-Pennsylvanian Gas Pool, Lea County, New Mexico, for a period of one year from the date of the first pipeline connection.

Case No. 2844

BEFORE:

Elvis A. Utz, Examiner

TRANSCRIPT OF HEARING



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O SIAMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUIRNUE, NEW MEXICO 3 FIST NATIONAL BANK FAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO MR. UTZ: The hearing will come to order. The next case is No. 2844.

MR. HATCH: In the matter of Case No. 2844 being reopened pursuant to the provisions of Order No. R-2627, which order established temporary 320-acre gas proration units for the Teas-Pennsylvanian Gas Pool, Lea County, New Mexico, for a period of one year from the date of first pipeline connection.

MR. UTZ: Are there any appearances for Case No. 2844? There being no appearances this case will be taken under advisement and, of course, the decision of the advisement is already made, since this case is temporary 320-acre spacing for gas pool below Pennsylvanian and since the initial order the State-wide Order allows 320-acre spacing, so the spacing in the Teas-Pennsylvanian Gas Pool will be automatic.



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STATE OF NEW MEXICO)
COUNTY OF BERNALILLO

I, KAY EMBREE, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission Examiner at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand this 22nd day of ______, 1966.

Court Reporter



i do hereby certify that the foregoing is a constate record of the proceedings in the Exercise hascing of Case No. 2 K. M., heart by he on the Conservation Commission

BEFORE THE OIL CONSERVATION COLMISSION Santa Fe, New Mexico June 26, 1963

EXAMINER HEARING

IN THE MATTER OF:

Application of Sinclair Oil & Gas Company for the creation of the Teas Pennsylvanian Gas Pool and for special temporary rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Pennsylvanian Gas Pool for its Mahaffey-Federal (ARC) Well No. 1, located in Unit C of Section 14, Township 20 South, Range 33 East, Lea County, New Mexico. and for the establishment of temporary pool rules therefor, including a provision for 640-acre spacing units.

Case 2844

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: We will call Case 2844.

MR. DURRETT: Application of Sinclair Oil & Gas Company for the creation of the Teas Pennsylvanian Gas Pool and for special temporary pool rules, Lea County, New Mexico.

MR. KELLY: Booker Kelly, of Gilbert, White and Gilbert, representing Sinclair Oil & Gas Company, and I have one witness and ask that he be sworn. (Witness sworm.)



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(Whereupon, Applicant's Exhibit No. 1 was marked for identification.)

DOUGLAS W. CUNNINGHAM

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

DIRECT EXAMINATION

BY MR. KELLY:

- Would you state your name, please? Q
- My name is Douglas W. Cunningham.
- By whom are you employed and in what capacity? Q
- Sinclair Oil and Gas, as Petroleum Engineer. A
- Q Have you previously testified before this Commission as an expert witness?
 - Yes, I have. Â

MR. KELLY: Are the witness's qualifications acceptable, Mr. Examiner?

MR. NUTTER: Yes, sir.

- a Would you please state what Sinclair seeks by this application?
- A Sinclair is seeking the creation of a new gas pool for Pennsylvanian production, to be designated the Teas Pennsylvanian Gas Pool. Sinclair also seeks the promulgation of temporary special rules and regulations for governing the production from



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the said pool which would include provisions for 640-acre proration units to consist of one governmental section.

We're also asking that the temporary rules should, in order to insure orderly development and protect correlative rights, the rules should provide that each new well completed in the subject pool shall be located no nearer than 1650 feet from the section line and no nearer than 330 feet to any governmental quarter, quarter section line.

Now, the existing well, our Mahaffey-Federal (ARC) No. 1, would be in violation of those spacing rules. We are also asking that the temporary rules should be established for a one-year period beginning with the date that a pipeline connection for sale of the gas well gas is obtained. That during this temporary period all operators in the subject pool should gather all the available information relative to drainage and recoverable reserves.

Q I take it Sinclair wishes to except their present well from the proposed rules and this would be applied to all future drilling in the area?

A Yes. The spacing rules for the well would apply to all new wells which would be in this pool. We drilled that well on a statewide oil well spacing and encountered this gas.

Q Could you tell the Commission the present status of the



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to Exhibit No. 1? discovery well and refer

Exhibit 1 shows the area that the Mahaffey-Federal Well No. 1 is located in, it's shown approximately in the middle of the plat and encircled with a red circle. Presently this well is a dual oil well completion in the Bone Springs formation and a shut-in gas well in the Pennsylvanian gas formation. We have in the past run a multi-point back pressure test which showed that the well has a calculated absolute open flow of 3,628 MCF per day, so we do not consider that the well is a very good gas well for a well this deep.

With respect to Exhibit 1, the pink acreage there shown on the plat is a working interest unit that has been formed by Sinclair and other operators in there. It had no effect whatsoever on the royalty interest, but the working interest owners shared in the development of that first well in there. As far as the working interest owners are concerned, that well inasfar as it is allowed to do so dedicates all the acreage at the present time in there shown in pink.

(Whereupon, Applicant's Exhibit No. 2 was marked for identification.)

You have a structure map of the area, I refer you to Q Exhibit 2%

Yes, Exhibit 2 is a structure map drawm on top of the A



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Morrow formation, which is Pennsylvanian in age, it's based on subsurface control and various places on the map there where there is shown a blue figure such as on the well which is colored red, which is Sinclair's Mahaffey-Federal No. 1 in Section 14 in the approximate middle of the map, the minus 2612 is the control point on the top of the Morrow.

And everywhere on the map, and there are eight others where a blue figure appears, that is a control point on the well that did penetrate the Morrow sediments of the Pennsylvanian. It shows that there is a small local high in the vicinity of Sinclair's Mahaffey-Federal No. 1. It shows down in the left-hand lower portion of the exhibit that there are three Morrow gas wells, which I think are classified as being South Salt Lake, Atoka, Morrow gas wells.

I have contacted Texaco about these wells and I was told that they had no field rules at this time on that particular field. It shows four dry holes. Texaco No. 1 Muse located in Section 7 of 20 South and 33 East, at minus 9840; up at the top of the map in Section 22, very probably 19 South, 33 East, a dry hole that penetrated the Morrow. Over in Section 4 of 20 South and Range 34 East, a Pure 1-Federal "C" at minus 9353, which penetrated the Morrow, and almost directly south of Sinclair's penetrated the Morrow, and almost directly south of Sinclair's well a Phillips 1-Etz Federal at minus 10,033 feet, which was a



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dry hole that penetrated the Morrow, so we feel like that it's possible that the maximum outer limits of this Horrow Gas Pool could be determined by drawing a straight line from each one of those four dry holes. That would be what we would consider the maximum productive Morrow in this area?

Also in line with what we have just shown on Exhibit 2 there we have Exhibit No. 3 which is a net sand thickness map. It shows the same area as was shown on the structure map. Morrow picks here were determined from looking at the well logs of all these other wells and selecting the porous zones, and it was contoured here. It shows the average in the area where the Sinclair wells are located to be about 30 or 40 feet. We considered 36 feet of net pay in our own well there.

(Whereupon, Applicant's Exhibit No. 3 was marked for identification.)

So Exhibits 2 and 3 purport to show, based on Sinclair's available data, the possible outer limits or the extent of this proposed pool?

Yes. A

(Whereupon, Applicant's Exhibit No. 4 was marked for identification.)

Now, referring to Exhibit 4, would you explain this to Q. the Commission?



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Exhibit No. 4 is a tabulation of the gas and conden-A sate reserve and economic data for the Teas Pennsylvanian Pool as we presently presume that it might be present. Starting with Roman numeral I we have basic reservoir data that we have gained.

Item 1, the bottom hole pressure is 6,361 psig, which is a bomb pressure. It was taken after several days shut-in. Item 2 is the abandonment pressure that we used in making the reserve calculations, which is 2,000 psig. This was an assumed abandonment pressure. The bottom hole temperature is 168 degrees Fahrenheit or 628 degrees Reaumur. This was measured at the time of BHP measurement.

The average porosity is approximately 13%, that's based on sonic log calculation. The average water saturation, 27%, and that's based on electric log calculations. The net pay thickness of 36 feet, which is the log interpretation; the gas gravity is 68, that's .68 measured during the multi-point back pressure test. Item 6 is the condensate gravity, which was 53 degrees API. The gas-liquid ratio is 30,167 cubic feet per barrel which was measured during the multi-point test.

We considered standard conditions of 15.025 psi and 60 degrees Fahrenheit. The gas compressibility at initial reservoir conditions calculated at 1.1, at abandonment we calculated it at .84. This gave us a reserve data, initial gas in place, 1,325



The gas in place at abandonment is 551,000 standard cubic feet per acre foot, a gas shrinkage factor of .976, Which was calculated, and then a recoverable gas of 755 MCF per acre. The condensate in place, 43 harrels per acre foot; assuming standard cubic feet per acre foot.

a recovery factor of 20% for the condensate in place, we would recover at 8.6 barrels per acre foot. This gave us a reserve for 160-acre spacing of 4,348,800 MSCF, a condensate reserve for 160 of 49,536 barrels. Then we assume that the reserve for 640acre spacing would be four times the reserve of 160-acre spacing. Then we proceed to the economics of 160-acre spacing versus

640-acre opacing. Using a gross sale price of condensate of \$2.83 per barrel. A gross sale price of gas of \$0.16 per MCF on 160-acre spacing, we have a gross and a word left out there, that's gross value of gas and condensate for 160-acres of \$836,000

Then we have charges against the well development cost of \$388,000: operating cost, \$34,800; direct taxes of \$94,200; royalty at \$104,500, or total cost applied to the well of \$571,500. This gives us an undeferred net profit of \$264,500. and based on the life of the well of 29 years, we would have a deferred net profit of \$50,000 in the red.

On 640-acre spacing, the gross value of gas and condensate Then we have the charges against the well, would be \$3,344,000.

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undeferred net profit of \$2,022,000, and based on a well life of 96 years for 640-acre spacing, we would have a deferred net profit at 8% of \$90,000, or a small net profit. Both of those net profits deferred are before income taxes. We haven't considered income taxes at all in this tabulation.

- Based on the available information that Sinclair has, could Sinclair economically develop the proposed pool on 160-acre spacing?
 - No, sir, we could not.
- Q Would Sinclair be able to drill additional wells at all on 160-acre spacing?
 - No, sir, we would not. ä
- Is it possible that Sinclair would drill additional wells if the temporary 640-acre spacing was allowed?

It is possible that we might drill another well, the economics are poor at best even for 640-acre spacing. If we felt that by drilling another well we could prove 640-acre drainage and tie up for ourselves 640-acre reserves with another well, then we might possibly in hopes of getting a better well than the present well, we might take the gamble and go ahead and drill another well. It's just a possibility and I would say no probability based on the poor economics of 640 even.

Q In your opinion as a petroleum engineer, the only way



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that the acreage at least in red is concerned would be developed would be on 640-acre spacing?

I would say so, yes.

Do you feel that based on the information that you have Q now that the drilling of this well would possibly deter others in the area which you have suggested that might be possibly the outer limits of the pool if this was a 160-acre spacing unit?

I believe if they were prudent operators they could tell from the multi-point back pressure test this is not a good well. I am sure they could come up with the same reserves that I did for 160 acres. I don't think that a prudent operator would drill a well on 160-acre spacing at all.

So 160-acre spacing would be an economic waste as far as the drilling cost and very possibly an economic waste of leaving the gas in the ground?

A Yes.

You mentioned earlier that you requested a 640-acre spacing temporary for one year from the date that your well could be connected to a pipeline. What has Sinclair done about contacting potential pipeline operators?

We have been in contact with four gas companies in the area. We have been in contact with Llano Gas Company, Phillips, Southern Union Gas Company and Warren. I believe it may be



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possible that we could get a connection within a six-month period from the present.

MR. KELLY: I have no further questions except to get the exhibits in.

Q Were Exhibits 1 through 4 prepared by you or under your direction?

A Yes.

MR. KELLY: We introduce Exhibits 1 through 4.

MR. NUTTER: Sinclair's Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 4 were offered and admitted in evidence.)

MR. NUTTER: Does anyone have any questions of Mr. Cunningham? Mr. Durrett.

CROSS EXAMINATION

BY MR. DURRETT:

Q Would you indicate how you come up with the mathematical computation of minus \$50,000? Do you estimate the life of the well on the years, now how did you arrive at that estimation?

A Well, our reservoir engineers have made the determination. They thought that the well would probably produce a sustained rate for maybe a one or two-year period of 800,000

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cubic feet per day. Then the well would decline at a certain specified rate, which I don't recall what it was. This is an average rate of 410,000 cubic feet per day. When you predict the daily flow rate and in turn the monthly flow rate, then the cash flow is forecast and then if that occurs over a 29-year period, then with the discount factors for an 8% investment rate, you never do show a net profit equal to the \$388,000 that you spent the first year, which is non-deferrable. In essence, what it means is that money invested in this well would not re-It returns something less than 8%, turn 8%.

- Theoretically, \$50,000 less than %? Q
- Yes. A
- Then when you estimate going over to the 640-acre spacing, that is the same computation to arrive at the 96 years. Q They used the same mathematical computation as far as --
- More than likely the decline rate was not quite the Λ same because four times 29 is a little over 96 years. So evidently he used a faster producing rate for 640-acre spacing for some reason.
 - That's just his estimate, though? Q
 - Yes. Right now the well is shut-in and we don't know A what it will produce a day.
 - I noticed on direct examination that you said that



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not considering income taxes you would have a minus \$50,000?

- A Yes, sir.
- Q Well, if you considered income taxes there wouldn't be any income taxes on minus \$50,000?
 - A That's true.
 - Q You might have a tax advantage?
 - A We would have a tax advantage there.

 MR. DURRETT: Thank you.

BY MR. NUTTER:

Q I take it, then, that you didn't prepare this Exhibit 4, it was prepared by your reservoir engineers?

A I did do the reserve computations. They did do the cash flow.

Q Back up here on the reserve computations, then, why did you select an abandonment pressure of 2,000 psi?

A Mr. Nutter, that is just my guess. I know that some gas companies use, I think, a hundred for each hundred pounds for each thousand foot of depth, which would make it around maybe 1300 pounds instead of 2,000 pounds, but I just assumed it.

Q That abandonment pressure being as high as 2,000 pounds has a direct and important effect upon the amount of gas that's going to be in place at the time of abandonment?

A Yes, sir.

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Which is more than a third of the total gas that you compute is in the reservoir at the present time?

If you use a lower abandonment pressure you would get more gas recovery, that's right.

As a matter of fact, you are assuming here that you are Q only going to produce slightly more than 50% of the gas?

Yes, sir. I think it figures out about 58%. A

And 20% of the condensate? Q

Yes, sir. That again is kind of a guess. A

Also when you get down here into the computation of Q the economics you are assuming here on a 160-acre well that that's all of the gas that that well would produce?

Yes, sir.

And yet you said that Sinclair probably wouldn't drill Q this on 160 acres and you doubted if the other operators around there would, where would the remaining gas on the other 440 acres go then?

Regardless of what spacing rules are subsequently A determined for the field, I mean the well will go ahead and produce whatever it will bring, which at this time we don't know what it is. If it would drain even 640 acres, I don't think it would be a very good economic prospect for drilling other wells in there.



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Q But for making your 160-acre computation, you have assumed that there would be three additional wells there, I presume?

A Well, I can see that somebody might come in and force us to drill an offset well or lose the acreage, one or the other. More than likely if someone came in and offset our acreage and we were forced to drill 160 acre, we would let the acreage go rather than drill another well. If the four wells drained the 640, then this would be the reserves that they would recover.

Q Requesting 640 spacing wouldn't be an acreage holding device anyhou, would it?

A No, sir. We just want to get them for a year. If we can't prove after a year that it can drain 640, then we will revert to 160.

Q Do you feel if you could establish that it was capable of draining 640 acres and that an order was entered by the Commission that wasn't a temporary order, at the end of a year that you would drill more wells then?

A Fased upon our present figures, I doubt that we would, really. It's possible, but I just don't know.

Q You stated that the reservoir engineers had used a sustained rate of production for the first year or so of 800 some MCF?

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Yes, sir, 800. A

Is that limited by the well itself or limited by a Q contract that you expect you might negotiate?

I really don't know how he determined the 800 per day. I think that he thought it would be about all the well would produce at a sustained rate. Now, the calculated absolute open flow was only 3600, and during the time that was taken they did produce it at rates in excess of 2,000 MCF per day.

What rate of fluid is that well producing when it made that 3600 a day?

- The gas-liquid ratio?
- Q Yes.
- It was 30,000 to 1, approximately.
- How many barrels did it make? Q
- That is about 33 barrels per million. I believe.
- Q This area that's shaded pink on your Exhibit No. 1. in this Mahaffey-Podoral Unit, it says "rights to 4,000 feet only." Does this mean that it's unitized to 4,000 feet?
 - What it means is it's unitized below 4,000 feet.
 - Q This is from the bottom up to 4,000 feet?
 - Yes, sir, that's right. It covers from 4,000 deeper. MR. NUTTER: Any further questions of Mr. Cunningnam? MR. DURRETT: I have one additional question.



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BY MR. DURRETT:

Mr. Cunningham, I neglected to ask you, I believe I missed this on your direct examination, what is your well location requirements that you are asking?

1650 feet from the nearest section line and no nearer than 330 feet to the quarter section line.

MR. DURRETT: Thank you.

MR. NUTTER: Any further questions? The witness may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Kelly?

MR. KELLY: Nothing further.

MR. NUTTER: Does anyone have anything they wish to offer in Case 2844? The case will be taken under advisement.



DEARNLEY-MEIER REPORTING SERVICE, Inc. SANTA FE. H. W.

STATE OF NEW MEXICO SS COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 8th day of July, 1963.

Motary Public-Court Reporter

My commission expires: June 19, 1967.

I do hereby certify that the foregoing is, a complete source of the proceedings in

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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:	CF Subj.
Jan	CASE No. 2844
	Order No. R-2627-A
APPLICATION OF SINCLAIR OIL & GAS COMP FOR THE CREATION OF THE TEAS-PENNSYLVA GAS POOL AND FOR SPECIAL TEMPORARY POO RULES, LEA COUNTY, NEW MEXICO.	NIAN MIKE
BY THE COMMISSION:	
This cause came on for hearing at at Santa Fe, New Mexico, before Examin	
NOW, on thisday ofJune quorum being present, having considere and the recommendations of the Examine in the premises,	d the testimony, the record,
FINDS:	
(1) That due public notice having law, the Commission has jurisdiction of	

- matter thereof.
- (2) That by order No. R-2627, dated December 27, 1963, Special Rules and Regulations were promulgated for the Teas-Pennsylvanian Gas Pool, Lea County, New Mexico, for a period of one year from the date of first pipeline connection.
- (3) That pursuant to the provisions of Order No. R-2627, this case was reopened to consider indefinite extension of Order No. R-2627 in the absence of evidence to the contrary.
- (4) That since the issuance of Order No. R-2627, the Commission has amended Rule 104 of the Statewide Rules and Regulations to permit the dedication of 320 acres to a gas well in Lea, Chaves, Eddy, and Roosevelt Counties, New Mexico, projected to or completed in the Pennsylvanian formation or a deeper formation.

(5) That 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 Order No. R-2627 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 Teas-Pennsylvanian Gas Pool, promulgated by Order No. R-2627, 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.