

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
SOUTHERN UNION GAS COMPANY FOR AN)
ORDER DESIGNATING CERTAIN LANDS IN)
TOWNSHIP 26 NORTH, RANGES 3 AND 4)
WEST, N.M.P.M., RIO ARRIBA COUNTY,)
NEW MEXICO, AS THE TAPICITO-PICTURED)
CLIFFS GAS POOL AND ESTABLISHING)
320-ACRE DRILLING UNITS FOR SAID)
POOL.)

CASE NO. 977

APPLICATION

Southern Union Gas Company (herein referred to as "Applicant"), a Delaware corporation with its principal place of business in the Burt Building, Dallas 1, Texas, hereby makes application to the Commission for an order designating certain lands in Rio Arriba County, New Mexico, more fully hereinafter described, as the Tapicito-Pictured Cliffs Gas Pool and establishing 320-acre drilling units for said pool. In support of such application Applicant respectfully states and shows the following:

- (1) The lands, all located in Rio Arriba County, New Mexico, herein requested by Applicant to be designated as the Tapicito-Pictured Cliffs Gas Pool are as follows:

Township 26 North, Range 3 West, N.M.P.M.

Section 19: All
Section 29: All
Section 30: All
Section 32: N/2

Township 26 North, Range 4 West, N.M.P.M.

Section 3: S/2
Section 4: S/2
Section 9: All
Section 10: All
Section 11: S/2
Section 13: All
Section 14: All
Section 15: All
Section 16: All
Section 21: E/2
Section 22: All
Section 23: All
Section 24: All
Section 25: E/2

(2) As of the date of this application, approximately 12 wells have been completed by Applicant and others in the Pictured Cliffs formation within the requested pool boundaries set forth above. By reason of the completion of said wells, and in the light of the geological and well log data available to Applicant, Applicant is of the opinion that all of the lands within the requested pool boundaries may reasonably be expected to be productive of natural gas in commercial quantities from the Pictured Cliffs formation. Such geological and well log data also indicate that the Pictured Cliffs Gas Pool underlying the lands referred to hereinabove is and should be regarded as a different pool from any of those heretofore formally designated by the Commission as such in northwestern New Mexico.

(3) In the light of the geological and well log data available to it, Applicant is of the opinion that a well drilled and properly completed in the Pictured Cliffs formation within the requested pool limits referred to above may reasonably be expected to drain in an efficient and economic manner not less than 320 acres of land, and that it is appropriate for the Commission, for the purposes of preventing waste and protecting correlative rights, to establish 320-acre drilling units for the Tapicito-Pictured Cliffs Gas Pool, each such unit to consist of either the N/2, S/2, E/2 or W/2 of a standard section according to the United States Land Surveys, and to order that no well within said pool be drilled (in the absence of special topographical conditions justifying some other location) closer than 990 feet to any boundary of the quarter section upon which it is located.

(4) At the hearing regarding this matter Applicant will be prepared to present further evidence relating to (a) the propriety of designation of the proposed area as a new and separate Pictured Cliffs Gas Pool and (b) the propriety of the well-spacing provisions proposed in paragraph (3) above.

WHEREFORE, premises considered, Applicant prays that the Commission, after such hearing and upon such notice as the Commission may direct, issue its order designating the lands described in paragraph (1) hereof as the Tapicito-Pictured Cliffs Gas Pool, and establishing drilling units and providing for the location of wells within said pool in the manner outlined in paragraph (3) hereof.

Respectfully submitted,
SOUTHERN UNION GAS COMPANY

By J. C. Reid
Vice President

THE STATE OF TEXAS)
COUNTY OF DALLAS)

J. C. Reid, being first duly sworn, hereby states that he is the Vice President of Southern Union Gas Company, the Applicant in the foregoing application, that as such officer he has executed said application on behalf of Southern Union Gas Company; that he has read said application and, to the best of his knowledge, information and belief, all statements of fact therein contained are true and correct.

J. C. Reid

SWORN TO AND SUBSCRIBED before me, the undersigned authority, this 12th day of October, 1955.

Faye Griffin
Notary Public in and for
Dallas County, Texas

My Commission Expires:
June 1, 1957

SOUTHERN UNION GAS COMPANY

BURT BUILDING
DALLAS 1, TEXAS

LEGAL DEPARTMENT

WILLIS L. LEA, JR.
GENERAL ATTORNEY

A.S. GRENIER
MILLARD F. CARR
EDWARD G. TAYLOR
JACK HERTZ

October 24, 1955

*Advertised Correctly
the amended application
on 10/28/55;
WRM
10/27/55*

Mr. William B. Macey, Secretary
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Mr. Macey:

In line with our telephone conversation this morning, I am forwarding herewith for filing with the Commission four copies of Southern Union Gas Company's amended application in Case No. 977, relative to the temporary establishment of 320 acre drilling units in the Tapicito-Pictured Cliffs Gas Pool, Rio Arriba County, New Mexico.

The enclosed amended application supersedes in its entirety the original application filed in this case on October 13, 1955.

Thank you once again for your much appreciated cooperation in this matter.

Very truly yours,

A. S. Grenier

ASG:ek
encls.

cc-Mr. John A. Anderson (w/2 encls.)
Mr. J. C. Reid
Mr. A. M. Wiederkehr
Mr. Q. B. Davis (w/encl.)
Mr. Clarence Hinkle (w/encl.)

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
SOUTHERN UNION GAS COMPANY FOR AN)
ORDER DESIGNATING CERTAIN LANDS IN)
TOWNSHIP 25 NORTH, RANGE 3 WEST, AND)
TOWNSHIP 26 NORTH, RANGES 3 AND 4 WEST)
N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO,)
AS THE TAPICITO-PICTURED CLIFFS GAS)
POOL AND TEMPORARILY ESTABLISHING)
320-ACRE DRILLING UNITS FOR SAID POOL)

CASE NO. 977

AMENDED APPLICATION

Comes now Southern Union Gas Company (herein referred to as "Applicant"), a Delaware corporation with its principal place of business in the Burt Building, Dallas 1, Texas, and in substitution for its original application in this matter, filed with the Commission on October 13, 1955, files this amended application requesting an order of the Commission designating certain lands in Rio Arriba County, New Mexico, more fully hereinafter described, as the Tapicito-Pictured Cliffs Gas Pool and temporarily establishing 320-acre drilling units for said pool; and in support thereof Applicant respectfully states and shows the following:

(1) The lands, all located in Rio Arriba County, New Mexico, herein requested by Applicant to be designated as the Tapicito-Pictured Cliffs Gas Pool are as follows:

Township 25 North, Range 3 West, N.M.P.M.

Section 4: All
Section 5: All

Township 26 North, Range 3 West, N.M.P.M.

Section 19: All
Section 29: All
Section 30: All
Section 32: All

Township 26 North, Range 4 West, N.M.P.M.

Section 3: S/2
Section 4: S/2
Section 9: All
Section 10: All
Section 11: S/2
Section 13: All
Section 14: All
Section 15: All
Section 16: All
Section 21: E/2
Section 22: All
Section 23: All
Section 24: All
Section 25: E/2

(2) As of the date of this application, approximately 14 wells have been completed by Applicant and others in the Pictured Cliffs formation within the requested pool boundaries set forth above. By reason of the completion of said wells, and in the light of the geological and well log data currently available to Applicant, Applicant is of the opinion that all of the lands within the requested pool boundaries may reasonably be expected to be productive of natural gas in commercial quantities from the Pictured Cliffs formation. Such geological and well log data also indicate that the Pictured Cliffs Gas Pool underlying the lands referred to hereinabove is and should be regarded as a different pool from any of those heretofore formally designated by the Commission as such in northwestern New Mexico.

(3) In the light of the geological and well log data currently available to it, Applicant is of the opinion that a well drilled and properly completed in the Pictured Cliffs formation within the requested pool limits referred to above may reasonably be expected to drain in an efficient and economic manner not less than 320 acres of land, and that pending further development of and production from such area it is appropriate for the Commission, for the purposes of preventing waste and protecting correlative rights, temporarily to establish 320-acre drilling units for the Tapicito-Pictured Cliffs Gas Pool and adjacent areas within two miles of same, each such unit to consist of either the N/2, S/2, E/2 or W/2 of a standard section according to the United States Land Surveys, and to order that no well within said pool and adjacent areas be drilled (in the absence of special topographical conditions justifying some other location) closer than 990 feet to any boundary of the quarter section upon which it is located.

(4) At the hearing regarding this matter Applicant will be prepared to present further evidence relating to (a) the propriety of designation of the proposed area as a new and separate Pictured Cliffs Gas Pool and (b) the propriety of the temporary well-spacing provisions proposed in paragraph (3) above.

WHEREFORE, premises considered, Applicant prays that the Commission, after such hearing and upon such notice as the Commission may direct, issue its order designating the lands described in paragraph (1) hereof as the Tapicito-Pictured Cliffs Gas Pool, and temporarily establishing drilling units and providing for the location of wells within said pool in the manner outlined in paragraph (3) hereof.

Respectfully submitted,

SOUTHERN UNION GAS COMPANY

By J. C. Reid
Vice President

STATE OF TEXAS)
)
COUNTY OF DALLAS)

J. C. Reid, being first duly sworn, hereby states that he is the Vice President of Southern Union Gas Company, the Applicant in the foregoing application, that as such officer he has executed said application on behalf of Southern Union Gas Company; that he has read said application and, to the best of his knowledge, information and belief, all statements of fact therein contained are true and correct.

J. C. Reid

SWORN TO AND SUBSCRIBED before me, the undersigned authority, this 24th day of October, 1955.

Estel S. Kerr
Notary Public in and for
Dallas County, Texas

My Commission Expires:

June 1, 1957

LEGAL DEPARTMENT
WILLIS L. LEA, JR.
GENERAL ATTORNEY

SOUTHERN UNION GAS COMPANY
BURT BUILDING
DALLAS 1, TEXAS

A. S. GRENIER
MILLARD F. CARR
JACK HERTZ
WM. S. JAMESON
JAS. R. WETHERBEE

April 2, 1958

Mr. A. L. Porter, Jr, Secretary
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

Enclosed herewith for filing with the Commission are four copies of an application for rehearing of Southern Union Gas Company with respect to Order No. R-794-C, entered by the Commission in Case No. 977, on March 19, 1958.

Very truly yours,



ASG:fg

Enc.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
SOUTHERN UNION GAS COMPANY FOR AN)
ORDER CREATING THE TAPACITO-PICTURED)
CLIFFS GAS POOL IN RIO ARRIBA COUNTY,)
NEW MEXICO, AND FOR THE ESTABLISHMENT)
OF 320-ACRE DRILLING UNITS WITHIN)
SAID POOL.)

CASE NO. 977

APPLICATION FOR REHEARING

Comes now Southern Union Gas Company, Applicant in the above-mentioned case, and respectfully applies for a rehearing therein. In support of such request for rehearing Applicant states that the Commission erred in entering its Order No. R-794-C dated March 19, 1958, in the following respects:

1. That said order is contrary to the evidence in that the finding is made therein that the Tapacito-Pictured Cliffs Gas Pool cannot be efficiently drained on a 320-acre spacing pattern, whereas the evidence adduced clearly shows that a well in said pool will efficiently drain an area of substantially more than 320 acres.

2. That said order is unreasonable, arbitrary and contrary to law in that, in violation of the principles of conservation established by Section 65-3-14(b) of the New Mexico Statutes, 1953, Annotated, and in violation of the duties imposed upon the Commission by Section 65-3-10 of said Statutes, said order fails to give consideration to the waste and economic loss which will be caused by the drilling of unnecessary wells, the protection of correlative rights, and the augmentation of risks arising from the drilling of an excessive number of wells; and said order is also contrary to law in other respects.

WHEREFORE, Applicant prays that this Application for Rehearing be granted for the purpose of reconsidering Order No. R-794-C, and that, after notice and hearing as required by law, the Commission modify such order

so as to continue in effect the 320-acre spacing pattern for the Tapacito-Pictured Cliffs Gas Pool originally established by the Commission in Order No. R-794.

Respectfully submitted,

SOUTHERN UNION GAS COMPANY

By A. S. Grenier
A. S. Grenier, Attorney

April 2, 1958

J. M. HERVEY 1874-1953

HIRAM M. DOW
CLARENCE F. HINKLE
W. E. BONDURANT, JR.
GEORGE H. HUNKER, JR.
HOWARD C. BRATTON
S. B. CHRISTY IV
LEWIS C. COX, JR.

PAUL W. EATON, JR.
ROBERT C. BLEDSOE

LAW OFFICES
HERVEY, DOW & HINKLE

HINKLE BUILDING
ROSWELL, NEW MEXICO

TELEPHONE MAIN 2-6510
POST OFFICE BOX 547

April 4, 1958

Mr. A. L. Porter
Executive Director
New Mexico Oil Conservation Commission
Capitol Building
Santa Fe, New Mexico

Re: Case No. 977
Order No. R-974-C
Tapacito-Pictured Cliffs Pool
Rio Arriba County, New Mexico

Dear Mr. Porter:

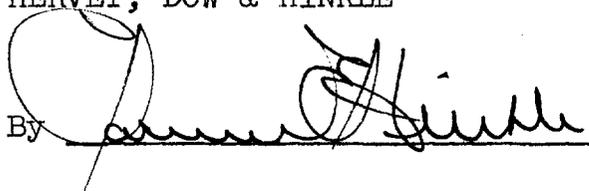
We enclose herewith in triplicate application of the Humble Oil & Refining Company for rehearing of the above case under Order No. R-974-C.

It is our understanding that the Southern Union Gas Company has also filed an application for rehearing.

We would appreciate your giving this matter prompt favorable consideration.

Yours very truly,

HERVEY, DOW & HINKLE

By 

CEH/bp
Encl.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING

CALLED BY THE OIL CONSERVATION
COMMISSION OF THE STATE OF NEW
MEXICO FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 977
Order No. R-794-C

APPLICATION OF SOUTHERN UNION GAS
COMPANY FOR AN ORDER CREATING THE
TAPACITO-PICTURED CLIFFS POOL IN
RIO ARRIBA COUNTY, NEW MEXICO, AND
FOR THE TEMPORARY ESTABLISHMENT OF
320-ACRE DRILLING UNITS WITHIN SAID
POOL.

APPLICATION FOR REHEARING

Comes the Humble Oil & Refining Company and hereby makes application for a rehearing of the above captioned case with respect to the matters hereinafter referred to which were determined by Order No. R-794-C of the New Mexico Oil Conservation Commission and in support thereof respectfully shows:

I.

That applicant is the owner, with Southern Union Gas Company, of a number of producing gas wells located within the limits of the Tapacito-Pictured Cliffs Gas Pool.

II.

That findings Nos. 4, 5 and 6, contained in Order No. R-794-C, are erroneous in that they are not supported by the evidence introduced at the hearing held before the Commission on February 13, 1958, which showed beyond a reasonable doubt that the Tapacito-Pictured Cliffs Gas Pool can be efficiently and economically drained on a 320-acre spacing pattern and that it would not be in the interest of conservation or the prevention of waste to require said pool to be developed by the drilling and spacing of wells in accordance with Rule 104 of the Commission Rules and Regulations.

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... 104

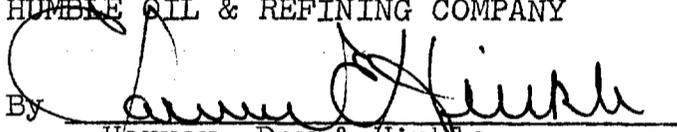
III.

That upon rehearing additional evidence will be presented by interested parties further showing that the Tapacito-Pictured Cliffs Gas Pool can be efficiently and economically developed on a 320-acre spacing pattern and that such spacing will prevent economic waste caused by the drilling of unnecessary wells.

WHEREFORE, applicant respectfully requests that the Commission grant a rehearing of the above styled case and that upon such rehearing the Commission make permanent the special field rules for the Tapacito-Pictured Cliffs Gas Pool as originally provided in Order No. R-794 entered on April 18, 1956, so that said pool may be continued to be developed upon 320-acre drilling or spacing units.

HUMBLE OIL & REFINING COMPANY

By


Hervey, Dow & Hinkle
P. O. Box 547
Roswell, New Mexico

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF)
SOUTHERN UNION GAS COMPANY FOR AN)
ORDER CREATING THE TAPACITO-PICTURED)
CLIFFS GAS POOL IN RIO ARRIBA COUNTY,)
NEW MEXICO, AND FOR THE ESTABLISHMENT)
OF 320-ACRE DRILLING UNITS WITHIN SAID)
POOL)

CASE NO. 977
Order No. R-794-E

APPLICATION FOR REHEARING

Comes now Southern Union Gas Company, Applicant in the above entitled and numbered case, and hereby applies for a rehearing therein. In support of such request for rehearing Applicant respectfully states that the New Mexico Oil Conservation Commission, in entering its Order No. R-794-E dated June 4, 1958, erred in the various respects hereinafter set forth.

1.

Said order is erroneous and contrary to the evidence in that the finding is made therein that the Tapacito-Pictured Cliffs Gas Pool cannot be efficiently drained and developed on a 320-acre spacing pattern, whereas the evidence introduced in this proceeding clearly indicates that throughout the great majority of the area of said pool, as presently defined by the Commission's orders, a well will efficiently drain a tract of substantially more than 320 acres.

The only portion of the pool in which it was indicated by the evidence that a well might not be able to drain efficiently at least as much as 320 acres consisted of a relatively minor area along the pool's outer fringes. It thus is apparent that the Commission, in making its finding that a well in the Tapacito Pool cannot efficiently drain a 320-acre tract, has failed to give consideration to conditions as they exist on the average in the pool as a whole and has given consideration instead only to conditions prevailing in the fringe areas just mentioned. The evidence introduced indicates that these fringe areas, besides representing only a small fraction of the pool's total acreage, contain an even smaller fraction of its total recoverable gas reserves. Indeed, the testimony is uncontradicted that hardly any of the wells drilled in the fringe area to date are capable of producing gas in sufficient quantities to pay for the cost of their drilling within a reasonable period of time. Plainly, such areas as these

cannot provide a valid criterion for an order covering and affecting the pool's entire area.

The statutes of New Mexico nowhere require or even intimate that the Commission, in establishing drilling units for a gas pool, may validly give consideration only to the least productive portions thereof. In no gas pool will all of the wells ever be wholly identical either with respect to their productive capacities or the areas which they can efficiently and economically drain. The characteristics of an average well in a pool plainly are entitled to greater consideration than those of the few wells with the very poorest productive capacity. It is respectfully submitted that Order No. R-794-E, insofar as it disregards the drainage capabilities of the wells constituting the overwhelming preponderance of the commercially productive wells in the pool, is arbitrary, capricious, unsupported by the evidence and, therefore, invalid and void.

2.

Said order is contrary to the evidence and invalid in that the finding is made therein that establishment of a 320-acre spacing pattern in the Tapacito-Pictured Cliffs Gas Pool would appreciably reduce the ultimate recovery from the pool as a result of the drilling of too few wells, thereby causing underground waste. The evidence introduced clearly indicates that, even though the Commission's finding might possibly be correct if applied only to the minor fringe areas where productive and drainage conditions are the poorest, 160-acre spacing will not produce materially more gas than 320-acre spacing in the case of the great majority of the pool's total area. In this connection, the evidence indicates that in the central and most representative portion of the pool, the additional volumes of gas which could be produced from the drilling of two wells instead of one on a 320-acre tract would be substantially less in value than the probable cost of drilling the second well.

As indicated by Section 65-3-14(b) of the New Mexico Statutes Annotated, 1953, prevention of reduced recoveries which might result from the drilling of too few wells is merely one of numerous factors which the Commission is required to consider in determining the proper spacing pattern for any particular pool. Also to be considered under the provisions of Section 65-3-14(b) are economic losses caused by the drilling of unnecessary wells,

the proper protection of correlative rights, and the avoidance of the augmentation of risks arising from the drilling of an excessive number of wells.

If 160-acre spacing is left in effect in the Tapacito-Pictured Cliffs Gas Pool, it is clear that tremendous economic loss will result since, as indicated by the testimony, at least 50 additional wells at a cost of \$40,000 each, or a total cost of approximately \$2,000,000, will be needed in order for the pool to be fully developed on a 160-acre spacing pattern. It is no answer to say that no operator is required to drill more than one well per 320 acres unless he so desires. If any of the operators offsetting him drills on a 160-acre basis, he is presented with but two choices: either he can refrain from drilling the extra well or wells needed to prevent his acreage from being drained, or he can stave off further injury to his correlative rights by drilling a well or wells which in most portions of the pool will not add sufficiently to his total ultimate recovery of gas to pay for the cost of their drilling. Plainly, also, if in self-protection the operator elects to follow the essentially wasteful course of doubling the number of wells on his land, a substantial augmentation of risks of the type contemplated by Section 65-3-14(b) will be unavoidable.

For the reasons stated above, it is respectfully submitted that, in addition to there being no proper foundation in the evidence for the Commission's finding that establishment of 320-acre spacing pattern would appreciably reduce the ultimate recovery of gas from the pool and thereby cause underground waste, the Commission's order establishing 160-acre spacing in the pool is invalid and void because it fails to give proper recognition to principles of conservation which the Commission by law is required to consider and observe.

3.

Said order is unsupported by the evidence in that the finding is made therein that the Tapacito-Pictured Cliffs Gas Pool can be efficiently and economically drained on a 160-acre spacing pattern and that such a pattern should be established for said pool. No evidence was adduced at the hearing tending to indicate that any significant portion of the pool could be efficiently and economically drained and developed on a 160-acre spacing pattern which could not also be so drained and developed on a 320-acre

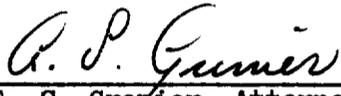
basis. In the absence of such evidence, it is clear that the Commission's establishment of a 160-acre spacing pattern for the pool is arbitrary, invalid and void.

WHEREFORE, Applicant prays that this application for rehearing be granted for the purpose of reconsidering Order No. R-794-E, and that after notice as required by law and upon rehearing, the Commission modify such order so as to continue in effect the 320-acre spacing pattern for the Tapacito-Pictured Cliffs Gas Pool originally established by the Commission in Order No. R-794.

Respectfully submitted,

SOUTHERN UNION GAS COMPANY

By


A. S. Grenier, Attorney

June 21, 1958