

CASE 22751 Application of the OCC
on its own motion to consider
prorating Atoka-Penn Gas Pool.

Case No.

2275

Application, Transcript,
and Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
May 17, 1961

IN THE MATTER OF:)
)

Application of the Oil Conservation)
Commission on its own motion to con-)
sider prorating the Atoka-Pennsylvan-)
ian Gas Pool, Eddy County, New Mexico.)

Case 2275

TRANSCRIPT OF HEARING

BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
May 17, 1961

IN THE MATTER OF:)

Application of the Oil Conservation)
Commission on its own motion to con-)
sider prorating the Atoka-Pennsylvan-)
ian Gas Pool, Eddy County, New Mexico.)

Case 2275

BEFORE: Mr. A. L. Porter,
Mr. Murray Morgan

TRANSCRIPT OF HEARING

MR. MORRIS: Application of the Oil Conservation Com-
mission on its own motion to consider prorating the Atoka-
Pennsylvanian Gas Pool, Eddy County, New Mexico.

Let the record show that the witness was sworn in the pre-
vious case, please.

(Whereupon, Commission Exhi-
bits No. 1 and 2 were marked
for identification.)

MR. PORTER: At this time I would like to call for
appearances in Case 2275, Mr. Buell.

MR. BUELL: For Pan American Petroleum Corporation,
Guy Buell.

MR. LOSEE: A. J. Losee, Losee and Stewart, Artesia,
New Mexico for Yates Petroleum Corporation and Martin Yates, III.

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MR. SETH: Oliver Seth for Ohio Oil Company with Mr. Terrell Couch from the Ohio.

MR. ANDERSON: R. M. Anderson, Sinclair Oil and Gas Company.

MR. KNIGHT: Will Knight, Southern Union Gas Company.

MR. DINGER: T. J. Leighner, Standard Oil Company of Texas and California Oil Company.

MR. PORTER: Mr. Morris, you may proceed.

ELVIS A. UTZ

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

DIRECT EXAMINATION

BY MR. MORRIS:

Q Will the witness please state his name and position?

A Elvis A. Utz, Engineer with the Oil Conservation Commission.

Q Mr. Utz, have you made a study concerning the necessity of prorating the Atoka-Pennsylvanian Gas Pool in Eddy County, New Mexico?

A Yes, sir, I have.

Q Would you proceed and give us your comments on the result of that study?

A I have a prepared statement which I would be glad to read and two exhibits which I will cover. The Atoka-

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Pennsylvanian Gas Pool was discovered in September, 1955 by Standard of Texas, Everest No. 1; until October 1960 there was very little market for the gas. At this time the Transwestern Pipeline Company of Houston, Texas began taking gas from the pool.

The next month, November, 1960, the Southern Union Company also began purchasing from the pool. At the present time there are eleven wells completed, nine of which are connected to transportation facilities, as of the time of this writing. I understand that possibly two Yates wells are now connected.

As required by Chapter 65, Article 3 of the 1953 New Mexico Statutes, the Commission makes periodic surveys of non-prorated gas pools. In connection with this routine it was noted that the production from the wells in the Atoka-Pennsylvanian Gas Pool did not conform to any pattern, and because of this, correlative rights were not being protected. In this case I intend to show by the pool's production history that the correlative rights are not being protected and that the pool should be prorated.

Exhibit 1, which is an outline of the pool, merely shows the nomenclature of the pool. There are figures inside the pool limits which are numbered, and the numbers are listed below, which list each individual well in the pool. It's merely to show the outline of the pool, the location and the development up to the time the exhibit was made.



Exhibit No. 2 is a bar graph which shows the production from each well connected in the pool. The production, well, the vertical scale is in MCF, the horizontal scale is non-dimensional and merely shows the relationship between the production of the wells. The vertical bar graphs on the vertical scale are in MCF and per day for the number of days that the well has been connected to the pipe line. It might be two months, it might be one month, it might be six months, but the average production for the time that the well has been reported to us as being connected.

There are nine wells in this study. The first well has average production of 1557 MCF a day, the second one of 1947 MCF per day; the third one, 1468; the fourth, 1323; the next one, 4419, and then we drop down to 526 MCF per day. The next one, 775, 1565 and 225. This, to me, shows that the takes in the Atoka-Pennsylvanian connection has been on no pre-determined basis. It appears to be first come, first served, or you'll note that the one well here produced quite a lot more than the other wells.

If they were taking from the pool on a straight acreage basis, then all of these should be relatively even across the top. If they were taking on some deliverability formula, then you would have a certain slope which would be even.

Now, I haven't shown, arranged these to prepare what the slope might be in accordance with the absolute open flows or the potentials, and I'm not too sold on the potentials we have in

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this pool at the present time anyway, so I didn't want to use bad information in order to try to show something. From the information that we do have, it makes no rhyme or reason as far as straight acreage or deliverability takes. In my opinion, this study shows that the correlative rights are being considerably disturbed; further, it has been my experience that where this condition exists, it becomes worse rather than better.

There is little doubt in my mind that this will be true in this pool. It is, therefore, my opinion that the best way to prevent waste and to protect correlative rights is to prorate the pool on a straight acreage basis. My recommendation to the Commission, insofar as this case is concerned, is that in order to prevent waste and to protect correlative rights, the Commission prorate the Atoka-Pennsylvanian Gas Pool on a straight acreage basis beginning July 1st, 1961.

I would further recommend that the order be written in this case to provide that other proration factors be studied after more reservoir data is available and that well tests should be conducted in order to obtain satisfactory data with which to make such a study.

That completes my case.

Q Mr. Utz, are you aware of any factors that exist in this pool that should be considered to exempt any well from prorationing?

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A I have never felt that any prorated gas pool that there were any factors that would cause a well to be exempt from prorationing.

Q Mr. Utz --

A If you are going to prorate all of them you ought to prorate them all, you shouldn't prorate just part of them.

Q On your average per day figures that you used in preparing Exhibit No. 2, did you use the latest available data that you had?

A Yes, sir, I did. I used the producers' reports, the C-115's, as reported by the producers, through the last month available at the time this was made. The last month available was March, 1961. We don't have April as yet.

Q Did you prepare Exhibits No. 1 and 2, Mr. Utz?

A Yes, I did.

MR. MORRIS: At this time, Mr. Commissioner, we would like to offer Commission Exhibits No. 1 and 2 in Case 2275 into evidence.

MR. PORTER: Without objection, the exhibits will be admitted to the record.

MR. MORRIS: That concludes the direct examination of this witness.

MR. PORTER: Any questions of the witness? He may be excused.

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(Witness excused.)

MR. PORTER: Does anyone else desire to present testimony in the case? Then I'll call for statements.

MR. ANDERSON: R. M. Anderson, Sinclair Oil and Gas Company. We have 160 acres within the probable field limits which is currently being developed and we concur with Mr. Utz' recommendations to prorate the field.

MR. PORTER: Mr. Couch.

MR. COUCH: Terrell Couch of the Ohio Oil Company. The Ohio certainly agrees that proration should be applied to this field, and that it should be at this time on the basis of one hundred percent acreage. However, Ohio is inclined to believe that in order to afford each interested party a reasonable opportunity to recover its fair share of recoverable gas and liquid hydrocarbons, the proration formula should include deliverability or some other factor that will give greater protection to the correlative rights. Therefore, as an aid to further evaluation by the Commission and by all interested parties, the Ohio recommends that the order to be entered by the Commission in this case include a provision specifically requiring that certain tests be run on each well in this pool during the month of August or September, 1961, as directed by the Commission, and that the results of such tests be reported to the Commission so as to be available to all interested

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parties. This is the testing program which the Ohio recommends. First, a multi point back pressure test to be run in accordance with the Commission's manual for back pressure test for natural gas, such test to include at least one point taken after a flow period of a minimum of twenty-four hours and the results of the test to be reported on Form C-122.

Second, a static bottom hole pressure test to be taken at the end of the seventy-two-hour shutin period required at the beginning of the multi point back pressure test. The bottom hole pressure test to be corrected to a datum of 5600 feet subsea and reported to the Commission on Form C-124, including a pressure gradient and all data provided for in that formula.

Third, that the deliverability of each well, based upon the twenty-four-hour flow period, and other data obtained during the multi point back pressure test, should be calculated in accordance with the Commission's memorandum of March 15, 1954, with such modifications as the Commission deems necessary, and that the result of that calculation be reported to the Commission on Form C-122 C.

Ohio believes that by this testing program we will have comparable data from these tests on all wells in the field at approximately the same time and that the information obtained from such a testing program, together with other data and information, will enable the Commission and all interested parties to make a

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~~more complete study of the type of proration formula needed to~~
protect correlative rights in this pool to the extent that they
can be protected. This should furnish us a basis for further
consideration of this question at a hearing by the Commission,
if any interested operator or other party deems it advisable to
have such a hearing.

Thank you, sir.

MR. PORTER: Mr. Buell.

MR. BUELL: Pan American would concur that this pool
be prorated. We would also concur with the recommended pro-
ration or allocation formula of one hundred percent acreage.

With respect to the testing program recommended by Ohio,
we would be completely willing to run such tests. They'll not
be expensive to run and will be an excellent source of engineer-
ing data other than deliverability. We will be perfectly willing
to take the tests.

MR. PORTER: Mr. Kellahin.

MR. KELLAHIN: Jason Kellahin, Kellahin and Fox,
representing Standard Oil Company of Texas. Standard is in
accord with the recommendations that have been made by Mr.
Utz to the effect this pool be prorated, and supports the recom-
mendation of the one hundred percent acreage as the basis of the
proration formula. In accordance, the Standard is in accord
with the recommendation that these tests be made.

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MR. PORTER: Mr. Losee.

MR. LOSEE: Yates Petroleum Corporation operates two wells in this pool. It also owns a working interest in two other wells in the pool and Martin Yates the III is the owner of a third working interest in the Atoka Gas Pool. These parties concur with the recommendation of Mr. Utz to prorate the Atoka-Pennsylvanian on a one hundred percent acreage basis effective June 1, 1961.

We have no recommendations for any tests to be made on the wells in the pool. We will be willing to make such reasonable tests on our wells as required by the Commission to further evaluate the pool. However, Yates does not, at this time, want to go on record as recommending any other method for prorating the Atoka-Pennsylvanian Gas Pool other than a straight acreage formula.

MR. GORDON: J. C. Gordon, Jr., Socony Mobil. Socony Mobil, as an interest owner in the field, concurs with the recommendation of Mr. Utz for the proration of gas production on the basis of acreage and acreage alone, at this time.

MR. PORTER: Any further statements? The Commission will take the case under advisement and we'll take up next Case 1669.

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STATE OF NEW MEXICO)
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 22nd day of May, 1961.

Ada Dearnley
Notary Public-Court Reporter

My Commission Expires:

June 19, 1963.

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ALBUQUERQUE, NEW MEXICO



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:

CASES NOS. 2275 AND 1669
Order No. R-1670-E

APPLICATION OF THE OIL CONSERVATION
COMMISSION ON ITS OWN MOTION TO CON-
SIDER PRORATING THE ATOKA-PENNSYLVANIAN
GAS POOL, EDDY COUNTY, NEW MEXICO, AND
TO ESTABLISH SPECIAL RULES AND REGULA-
TIONS FOR SAID POOL.

ORDER OF THE COMMISSION

BY THE COMMISSION:

These cases came on for hearing at 9 o'clock a.m. on May 17, 1961, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 25th day of May, 1961, the Commission, a quorum being present, having considered the testimony presented and the exhibits received in the hearing of said cases, 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 these cases and the subject matter thereof.

(2) That the producing capacity of the wells in the Atoka-Pennsylvanian Gas Pool, Eddy County, New Mexico, is in excess of the market demand for gas from this pool, and that for the purpose of preventing waste and protecting correlative rights, said pool should be prorated.

(3) That the proration formula for said pool should be based only on surface acreage, provided, however, that all operators in said pool should be required to take such tests as the Commission prescribes by memorandum to determine whether factors other than acreage should be included in the proration formula, such tests to be taken and their results reported to the Commission in accordance with said memorandum.

(4) That Orders Nos. R-1417 and R-1417-A established temporary special rules and regulations governing the subject pool, which special rules and regulations should be made permanent.

IT IS THEREFORE ORDERED:

(1) That the Atoka-Pennsylvanian Gas Pool, Eddy County, New Mexico, shall be prorated, effective July 1, 1961.

(2) That the proration formula for the Atoka-Pennsylvanian Gas Pool shall be based only on surface acreage.

PROVIDED HOWEVER, That all operators in said pool shall take such tests as the Commission shall prescribe by memorandum to determine whether factors other than acreage should be included in the proration formula, such tests to be taken and their results reported to the Commission in accordance with said memorandum.

PROVIDED FURTHER, That jurisdiction of this cause is retained for the entry of such further orders as the Commission deems necessary, including the entry of an order or orders changing the proration formula to include factors other than acreage.

(3) That the General Rules applicable to prorated gas pools in Southeast New Mexico, as set forth in Order No. R-1670, shall apply to the Atoka-Pennsylvanian Gas Pool, unless in conflict with the Special Rules and Regulations for said pool as hereinafter set forth, in which event the Special Rules shall apply.

(4) That Orders Nos. R-1417 and R-1417-A are hereby superseded.

SPECIAL RULES AND REGULATIONS FOR THE
ATOKA-PENNSYLVANIAN GAS POOL

A. WELL LOCATION AND ACREAGE REQUIREMENTS

RULE 2: Each well completed or recompleted in the Atoka-Pennsylvanian Gas Pool shall be located in the northwest quarter or the southeast quarter of the section and shall be located no nearer than 990 feet to the outer boundary of the quarter section nor nearer than 330 feet to any governmental quarter-quarter section line, provided, however, that any well which was projected to or completed in said pool prior to June 5, 1959, is excepted from the requirements of this rule.

RULE 3: The Secretary-Director shall have authority to grant exceptions to Rule 2 without notice and hearing where an application therefor has been filed in due form and the necessity for the unorthodox location is based on topographical conditions or is occasioned by the recompletion of a well previously drilled to another horizon.

Applicants shall furnish all offset operators and all operators within the section in which the subject well is located a copy of the application to the Commission and shall

stipulate to the Commission that proper notice has been furnished to all such operators. The Secretary-Director may approve the application if, after a period of twenty days, no offset operator has entered an objection to the proposed unorthodox location.

RULE 5(A): Each well completed or recompleted in the Atoka-Pennsylvanian Gas Pool shall be located on a tract consisting of approximately 320 acres comprising any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the U. S. Public Lands Survey. For purposes of these rules, a unit consisting of between 316 and 324 surface contiguous acres shall be considered a standard unit.

RULE 5(C): The Secretary-Director shall have authority to grant an exception to Rule 5(A) without notice and hearing where an application has been filed in due form and where the unorthodox size or shape of the tract is due to a variation in the legal subdivision of the U. S. Public Lands Survey, or where the following facts exist and the following provisions are complied with:

(1) The non-standard unit consists of contiguous quarter-quarter sections or lots.

(2) The non-standard unit lies wholly within a single governmental section.

(3) The entire non-standard unit may reasonably be presumed to be productive of gas from the Atoka-Pennsylvanian Gas Pool.

(4) 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 any part of the non-standard unit is situated and which acreage is not included in said non-standard unit.

(5) In lieu of Paragraph 4 of this Rule, the applicant may furnish proof of the fact that all of the aforesaid operators were notified by registered mail of his intent to form such non-standard unit. The Secretary-Director may approve the application if, after a period of thirty days, no such operator has entered an objection to the formation of such non-standard unit.

RULE 5(A): The pool allowable remaining each month after deducting the total allowable assigned to marginal wells shall be allocated among the non-marginal wells entitled to an allowable in the proportion that each well's acreage factor bears to the total of the acreage factors for all non-marginal wells in the pool.

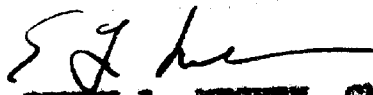
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CASES NOS. 2275 AND 1669
Order No. R-1670-E

RULE 2(A): A well's "Acreage Factor" shall be determined to the nearest hundredth by dividing the acreage assigned to the well by 320 acres. However, the acreage tolerance provided in Rule 3(A) shall apply.

RULE 25: That the vertical limits of the Atoka-Pennsylvanian Gas Pool shall be the Pennsylvanian formation.

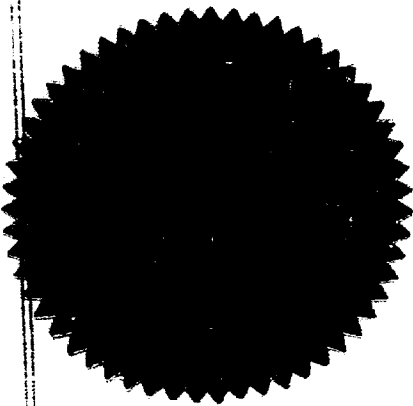
DONE at Santa Fe, New Mexico, on the day and year herein above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


EDWIN L. NEUMAN, Chairman


E. S. WALKER, Member


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



TESTIMONY FOR ATOKA-PENNSYLVANIAN GAS PRORATION

The Atoka-Pennsylvanian gas pool was discovered in September 1957, by the Std. of Texas Everest #1. Until October 1960, there was very little market for the gas. At this time the Transwestern Pipeline Company of Houston, Texas, began taking gas from this pool. The next month, November 1960, Southern Union Gas Company, also began purchasing gas from the pool.

At the present time there are 11 wells completed, nine of which are connected to transportation facilities.

As required by Chapter 65, Article 3 of the 1953 New Mexico Statutes, the Commission makes periodic surveys of non-prorated gas pools. In connection with this routine it was noted that the production from the wells in the Atoka-Pennsylvanian gas pool did not conform to any pattern and because of this, correlative rights were not being protected. In this case, I intend to show by the pool's production history that correlative rights are not being protected and that the pool should be prorated.

Exhibit No. 1 is a plat showing the areal extent of the pool according to the latest Commission nomenclature. The numbers in the pool indicate the location of the wells as to the 40-acre tract and correspond to the numbers listed below the plat of the pool. The only purpose of this exhibit is to show the location, development, and areal extent of the pool.

Exhibit No. 2 is a bar graph showing the production from each connected well in the pool. The production shown by the bars is the daily average for the time each well has been connected to a transportation facility. The vertical scale is in MCF. The horizontal scale is dimensionless and shows the relationship of production between the wells. As may be seen the average daily production for the wells varies considerable and does not follow any pattern which indicates to

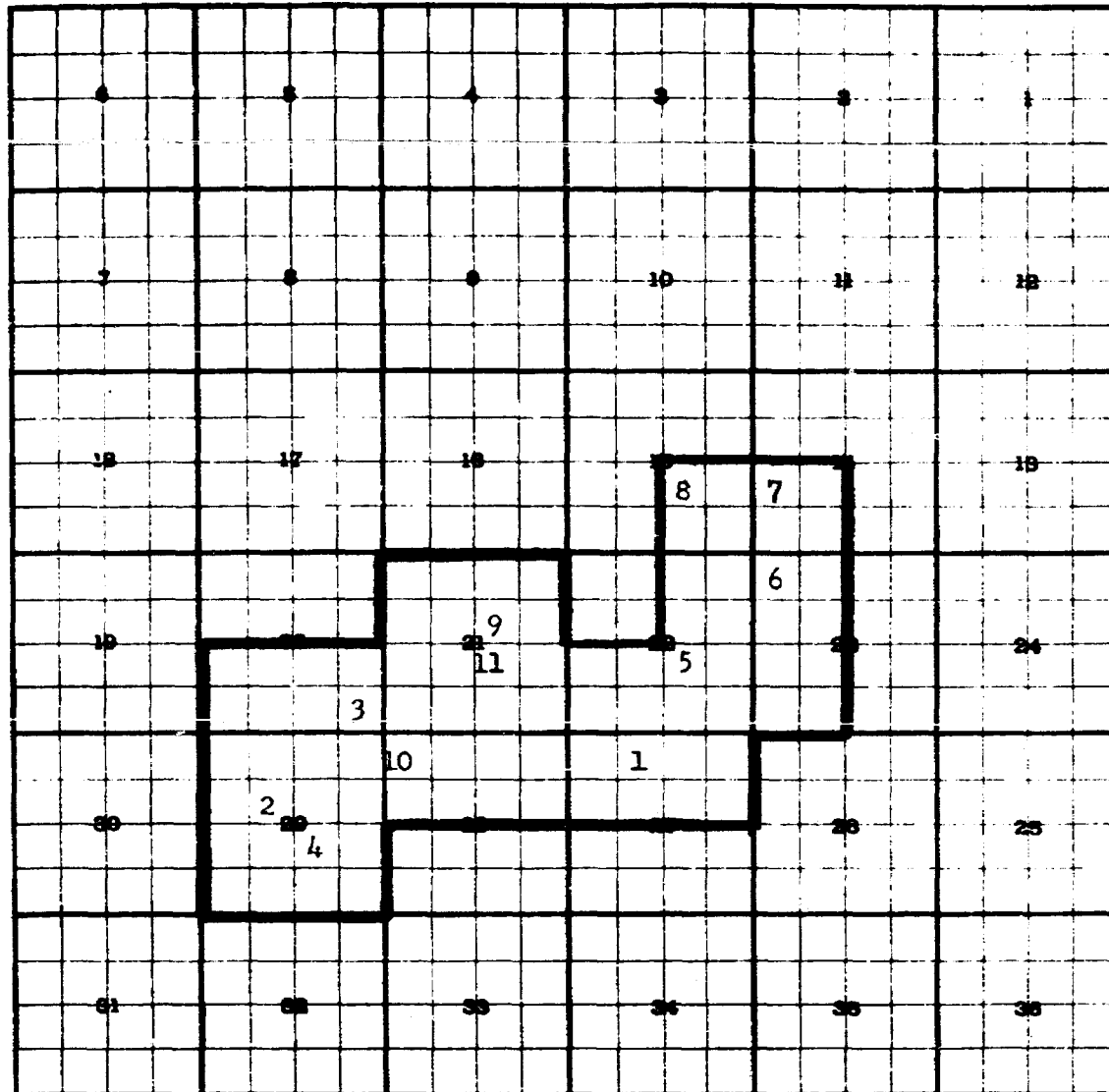
me that voluntary proration is not being practiced. It also indicates that correlative rights are being considerably disturbed. Further, it has been my experience that where this condition exists it becomes worse rather than better. There is little doubt in my mind that this will be true in this pool.

It is therefore my opinion that the best way to prevent waste and protect correlative rights is to prorate the pool on a straight acreage basis.

I recommend that in order to prevent waste and protect correlative rights, the Commission prorate the Atoka-Pennsylvanian gas pool on a straight acreage basis beginning July 1, 1961. I would further recommend that the order written in this case provide that other proration factors be studied after more reservoir data is available.

County EDDY Pool ATOKA * PENNSYLVANIAN

TOWNSHIP 18 South, RANGE 26 East, NEW MEXICO PRINCIPAL MERIDIAN



1. Nearburg and Ingram-Hawkins # 2, ACF 7600 plus 22 dist. N/2
2. Ohio-Andrew Arnquist Est. #1, ACF 545000, GOR E22E2, N/2
3. Ohio-Ethel Noel-#1, ACF 64000, GOR 6979', S/2
4. Ohio-Ralph Nix #1, ACF 4567 plus 43.92 dist. S/2
5. Pan American-Flint G.U.#1, ACF 21500, GOR 175666, S/2 318.58, 10 Ac. unleased
6. Pan American- C.R.Martin #3, 3720 thru 24/64 choke, N/2
7. Std. of Tex.-Everest#1, ACF 23000, plus 12,56 gr. dist., no plat.
8. Std. of Tex.-C.R.Martin#1, ACF 43000, SE/4
9. H.Olsen-Dayton Townsite#1, 163 thru 16/64, N/2
10. Yates-Len Mayer#1, N/2
11. Yates-Bob Gushwa #1, S/2

Case No. 2275
Exhibit No. 1