Case No.

1439

Application, Transcript,
Small Exhibits, Etc.

CASE 1432: SOUTHERN UNION GAS CO. application for Rehearing.

193

8

for Rehearing

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

July 3, 1958

COPY

Mr. A. E. Grenier
Southern Union Gas Company
Burt Building
Dallas 1, Texas

Dear Mr. Grenier:

We enclose a copy of Order R-1193-A issued July 3, 1958, by the Oil Conservation Commission in Case 1439.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

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 NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 1439
Order No. R-1193-A

APPLICATION OF THE OIL CONSERVATION
COMMISSION UPON ITS OWN MOTION FOR
AN ORDER INSTITUTING GAS PRORATIONING
AND PROMULGATING RULES AND REGULATIONS
FOR THE TAPACITO-PICTURED CLIFFS GAS
POOL, IN RIO ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for reconsideration upon the petition of Southern Union Gas Company for a rehearing in Case No. 1439, Order No. R-1193, heretofore entered by the Commission on June 10, 1958.

NOW, on this 3rd day of July, 1958, the Commission, a quorum being present, having considered the petition for rehearing,

FINDS:

(1) That the only issue raised in the petition for rehearing deals with the proper size of gas proration units in the Tapacito-Pictured Cliffs Gas Pool.

(2) All evidence relevant and material to the issue of spacing in the Tapacito-Pictured Cliffs Gas Pool was fully considered by the Commission in Case No. 977, and Order No. R-794-C, dated March 19, 1958, was entered establishing 160-acre proration units in said pool. Upon petition for rehearing by the applicant, Southern Union Gas Company, the case was reopened and additional evidence was received and considered by the Commission, whereupon Order No. R-794-E, dated June 4, 1958, was entered establishing 160-acre proration units in the Tapacito-Pictured Cliffs Gas Pool.

(3) That the only evidence in the record of Case No. 1439 pertaining to spacing in the Tapacito-Pictured Cliffs Gas Pool is that evidence which was presented in Case No. 977 and incorporated by reference in Case No. 1439.

(4) That the petition for rehearing does not allege that the applicant has any new or additional evidence to present in this case.

(5) That in view of the fact that the Commission has twice considered the issue raised in the petition for rehearing, further consideration of this issue would be repetitious and would serve no useful purpose.

(6) That the petition for rehearing should be denied.

IT IS THEREFORE ORDERED:

That the petition of Southern Union Gas Company for rehearing in Case No. 1439, Order No. R-1193, be and the same is hereby denied.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

MURRAY E. MORGAN, Member

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

ir/

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

June 26, 1958

AIR MAIL

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 of Southern Union Gas Company for a rehearing with respect to Order No. R-1193, entered by the Commission in Case No. 1439 on June 10, 1958.

Yours very truly,

A. S. Grenier

ASG/mg

Enc.

cc: Mr. Jason W. Kellahin/w-enc.

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF THE OIL CONSERVATION COMMISSION UPON ITS OWN MOTION FOR AN ORDER INSTITUTING GAS PRORATIONING AND PROMULGATING RULES AND REGULATIONS FOR THE TAPACITO-PICTURED CLIFFS GAS POOL IN RIO ARRIBA COUNTY, NEW MEXICO	CASE NO. 1439 Order No. R-1193

APPLICATION FOR REHEARING

Comes now Southern Union Gas Company, one of the parties of record in the above entitled and numbered case (herein referred to as "Applicant"), 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-1193 dated June 10, 1958, erred in the various respects hereinafter set forth.

Said order is erroneous and contrary to the evidence in that the finding is made therein (incorporated by reference to finding No. 3 of Order No.R-794-E) that the Tapacito-Pictured Cliffs Gas Pool cannot be efficiently drained and developed on a 320-acre spacing pattern, whereas the evidence included in the record of this proceeding clearly indicates that throughout the great majority of the area of said pool, as defined in Exhibit "A" to Order No. R-1193, 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 consists 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 fixing the size of proration 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-1193, 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 (incorporated by reference to finding No. 3 of Order No. R-794-E) 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 size of proration unit for any particular pool. Also required to be considered under the provisions of Sec-

tion 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 proration units are established 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, or if a sufficient number of wells are drilled in the pool on a 160-acre spacing pattern to have a material adverse effect on his own allowables, 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 and to give him his fair share of the pool's total allowable, 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, insofar as it purports to establish 160-acre proration units for the entire 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 (incorporated by reference to finding No. 4 of Order No. R-794-E) 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 160-acre proration units for the entire pool is arbitrary, invalid and void.

WHEREFORE, Applicant prays that this application for rehearing be granted for the purpose of reconsidering Order No. R-1193, and that after notice as required by law, and upon rehearing, the Commission modify such order so as to prescribe 320 acres as the standard proration unit for the entire Tapacito-Pictured Cliffs Gas Pool or for such portion of the pool as the evidence indicates can be efficiently and economically drained and developed by one well per 320-acre tract.

Respectfully submitted,

SOUTHERN UNION GAS COMPANY

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

June 26, 1958

Case No.

1439

Application, Transcript,
Small Exhibits, Etc.

TAPICITO-PC PRORATION & [redacted] Case 1439

No. 14-58

DOCKET: REGULAR HEARING MAY 14 1958

Oil Conservation Commission 9 a.m. Mabry Hall, State Capitol, Santa Fe, New Mexico

ALLOWABLE: (1) Consideration of the oil allowable for June, 1958.

(2) Consideration of the allowable production of gas for June, 1958, for six prorated pools in Lea County, New Mexico, and also presentation of purchasers' nominations for the six-month period beginning July 1, 1958; consideration of the allowable production of gas from six prorated pools in San Juan and Rio Arriba Counties, New Mexico, for June, 1958.

NEW CASES

CASE 977: In the matter of the rehearing in Case 977, Order No. R-794-D upon the petition of Southern Union Gas Company, et al., to reconsider its application for the establishment of 320-acre drilling units in the Tapacito-Pictured Cliffs Gas Pool in Rio Arriba County, New Mexico.

CASE 1439: In the matter of the hearing called by the Oil Conservation Commission of New Mexico on its own motion to consider the institution of gas prorationing in the Tapacito-Pictured Cliffs Gas Pool in Rio Arriba County, New Mexico.

CASE 1440: Application of Skelly Oil Company for an order promulgating temporary special rules and regulations for the Otero-Gallup Oil Pool in Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating temporary special rules and regulations for the Otero-Gallup Oil Pool in Rio Arriba County, New Mexico, to provide for 80-acre proration units, well spacing, and such other provisions as the Commission may deem necessary and proper.

CASE 1441: Application of Pubco Petroleum Corporation for an order promulgating temporary special rules and regulations for the Verde-Gallup Oil Pool in San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating temporary special rules and regulations for the Verde-Gallup Oil Pool in San Juan County, New Mexico, to provide for 80-acre proration units, well spacing, and such other rules and regulations as the Commission may deem necessary and proper.

CASE 1442: Application of Pure Oil Company for the extension of the South Vacuum (Devonian) Pool and for the promulgation of special rules and regulations for said pool. Applicant, in the above-styled cause, seeks an order extending the horizontal limits of the South Vacuum (Devonian) Pool to include certain acreage in Township 18 South, Ranges 35 and 36 East; Township 19 South, Ranges 35 and 36 East, in Lea County, New Mexico. The applicant further proposes that

special rules and regulations for the South Vacuum (Devonian) Pool be promulgated incorporating, among other provisions, the establishment of 80-acre proration units in the South Vacuum (Devonian) Pool.

CASE 1443: In the matter of the hearing called by the Oil Conservation Commission of New Mexico on its own motion to revise Rule 112 (a) to permit administrative approval of oil over gas and oil-oil dual completions under certain circumstances.

CASE 1444: Southeastern New Mexico Nomenclature case calling for an order for the creation of new pools and the extension of existing pools in Lea, Eddy, Chaves and Roosevelt Counties, New Mexico.

(a) Create a new oil pool for San Andres production, designated as the West Crossroads-San Andres Pool, and described as:

TOWNSHIP 9 SOUTH, RANGE 35 EAST, NMPM
Section 21: SW/4

(b) Create a new gas pool for Pennsylvanian production, designated as the Halfway-Pennsylvanian Gas Pool, and described as:

TOWNSHIP 20 SOUTH, RANGE 32 EAST, NMPM
Section 25: SE/4

(c) Create a new gas pool in Eddy County, New Mexico, classified as a gas pool for Pennsylvanian production, designated as the Shugart-Pennsylvanian Gas Pool, and described as:

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM
Section 34: NE/4

(d) Extend the Atoka-Grayburg Pool to include:

TOWNSHIP 18 SOUTH, RANGE 26 EAST, NMPM
Section 13: SW/4 NE/4

(e) Extend the Caprock-Queen Pool to include:

TOWNSHIP 13 SOUTH, RANGE 32 EAST, NMPM
Section 29: W/2 NW/4

TOWNSHIP 14 SOUTH, RANGE 31 EAST, NMPM
Section 20: E/2 SE/4

(f) Extend the Jalmat Gas Pool to include:

TOWNSHIP 22 SOUTH, RANGE 35 EAST, NMPM
Section 11: SW/4

TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM
Section 10: SW/4

(g) Extend the Justis-Drinkard Pool to include:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 24: NW/4

(h) Extend the Justis-McKee Pool to include:

TOWNSHIP 25 SOUTH, RANGE 37 EAST, NMPM
Section 13: S/2 SE/4

(i) Extend the Pearl-Queen Pool to include:

TOWNSHIP 19 SOUTH, RANGE 35 EAST, NMPM
Section 28: S/2 & NE/4
Section 29: S/2
Section 30: SE/4
Section 31: NE/4

(j) Extend the Roberts Pool to include:

TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM
Section 9: W/2 SW/4

(k) Extend the North Shugart-Grayburg Pool to include:

TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM
Section 9: SE/4
Section 10: SW/4
Section 15: N/2 NW/4

(l) Contract the Forrest Pool by the deletion of the following described area:

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM
Section 35: NE/4, N/2 SE/4, and SE/4 SE/4

(m) Contract the Square Lake Pool by the deletion of the following described area:

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM
Section 35: SW/4 SE/4

(n) Extend the Square Lake Pool to include:

TOWNSHIP 16 SOUTH, RANGE 29 EAST, NMPM
Section 35: NE/4

(o) Extend the Townsend-Wolfcamp Pool to include:

TOWNSHIP 16 SOUTH, RANGE 36 EAST, NMPM
Section 6: Lots 1, 2, 7 & 8

(p) Extend the Warren-McKee Pool to include:

TOWNSHIP 20 SOUTH, RANGE 38 EAST, NMPM
Section 19: SW/4 NE/4

(q) Extend the Milnesand-Pennsylvanian Pool to include therein:

TOWNSHIP 8 SOUTH, RANGE 35 EAST, NMPM
Section 18: SE/4 & N/2 NW/4

CASE 1445: Northwestern New Mexico nomenclature case calling for an order for the extension of existing pools in San Juan and Rio Arriba Counties, New Mexico.

(a) Extend the Aztec-Pictured Cliffs Pool to include:

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM
Section 35: All

TOWNSHIP 29 NORTH, RANGE 10 WEST, NMPM
Section 32: N/2
Section 33: NW/4

TOWNSHIP 30 NORTH, RANGE 10 WEST, NMPM
Section 7: S/2

(b) Extend the Blanco-Pictured Cliffs Pool to include:

TOWNSHIP 29 NORTH, RANGE 9 WEST, NMPM
Section 4: S/2
Section 9: All
Section 10: NW/4
Section 15: NW/4
Section 16: N/2
Section 17: All

TOWNSHIP 30 NORTH, RANGE 9 WEST, NMPM
Section 31: SE/4

(c) Extend the Gavilan-Pictured Cliffs Pool to include:

TOWNSHIP 24 NORTH, RANGE 1 WEST, NMPM
Section 6: NW/4

TOWNSHIP 24 NORTH, RANGE 2 WEST, NMPM
Section 1: E/2

TOWNSHIP 25 NORTH, RANGE 1 WEST, NMPM
Section 19: W/2

TOWNSHIP 25 NORTH, RANGE 2 WEST, NMPM
Section 3: SW/4
Section 4: SE/4
Section 10: W/2 & NE/4
Section 13: S/2
Section 36: E/2

(d) Extend the South Blanco-Pictured Cliffs Pool to Include:

TOWNSHIP 24 NORTH, RANGE 2 WEST, NMPM
Section 8: N/2
Section 9: All
Section 14: SE/4
Section 22: S/2
Section 23: All
Section 24: SW/4
Section 25: N/2
Section 27: NW/4

TOWNSHIP 24 NORTH, RANGE 5 WEST, NMPM
Section 3: W/2

TOWNSHIP 25 NORTH, RANGE 3 WEST, NMPM
Section 21: S/2
Section 22: W/2

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Section 34: S/2

TOWNSHIP 25 NORTH, RANGE 6 WEST, NMPM
Section 4: All
Section 9: NW/4

TOWNSHIP 26 NORTH, RANGE 6 WEST. NMPM
Section 31: S/2

TOWNSHIP 27 NORTH, RANGE 8 WEST, NMPM
Section 32: N/2

TOWNSHIP 28 NORTH, RANGE 8 WEST, NMPM
Section 23: S/2
Section 26: N/2

(e) Extend the Tapacito-Pictured Cliffs Pool to include:

TOWNSHIP 25 NORTH, RANGE 3 WEST, NMPM
Section 1: SW/4
Section 2: S/2

(f) Extend the West Kutz-Pictured Cliffs Pool to include :

TOWNSHIP 27 NORTH, RANGE 12 WEST, NMPM
Section 5: SE/4
Section 8: NE/4

(g) Extend the Otero Graneros-Dakota Pool to include:

TOWNSHIP 25 NORTH, RANGE 5 WEST, NMPM
Section 10: SW/4
Section 15: NW/4

(h) Extend the Bisti-Lower Gallup Oil Pool to include:

TOWNSHIP 24 NORTH, RANGE 9 WEST, NMPM
Section 9: SW/4
Section 17: N/2

TOWNSHIP 24 NORTH, RANGE 10 WEST, NMPM
Section 4: S/2
Section 9: NE/4
Section 12: S/2
Section 13: NE/4

TOWNSHIP 25 NORTH, RANGE 12 WEST, NMPM
Section 10: NE/4

TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM
Section 20: SW/4

(i) Extend the Verde Gallup Oil Pool to include:

TOWNSHIP 31 NORTH, RANGE 15 WEST, NMPM
Section 20: SW/4
Section 31: NW/4

ga

SOUTHERN UNION GAS COMPANY
BURT BUILDING
DALLAS 1, TEXAS

July 17, 1958

Mr. Elvis Utz
New Mexico Oil Conservation Commission
Santa Fe, New Mexico

Dear Elvis:

Attached is schedule of gas wells tied into the pipe line system of Southern Union Gas Company in the Tapocito Pictured Cliffs Pool, San Juan Basin, New Mexico, current to June 30, 1958.

Our failure to furnish this data earlier was due to an inadvertent oversight in mailing. The schedules were originally prepared several weeks ago but were with held pending issuance of the proration order by the commission officially effecting prorationing in the pool and in so doing, we neglected the mailing altogether until Al Wiederkehr reminded us about it yesterday. We were then delayed another day in revising and printing of the schedule to bring it up to date through June.

With apologies and best personal regards, we are

Yours very truly,

J. R. Bynum, Administrator
Gas Contracts & Prorations Section

JRB:bjj
Attachment

c/c - OCC - Aztec

SOUTHERN UNION GAS COMPANY

TAPACITO PICTURED CLIFF POOL WELLS CONNECTED AS OF JUNE 30, 1958

Producer	Lease	Well Number	Unit Letter	Section	Township	Range	Kind of Well
Honolulu Oil Corp.	Jicarilla	1	N	10	26	4	Gas
" " "	"	2	G	9	26	4	"
" " "	"	3	G	9	26	4	"
" " "	"	4	G	4	26	4	"
" " "	"	6	G	3	26	4	"
Southern Union Gas Co.	Jicarilla	1-A	K	23	26	4	Gas
" " " "	"	2-A	M	14	26	4	"
" " " "	"	4-A	N	13	26	4	"
" " " "	"	5-A	A	23	26	4	"
" " " "	"	2-C	M	11	26	4	"
" " " "	"	1-D	D	32	26	3	"
" " " "	"	2-D	K	29	26	3	"
" " " "	"	3-D	I	32	26	3	"
" " " "	"	4-D	H	30	26	3	"
" " " "	"	5-D	K	30	26	3	"
" " " "	"	1-E	J	16	26	4	"
" " " "	"	2-E	K	15	26	4	"
" " " "	"	3-E	B	15	26	4	"
" " " "	"	4-E	A	22	26	4	"
" " " "	"	5-E	F	16	26	4	"
" " " "	"	6-E	B	21	26	4	"
" " " "	"	2-H	G	17	26	4	"
" " " "	McCroden	1	M	3	25	3	"
" " " "	"	1-A	A	9	25	3	"
" " " "	"	1-B	K	4	25	3	"

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.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on November 16, 1955, January 16, 1957, March 14, 1957, August 15, 1957, and again on February 13, 1958, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 19th. day of March, 1958, the Commission, a quorum being present, having considered the testimony and the evidence adduced at said hearings 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 Tapacito-Pictured Cliffs Pool in Rio Arriba County, New Mexico, was created by Order No. R-794 dated April 18, 1956, and that, upon application of Southern Union Gas Company, temporary 320-acre spacing was established in said pool.

(3) That paragraph (10) of Order No. R-794 ordered Southern Union Gas Company to appear and show cause why temporary 320-acre spacing should be continued in the Tapacito-Pictured Cliffs Gas Pool beyond April 1, 1957, and that the Commission by Order No. 794-A dated April 5, 1957, and R-794-B dated September 9, 1957, extended the duration of Order No. R-794 until April 1, 1958, in order to allow Southern Union Gas Company more time in which to compile additional information concerning the Tapacito-Pictured Cliffs Gas Pool.

(4) That Southern Union Gas Company has failed to prove that the Tapacito-Pictured Cliffs Gas Pool can be efficiently drained on a 320-acre spacing pattern.

(5) That the Tapacito-Pictured Cliffs Gas Pool can be efficiently and economically drained on a 160-acre spacing pattern.

(6) That the drilling and spacing of wells in the Tapacito-Pictured Cliffs Gas Pool should be governed by Rule 104 of the Commission Rules and Regulations.

IT IS THEREFORE ORDERED:

1. That paragraph (1) of Order No. R-794 which created the Tapacito-Pictured Cliffs Gas Pool shall remain in full force and effect and that paragraphs (2) through (11) inclusive be and the same are hereby superseded.

2. That all wells hereafter projected to or completed in the Tapacito-Pictured Cliffs Gas Pool shall be drilled, spaced, and operated in conformance with Rule 104 of the Commission Rules and Regulations.

3. That this order shall become effective on April 1, 1958.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

MURRAY E. MORGAN, Member

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

S E A L

ir/

[illegible] Proration Case (Retroactive Allowable estimate)

	No. of Ac. Factors	Pool Del.	Pool Prod.	Pool Ac. All.	Pool AD All.	Pool Ac. All. Factor	Pool A.D. All. Factor	All. for well [illegible]
[illegible] 1957	38	54912	709993	177378	532119	4667.73	9.6903985	563.07
[illegible] 1957	41	57250	1063902	265959	797551	6419.17	13.9310 21	7877
[illegible] 1957	49	53004	936920	234230	702690	5323.90	12.11 4509	6534
[illegible] 1957	49	57444	1022288	255572	775716	5215.75	11.5016 30	6365
[illegible] 1957	49	67944	806778	210694	605084	4299.87	8.97 1650	5116
[illegible] 1957	52	70097	643473	160868	452609	3093.61	6.5548 02	3251
								35374

Corrected Recap

[illegible] 1957	37	54412	687689	171922	515767	[illegible].26	9.39 [illegible] 438	[illegible]
	41	[illegible]	834410	[illegible]	629307	[illegible]	11.03 [illegible]	[illegible].69
	44	58005	703886	[illegible]	529314	[illegible]	9.[illegible]	[illegible]
	49	67445	793,967	[illegible]	[illegible]	4048.66	8.82 [illegible]	[illegible]
	49	67445	630,503	[illegible]	[illegible]	3216.08	[illegible] 7638	[illegible]
	52	70098	[illegible]	148719	[illegible]	2859.98	6.2[illegible]4746	[illegible]
			4216220					[illegible]
[illegible]	[illegible]	58993	[illegible]	[illegible]	3184765	[illegible]780.84	53.788863	[illegible]
Difference								[illegible]

			50.41		55.95
Oct. 57	96.44	[illegible].52	47.70	[illegible]	55.78
Nov. "	[illegible]	49.62	36.20	[illegible].35 / 3 =	39.11
Dec. "	49.47	[illegible]	32.70	107.04 / 3 =	35.68
Jan. 58	30.13	[illegible]	29.94	96.40 / 3 =	32.13
Feb. "	21.59	36.87	19.65	75.38 / 3 =	25.12
Mar. "	26.80	33.93			
	293.77 / 6 = [illegible]	225.33 / 6 = 37.55	212.30 / 6 = 35.38		

[illegible] St. [illegible] allocation [illegible]

Corrected allowable per [illegible] - Florence #1

[illegible] Ad. = 1312

25,780.84 + 1312 X 53.988863 = 96,613.
70,833

Production 145,032
Florence #2 allowable 53,013 Prod. 85,063

PACIFIC NORTHWEST PIPELINE CORPORATION
SALT LAKE CITY, UTAH

MAIN OFFICE OCC
1958 JUL 7 AM 8:41

July 1, 1958

REPLY TO:
P. O. BOX 1526
SALT LAKE CITY 10, UTAH

7-15-58

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Gentlemen:

In accordance with Rule 30 of Order R 1193 setting up proration in the Tapacito Pictured Cliffs Pool, Rio Arriba County, New Mexico, there is attached a list of the wells connected to Pacific Northwest Pipeline Corporation in this pool as of July 1, 1958.

Yours very truly,

L. G. Truby Jr.

L. G. Truby, Jr.
General Manager of Production

LGT:br
Attachment

cc: Mr. E. C. Arnold
New Mexico Oil Conservation Commission
Aztec, New Mexico

cc: Mr. George H. Peppin
Pacific Northwest Pipeline Corporation
Farmington, New Mexico

TAPACITO PICTURED CLIFFS POOL
PACIFIC NORTHWEST CONNECTIONS

Well Name and Number		Location U.	S.	T.	R.
El Paso Natural Gas					
San Juan 27-5	No. 18	K	36	27	5
Magnolia Petroleum					
Jicarilla B	No. 1-19	M	19	26	3
Jicarilla B	No. 3-20	M	20	26	3
Jicarilla B	No. 5-20	A	20	26	3
Jicarilla C	No. 1-7	M	7	26	3
Jicarilla C	No. 3-8	H	8	26	3
Northwest Production Corporation					
E Unit	No. 1-33	N	33	26	3
E Unit	No. 2-33	H	33	26	3
E Unit	No. 3-34	N	34	26	3
E Unit	No. 5-28	M	28	26	3
E Unit	No. 7-28	B	28	26	3
N Unit	No. 1-8	L	8	26	4
N Unit	No. 3-5	L	5	26	4
N Unit	No. 5-6	L	6	26	4
N Unit	No. 6-7	A	7	26	4
N Unit	No. 7-8	A	8	26	4
N Unit	No. 9-6	H	6	26	4
N Unit	No. 11-7	D	7	26	4

El Paso Natural Gas Company

MAIN OFFICE OCC
1958 JUL 7 AM 8:40

El Paso, Texas

July 1, 1958

New Mexico Oil Conservation Commission
Box 871
Santa Fe, New Mexico

Gentlemen:

In accordance with Rule 30 of Order R 1193 setting up proration in the Tapacito Pictured Cliffs Pool, Rio Arriba County, New Mexico, there is attached a list of the wells connected to El Paso Natural Gas Company in this pool as of July 1, 1958.

Yours very truly,

D. H. Rainey
Proration Department

DHR:br
Attachment

cc: Mr. E. C. Arnold
New Mexico Oil Conservation Commission
Aztec, New Mexico

TAPACITO PICTURED CLIFFS POOL
EL PASO CONNECTIONS

Well Name and Number		Location U.	S.	T.	R.
Clark-Cowden					
Federal	No. 1-11	B	11	25	3
Federal	No. 2-11	K	11	25	3
El Paso Natural Gas					
San Juan 27-4	No. 6	M	31	27	4
San Juan 27-4	No. 8	N	32	27	4
San Juan 27-4	No. 9	N	33	27	4
San Juan 27-4	No. 10	G	32	27	4
San Juan 27-4	No. 12	M	30	27	4
San Juan 27-5	No. 20	A	35	27	5
San Juan 27-5	No. 27	M	26	27	5
Gunsight Butte Uranium					
Florance	No. 1	C	4	25	3
Florance	No. 2	A	5	25	3
Ruddock	No. 1	B	3	25	3
Pan American Petroleum					
Fred Phillips Gas Unit A	No. 1	A	10	25	3
Fred Phillips Gas Unit B	No. 2	K	10	25	3
Fred Phillips Gas Unit C	No. 1	H	15	25	3

Proration Department
July 1, 1958

	Oct	Nov	Dec	[illegible]	Ja[illegible]	F[illegible]	Mar
	[illegible]	[illegible]	43	1573	[illegible]	[illegible]	8430
	[illegible]	511	547	+205	4[illegible]	[illegible]	1571
	-0-	-0-	1655	+141	2366	127	-0-
				173	759	[illegible]	1417
				22	-4147	[illegible]	2378
	57[illegible]	-0-	4[illegible]2	+7542	2577	[illegible]271	6604
	73 711	[illegible]	[illegible]	+2274	[illegible]	289	25539
						1290	[illegible]
	-0-	-0-	-0-	8939	83482	21696	40721
	36,826	4,3601	5,801	1312	12,347	44,568	31889
	16,426	24,394	2498	568	6,258	22535	15952
			7[illegible]	416 [illegible]	-0-	[illegible]	7958
	[illegible]	[illegible]	[illegible]8	1657	13721	1783	13564
	6461	6479	[illegible]	-880	1137	4253	10467
	4[illegible]77	5[illegible]	[illegible]	-1732	55074	47635	51174
	3751	3275	2433	-365	4927	3173	576
	[illegible]	-0-		4[illegible] EST	-0-		-0-
	[illegible]	7324	7[illegible]7	-274	2024	1051	223
	[illegible]	[illegible]	[illegible]	192	3255	3051	-0-
	-0-	-0-	-0-	431	10761	925	2966
	-0-	-0-	-0-	3352	2[illegible]	1207	-0-
	276	-0-	-0-	726	-0-	-0-	-0-
	-0-	-0-	-0-	120 EST	-0-	-0-	1912
	1[illegible]	[illegible]	5477	775	5573	14697	17624
	5977	6266	4722	396	6717	4[illegible]	209
	[illegible]			406	-0-	37	324
X	0	8439	3[illegible]54	741	7[illegible]	57[illegible]	2789
	0	0	[illegible]	605	1[illegible]	10751	8[illegible]4
	[illegible]	[illegible]	[illegible]	2280	[illegible]	2913	5364
	12,73	13723	[illegible]	-1[illegible]	2177	7941	7616
	[illegible]	[illegible]	[illegible]	-2731	51662	37541	8607
	2[illegible]	4[illegible]	4[illegible]	[illegible]	[illegible]	27717	15477
	[illegible]	[illegible]	[illegible]	137	[illegible]	17173	327
	[illegible]	32702	[illegible]	[illegible]	[illegible]	2647	2340
	1[illegible]	[illegible]	[illegible]	-1395	[illegible]	17230	13132
	13[illegible]	22571	[illegible]	-1347	[illegible]	[illegible]	21524
		[illegible]	[illegible]	-367	[illegible]	[illegible]	2485
	[illegible]	[illegible]	[illegible]	-1136	[illegible]		3017
	[illegible]	[illegible]	[illegible]	-487	13[illegible]	[illegible]	-0-
	[illegible]3[illegible]		2[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	1321	[illegible]	[illegible]	17516
		11[illegible]	[illegible]	[illegible]			[illegible]

57

	Dec	[illegible]		J	F	M	[illegible]	No.	No.
25	[illegible]43	1503		[illegible]	[illegible]	[illegible]	46621	[illegible]	
571	548	+205		461	[illegible]	1571	6203	6	
-0-	1635	+149		2366	129	—	4[illegible]	3	
		173		759	[illegible]	1417	37[illegible]	3	
		22		-41[illegible]	[illegible]	2579	10[illegible] 161267	3	
—	45402	+2042		2579	[illegible]	[illegible]	(161267)	5	
410	24166	+2274		—	299 ~~1280~~	[illegible]39 ~~361~~	113665	5 2	
—	0	8989		83482	21696	40721	145899	3	
601	5801	1312		12,347	44,568	31879	145,032 ~~[illegible]~~	1	
~~394~~	~~2498~~	565		6,258	22,535	1[illegible]	75,003 [illegible]	6	
—	7246	410 Est.		-0-	[illegible]	7152	25370	3	
[illegible]	14218	+1057		13724	7983	13564	19[illegible]36	6	
79	5122	+880		11137	4233	10067	23055	6	
57	52978	+9732		3204	47630	51174	305950	6	
73	2433	+365 ~~422~~ Est.		4727	3173	[illegible]96	16[illegible]	6	
	0			-0-	—	—	10724	1	
24	1519	~~274~~		2024	1231	223	7955	6	
736	4039	192		[illegible]	3051	-0-	29048	5	
—	0	431		10761	925	5766	14052	3	
—	0	3251		2387	1237	-0-	4066	2	
—	-0-	726		-0-	-0-	-0-	[illegible]	1	
—	0	120 Est.		0	[illegible]	1412	1412	1	
75	5497	995		[illegible]273	14647	17620	76793	6	
266	4723	396		6111	4[illegible]1	209	53306	6	
—	[illegible]	406		-0-	37	324	[illegible]920	4	
139	3554	941		7[illegible]	57[illegible]	[illegible]	31[illegible]	[illegible]	
—	[illegible]312	605		1[illegible]	1[illegible]51	[illegible]	[illegible]	[illegible]	
[illegible]0	[illegible]	2280		[illegible]	[illegible]3	[illegible]	112[illegible]5	6	
23	22890	-1177		[illegible]7	9[illegible]	[illegible]	[illegible]	6	
[illegible]	57[illegible]1	-3131		51[illegible]	[illegible]	[illegible]	[illegible]	6	
707	42029	[illegible]		[illegible]	297[illegible]	[illegible]	[illegible]	6	
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	6	
702	7301	1281		[illegible]	[illegible]	[illegible]	28313	6	
[illegible]	33721	-1395		[illegible]	11922[illegible]	[illegible]	[illegible]	6	
71	13732	-1307		[illegible]	[illegible]	[illegible]	[illegible]	6	
[illegible]	[illegible]	-367		[illegible]	[illegible]	[illegible]85	[illegible]	6	
69	14972	-1136		[illegible]3		[illegible]	[illegible]	6	
[illegible]	11773	-187		13[illegible]	[illegible]	-0-	44[illegible]	5	
[illegible]	27[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	6	
[illegible]2	11207	1321		[illegible]	[illegible]	[illegible]	[illegible]5	6	
[illegible]2	5017	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	

	[illegible]	[illegible]	[illegible]	+17[illegible]	[illegible]	[illegible]	323[illegible]
	[illegible]	[illegible]	[illegible]	-[illegible]	[illegible]	[illegible]	59284
	[illegible]	[illegible]	[illegible]		[illegible]	17[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	+221	[illegible]	[illegible]	4635
	[illegible]	1967	[illegible]	-575	[illegible]	4627	12679
	[illegible]72	57401	43318	-3966	[illegible]	24557	5351
				1221 Est			6790
	[illegible]791	[illegible]	[illegible]283	-1877	32781	30646	37021
	5786	6708	[illegible]	-374	[illegible]	4752	4808
	1612	12266	-0-	1443	11376	15692	-0-
	1796	16552	14577	1140	17132	11904	792
	—	12077	34477	9844	24205	19807	22009
	701,393	1,063,402	9,3692[illegible]		12,33286	1,06,776	643473
Pool [illegible]	54,912	57,250	55,004		67,444	67,449	70,097
Pool [illegible]	38	41	44		49	49	52
	687629	836410	703886		793407	630353	59487[illegible]

EPNG-126857 EPNG-146,001 EPNG-90621 SPNG-147901 SPNG-131209 SPNG-14245[illegible]

SU -263122 SU -458434 SU 426596 SU -409307 SU 353551 SU 373025

PNP -237713 PNP-222275 PNP 123477 PNP-146107 PNP 145359 PNP-79370

[illegible] 94 / 52169 / ([illegible])	+1734 / -5520	[illegible]	17[illegible]	[illegible]	[illegible]	6
5765	221					
11944	-575	[illegible]	[illegible]	[illegible]	14391	6
~~43318~~	~~3960~~ 1221 EST	~~[illegible]~~	58621 / ~~[illegible]~~	1[illegible]77 / 5351	59617 / ~~[illegible]~~	6 / 2
~~28483~~	~~+1877~~	~~32781~~	~~30646~~	6770 / 37121	6770 / 1[illegible]7	1 / 6
~~6952~~	~~+394~~	6670	4752	4[illegible]	3[illegible]796	6
~~-0-~~	~~1443~~	~~11376~~	~~15642~~	~~-0-~~	~~40992~~	4
74579	1140	17132	11904	792	[illegible]2195	6
~~38497~~	9840	24[illegible]	17[illegible]7	22007	110683 (60685)	5
9,36920		10,22286	1,06,776	643473		~~54~~ 52
55,004		67,444	67,449	70,097		
44		49	49	52		
703886		793407	630353	594875	42(3)6620 (4)	

EPNG - 90829 SPR - 147931 SPR - 131269 SPR - 142459 SPR - [illegible]

SU - 426576 SU - 409369 SU - 353551 SU - 373[illegible] SU - 323391

PNP - 176429 PNP - 176147 PNP - 145569 PNP - 793[illegible] PNP - 135576

CASE RECORD FILE

1439

CASE [illegible]: CASE called by OCC to con- [illegible] of gas prorationing in the T[illegible]-Pictured Cliffs Gas Pool.

AZTEC OIL & GAS COMPANY
920 MERCANTILE SECURITIES BUILDING
DALLAS 1, TEXAS

QUILMAN B. DAVIS
SECRETARY AND GENERAL ATTORNEY

June 27, 1958

Re: Case No. 1439, Order No. R-1193

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

Gentlemen:

Southern Union Gas Company delivered to us a copy of its application dated June 26, 1958 requesting a rehearing of the subject case.

Aztec Oil & Gas Company concurs generally in the statements contained in this application and urges the Commission to grant applicant's request for rehearing in Case No. 1439.

Yours very truly,

AZTEC OIL & GAS COMPANY

Q. B. Davis

General Attorney

QBD/ha

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
May 14, 1958

IN THE MATTER OF: In the matter of the hearing called by the Oil Conservation Commission of New Mexico on its own motion to consider the institution of gas prorationing in the Tapacito-Pictured Cliffs Gas Pool in Rio Arriba County, New Mexico.	CASE NO. 1439

BEFORE:

A. L. Porter
Murray Morgan

TRANSCRIPT OF PROCEEDINGS

MR. PORTER: The meeting will come to order, please. If the cases on the docket aren't concluded this afternoon, we will reconvene in the morning at the Highway Commission Office at nine o'clock. This hall will not be available, and there is no available space for the hearing in the Capitol.

At the conclusion of Case 1439 we are going to take up the Southeast nomenclature case which shouldn't require more than ten minutes.

We will consider now Case 1439.

MR. PAYNE: Case 1439. In the matter of the hearing called by the Oil Conservation Commission of New Mexico on its own motion to consider the institution of gas prorationing in the

Tapacito-Pictured Cliffs Gas Pool in Rio Arriba County, New Mexico.

(Witness sworn.)

MR. COOLEY: Mr. Chairman, the Commission has called this case to show the various factors which come to bear in the Tapacito-Pictured Cliffs Gas Pool, which indicate that prorationing in that pool is immediately necessary

Our first and only witness will be Mr. Utz.

ELVIS A. UTZ

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

DIRECT EXAMINATION

BY: MR. COOLEY:

Q Will you state your name and position, please?

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

Q Mr. Utz, as engineer for the New Mexico Oil Conservation Commission, have you had an opportunity to make a study of conditions in the Tapacito-Pictured Cliffs Gas Pool?

A Yes, I have.

Q Would you tell me what the purpose of that study was, please?

A The purpose of the study was to inspect the production history and compare this with estimated allowables in order to determine how ratable the take had been comparing the production with a proration formula.

Q Can you briefly explain the manner in which this study was made?

A The study was made briefly as follows: The production was taken over a period of six months, from October through March, October '57 through March '58. The monthly production for the six month period was determined for each well in the pool for the period that that well was connected to a pipeline system. The allowable for each well for each month in which it was connected to a pipeline system was calculated on the basis of the 25/75 formula. This was based on each months production and the individual well deliverability and a hundred and sixty acres dedicated to each well. Actually, if I had used three hundred twenty acres, it would have made no difference in the results of the graph. This anaylsis was broken down by purchasers in the pool, of which there are three.

Q Mr. Utz, I now call your attention to a map which is posted on the bulletin board and which has been identified as Exhibit 1 in this case. Would you please explain the import of that map.

A Well, actually, it isn't very important. I think by now we all know where the Tapacito-Pictured Cliffs Gas Pool is and what the shape is, and that is the one thing it portrays. However, the other thing that I intended to portray with this exhibit is to show the locale in which the three different purchasers are purchasing. The red tinge is El Paso, which is here and here. The blue is Pacific Northwest, which is pretty well distributed,

the brown or orange tinge is the area in which Southern Union Gas is a purchaser. This is all I intended to show with this map, to show the distribution of the purchasers.

Q Mr. Utz, in making this study, did your findings reveal that had allowables been assigned in the Tapacito-Pictured Cliffs Gas Pool, that the takes would have been ratable during the past six month period?

A In a very few instances it showed that allowables were comparable to what the production was, but in the majority of the cases, it showed an unratable take, comparing it with the formula.

Q Have you prepared a graph to further exhibit this fact?

A Yes, I have.

Q I call your attention to what has been marked as Exhibit 2 and ask you to explain that, please.

A Exhibit two is the long graph which is on the wall here. As previously explained, this study was broken down by purchasers in the pool to determine how ratable the takes were as between purchasers and also how ratable the takes were between wells on each purchasers system. The first purchaser is El Paso, the second is Southern Union, and the third one on the end is Pacific Northwest. The orange dots which you see scattered along the graph are -- First, I better explain that the vertical axis is in volume of million cubic feet per day, the horizontal graph under each purchaser is deliverability and MCF per day, so this is a comparison between volume and deliverability.

Q Mr. Utz, let me interrupt. You said the vertical scale was a million cubic feet per day?

A A million cubic feet for the six months. That's the total gas produced for each well whether it was on the line for one month or six months. The orange dots show the total production for six months on each individual well. The green dots show the calculated allowable which was calculated by months for each individual well on the basis of the 25/75 formula.

Q At this time, Mr. Utz, let me interrupt you. Is the 25/75 formula the gas proration formula which is applicable to all prorated gas pools in Northwestern New Mexico?

A All six prorated gas pools use that formula.

Q And you, therefore, have compiled what would have been the allowable on the past six months based on the well's deliverability and the acreage dodicated thereto, had the pool been prorated during that period?

A That is exactly right, for the period that the well was connected to the pipeline. Now, the test of whether or not the take was rateable is simply by comparing the distance -- the vertical distance between the red and the orange marks or dots on this scale.

Q Green and the orange, isn't it, Mr. Utz?

A The green and the orange, yes.

Q Now, is there both a green and orange dot for each well, the orange representing the actual production and the green the

allowable it would have been assigned had the area been prorated?

A That's right, indicates the total production for the time the well was on the line. It is plotted at about fifteen hundred MCF, which would indicate the well's deliverability by test, test in conformance with Order 333 C and D. The green dot you will notice directly above the orange dot, which indicates what that well's allowable would have been had the pool been prorated for that six months.

Q Then it would appear that the operator would have been discriminated against for not having been allowed to produce the amount of gas?

A Yes, this particular well, which has fifteen hundred deliverability, would have received an allowable of something over a hundred million, just slightly over a hundred million whereas he actually only produced about forty-seven million for the month -- for the period, which indicates that it underproduced substantially. Wherever the orange dot is over the green dot, it indicates that the well overproduced from what it should have produced in order to be rateable, according to the formula.

Q Mr. Utz, do all the wells prorated on Exhibit No. 2 have the capacity to produce the allowables which you have plotted thereon?

A There is a possibility that some of the wells in the lower category here -- I made no attempt to determine what the marginal wells would have been. There is a possibility that some of the wells

in the extreme lower scale here might be marginal wells, had I gone to the trouble to determine whether or not they could produce.

Q In your opinion, for the most part, the majority of the wells would have been capable of producing the allowable assigned thereto?

A Taking the pool as a total, the wells in the pool are capable of producing more gas by far than they did. By far, the majority of the wells in the pool are capable of producing more gas than they actually produced for the period.

Q Then the major limitation on the amount of gas which is produced from each well was not capacity of the well, but the amount of gas which the purchaser deemed to purchase therefrom during that period?

A I presume it was determined to purchase that much gas. I don't know whether or not the well was shut in or whether the lines froze up, or what the reason was, but whatever the reason was, this shows whether or not it produced its allowable. The test, as I started to explain a while ago, is the distance -- vertical distance between the red and orange dots for each well would indicate whether or not the well had been produced rateably, according to the formula. Wherever there are dots, such as this one on the left-hand side of the graph, which has deliverability of four hundred, it actually produced about twenty-five million, and its allowable was slightly over twenty-five million, which indicates it is very nearly rateable, according to the formula. Wherever there

is vertical spread between points would indicate to me that the wells had not been produced rateably.

Q This Exhibit 2 shows that it is more common for there to be a considerable vertical spread than there is -- what they allow if it had been produced, what their allowable would have been?

A Yes, either less or more. In most cases it was more.

Q Does Exhibit 2 also show graphically the production take by each of the three purchasers in that pool during the last six months?

A Yes, it does.

Q Would you explain that, please.

A Over on the right-hand side we have plotted what I call load factors. It is simply the amount of production that the well produced during each month as compared to what the well could have produced, according to its deliverability test.

Q Well, are all of the wells connected?

A All wells are connected to each system for that month. The upper system is El Paso, the green is Southern Union, and the bottom, or red bars, are Pacific Northwest. That simply shows a relationship between what the well could have produced, according to this test, and what it actually did produce, and as you can see for the month of January there was quite a bit of spread between the load factors in the -- or the month of October, rather -- between the load factors for that month as between pipelines.

Q Would that indicate -- excuse me, proceed.

A I wouldn't deem that as significant for that particular month. I think the thing that is shown is simply a point of information to show how the purchasers were purchasing, according to other purchasers in the field, and the load factors for the six months, I would say, is the thing that really counts. The upper pipeline produced an average load factor for the six months, and this is breaking it down by months, that is, the deliverability for each month and the production for each month of 48 percent load factor, and the other two were pretty close. Southern Union people produced a load factor of 37, and Pacific Northwest 35, which is closer than I expected to see. I would say that that is another indication of unrateable take between purchasers.

Q It could indicate, then, that a well connected to El Paso Natural Gas system would receive some 10 percent -- some 25 percent more production than would a well connected to either of the two systems?

A Well, its load factor was about 11 percent higher than the other two pipelines.

Q How would an average El Paso connection compare with the production from the average Southern Union or Pacific Northwest connection?

A I don't believe I follow your question.

Q It would be some 20 percent higher, would it not?

A Yes, it would be about 20 percent higher in comparison.

Q Mr. Utz, has your study also determined that the capacities

of the wells in the Tapacito-Pictured Gas Pools are, for the most part, in excess of the market demand for those wells?

A Yes. The calculated deliverability for the pool as of the end of March was 70,000,000,098, while the highest production for any month during the period was twenty-five million, which is quite a spread between the wells' ability to produce and what they actually did produce.

Q Now, Mr. Utz, do you feel that the variation of rateable take or the variation from rateable take in the pool combined with the fact that the capacity of the wells are in excess of market demand warrants the immediate proration of that pool?

A Yes, I think it does. One reason I think it does is simply because, as we can see, the wells have not been produced in accordance with any plan or formula, and there is no -- therefore, each well as of the end of the six months' period is, so to speak, out of balance, and there is no way that I know of of getting those wells back in balance except by prorationing. There is no proration at this time, and since there is no proration at a --

Q Assuming that proration is to be established in the Pictured Cliffs Gas Pool, what proration formula would you recommend?

A Well, I would recommend the same proration formula that we use in the six other prorated gas pools in the San Juan Basin. The reason for recommending that is simply because I see no great difference in the Tapacito Gas Pool and the other Pictured Cliffs Pools up there, and I think if it is a reasonable formula for the

other Pictured Cliffs Pools, it is certainly a reasonable formula for this pool.

Q Would you go into the breakdown of that formula in more detail, please?

A Well, it is 25 percent acreage plus 75 percent deliverability times acreage. The actual breakdown and explanation of the formula is quite a bit detailed. I think most people here are pretty familiar with it.

Q How long has prorationing on that basis been in operation in Northwestern New Mexico on the other pools?

A Since March the 1st, 1955 on all except the Ballard Pictured Cliffs, and I believe it was August the 1st or October the 1st, '56.

Q Then you have had an opportunity to observe prorationing in Northwestern New Mexico, under that plan for some three years?

A That's true.

Q And have you closely observed the operation of this system?

A Yes, I have.

Q Has it been your personal responsibility to supervise most of this prorationing of gas in Northwestern New Mexico?

A Yes, in the main. Yes, it has.

Q Can you give me an opinion as to what you feel the success of this system has been and the equitable nature of the system or formula during this three year period?

A Well, of course, after you decide on the formula -- the formula is going to do what you think it ought to do, the only comparison you can make from then on is what the wells in the pool have done in accordance with the formula.

Q In your opinion, has this formula afforded each operator in those six prorated gas pools an opportunity to recovery his just and equitable share of the gas in place in those pools?

A I think it has, as near as it is possible to do so.

MR. COOLEY: That concludes our case, Mr. Examiner.

A I have some further recommendations I wish to make. In addition to the recommendation for a formula, I would also recommend that an order be written to instigate proration as of August the 1st, 1958 identical to the pool rules and orders of all other Pictured Cliffs Gas Pools, with the exception of spacing. I leave spacing out of this simply because as everyone knows, at this point the spacing has not been determined, and I don't think I am the one who should sit here and determine it.

Q (By Mr. Cooley) Mr. Utz, it would be your recommendation, would it not, that a proration unit be established in the Pictured Cliffs Gas Pool the same size as the spacing unit which is to be determined by the Commission as the result of the hearing just concluded in Case 977?

A Yes, it certainly would. Further, I recommend that the Commission call for preliminary nominations for the June 18th hearing, 1958.

Q When would those have to be in to the Commission?

A They should be in to the Commission by at least the 15th of June.

Q Do you have any further recommendations in this case, Mr. Utz?

A No, I don't believe I do.

MR. COOLEY: That is all.

CROSS EXAMINATION

BY MR. PORTER:

Q Mr. Utz, do you have sufficient deliverability tests at the present time to institute prorationing on those wells?

A Yes, sir. Incidently, that brings out the point which I probably should have mentioned. In the 51 wells shown on the map, there are three estimated deliverabilities, and that is all. Those are estimated on the basis of initial potentials.

Q You have the deliverability for 48?

A That's right.

MR. PORTER: Anyone have any questions of Mr. Utz?

MR. GRENIER: Yes, sir, we have a few.

QUESTIONS BY MR. GRENIER:

Q You wouldn't be proposing to make any correction in the future for any past inequalities that might have occurred prior to the institution of this prorationing, would you, Mr. Utz?

A No, I don't think it would be possible to do that. That's why I say we should have prorationing now, because we have no assurance that this well will be brought back in balance.

Q I was quite sure that is what you intended to imply. You

stated that you saw no difference between the Tapacito and the other Pictured Cliffs Pools. Is that with respect to any of the aspects of the pool or merely with respect to those features of pools which, in your opinion, has some bearing upon what the proration formula should be that is prescribed for the pool?

A Well, what I indicated and what I meant to indicate was that from a geological standpoint, there is not too much difference between this pool and any other Pictured Cliffs pool. It has certain irregularities, it has certain reserve ratios as between tracts in the pool, the same as the Ballard,Fultcher-Kutz, West Fultcher-Kutz, or any of the others. As far as the permeability and the spacing question is concerned, I don't know.

Q You are not by indirection --

A Indicating how much acreage one well will drain?

Q Yes.

A No, sir.

Q Now, you said that you suggested that the proration unit should be the same as the spacing unit established in 977. Would that recommendation also go to the spacing unit established in 977, that it should be the same as the proration unit established here, does that work both ways?

A As I visualize it, it should work both ways. Your spacing unit is your proration unit.

Q Would you see any objection to doing substantially what has been done in Lea County and which was to some extent touched on

this morning in a statement by Skelly and one on behalf of El Paso Natural, where they were suggesting that if a hundred and sixty-acre spacing were adopted, that anyone who wanted to drill on 320 might, on optional basis, dedicate, in effect, double acreage to the well and thus get a double allowable, or if it were spaced on 320 acres as the proration unit, that anyone who wished to develop on 160 could do so and take a half allowable as to such a well?

A Personally, my opinion ~~is that~~ that is the way to handle the matter. I don't see any objection to multiple spacing in a gas pool or any other pool, for that matter.

MR. GRENIER: Thank you. That concludes our questions.

QUESTIONS BY MR. HINKLE:

Q Mr. Utz, have you made a study of this particular pool to see whether any other proration formula other than this 25/75 formula would be better applicable to the conditions in this pool?

A I have only made a study in a general way, and the only study I have made on this pool is what you see here on this graph, Mr. Hinkle. Here is a horizontal line indicating ninety-five million a hundred twenty-six MCF for the six months, and that is the straight acreage allocation curve, if I had calculated the allowable on stright acreage. Now, it is not very difficult to see that if you used straight acreage on this pool, that you would have, by counting these dots underneath this line, you would have 37 marginal wells out of 91 to start with, and actually you would have a few more than that, because this line, when you made marginal

wells out of these, which they would be marginal wells by virtue of the fact they would receive more allowable than they could produce on a straight acreage formula. You would have to take that amount of gas and give it to the wells below this line, which, of course, would raise this line somewhat and cause a few more wells on the top of the line to become marginal. You would have to increase their allowable or else lower the demand for the pool, so I don't think that any formula which would make 37 out of 51 wells marginal at the beginning of prorationing would be a very good formula to use in a pool.

Q Would it make any difference as far as the low deliverabilities were concerned, whether or not they be permitted to produce more gas?

A They would be on a 100 percent deliverability and what all of these 37 would be, they wouldn't be straight acreage, they would have 100 percent deliverability, all they could produce.

Q The straight acreage, then, would take in some of the deliverability factors?

A I think you take deliverability in a straight acreage formula because you recognize the fact that some wells can't make the allowable, so you put them on 100 percent deliverability, and you recognize the fact that because these wells can't produce it, that you have to give it to wells that can produce it, so you give it to wells that can produce it.

Q Then, you did, to some extent, take that into consideration in recommending 25/75?

A Yes, I did, but I used the 25/75 for the purpose of making this graph simply because it was used up there, and I figured it would be used in this pool and it looks as good as any to me.

MR. HINKLE: That's all.

MR. PORTER: Anyone else have a question of Mr. Utz? Mr. Mankin.

QUESTIONS BY MR. MANKIN:

Q Warren Mankin with Aztec. Mr. Utz, I notice you mentioned something about the marginal nature aspects. To begin with, would it make any difference what line pressure is carried by the pipelines, whether it has greater capacity in the marginal well?

A It sure would.

Q It is true that one company carries a lower pressure than the other two?

A It is my understanding that the El Paso line pressure out there is in the neighborhood of 250, while the other two are around 500 pounds.

Q Would that have some significance on El Paso having less marginal wells producing to begin with, than the others?

A Certainly would.

MR. PORTER: Anyone else have a question? If not, the

witness may be excused.

(Witness excused)

MR. COOLEY: Mr. Examiner, at this time I would like to move that all testimony which has been offered in Case 977 in regard to the proper size of the drilling unit in the Tapacito Pictured Cliffs Pool be incorporated by reference in this case for purposes of determining the proper size of the proration unit since, as a matter of necessity, it must follow that that proration unit must be the same size as the spacing unit.

MR. PORTER: Is there objection to Mr. Cooley's motion? It will be done.

Mr. Cooley, I don't believe you offered your exhibits.

MR. COOLEY: We would like now to offer formal Exhibits 1 and 2 in this case.

MR. PORTER: Were they prepared by Mr. Utz?

MR. COOLEY: He testified they were.

MR. PORTER: Without objection, they will be admitted.

Does anyone have testimony to present in the case?

MR. GRENIER: We do. Mr. Wiedekehr will be our only witness.

E. WIEDEKEHR,

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

DIRECT EXAMINATION

BY MR. GRENIER:

Q Mr. Wiedekehr, you've heard the testimony of Mr. Utz

just now, and he indicated that one of the reasons he thought prorationing in the field was necessary at this time was because the three pipeline companies are taking gas at varying line pressures. Does that indicate to you a situation, such as Mr. Utz interpreted it to be, one that calls for prorationing at this time?

A Yes, it does.

Q How about these varying load factors? Do you agree with his conclusions there also?

A I think there is no doubt that when you have varying load factors among pipeline companies, that to take equitably from the wells within the field, some prorationing would be necessary.

Q It might be possible, of course, for the companies themselves simply to get together and agree to take on a rateable basis, wouldn't it?

A That is possible, but not practical.

Q Do you think it would work better if the Commission were administering the program than if it were purely a voluntary one?

A I sure do.

Q Do you see any indications here that there is a greater market -- I mean a lesser market demand in the Tapacito Pictured Cliffs Pool than the deliverability capacity of these wells?

A Yes, there is definitely less demand than capacity.

Q Now, turning to the matter of the prorationing formula, do you

have any recommendations to make to the Commission in this regard, Mr. Wiedekehr?

A Well actually, as in the past, cases that have been heard on northwest New Mexico and southeast New Mexico proration hearings, it is Southern Union's opinion that the 75 percent factor for deliverability is a little bit on the high side. We don't feel like there is quite that much relationship between deliverability and reserves, but in view of the fact that this is a better than average field insofar as capacity of the wells is concerned, and because the deliverability seems to follow pretty well the trend of thicker sand sections, which is actually a criteria for reserves, we would not object to the formula that has been used in the past. We are not necessarily saying that we are agreeing with it, but we can't find any great fault with it and would not object to the continuance of this same formula in the Tapacito Field.

Q Now, supposing we come up with a 320-acre prorationing and building unit for this pool; you would think that the two units should be the same, I assume, Mr. Wiedekehr?

A I think think they should, although I can see where it could be worked where the two units were different because that so happens in southeast New Mexico.

Q Well, supposing that we had a 320-acre unit for prorationing, what would you recommend should be embodied in the order with respect to a person who wanted to drill two wells on a 320-acre tract, if there were any such persons?

A We would recommend, of course, that each well that was drilled be drilled on the 160 acres and that each well be given an allowable on a half acreage unit, or as the reserves might be, two to one. In other words, a 160-acre well would get half the allowable of a well on 320, providing the deliverability were identical.

Q Now, if it came out that the prorationing unit established by the Commission were a hundred and sixty acres, would you recommend that a multiple acreage factor be permitted to be assigned to a well as suggested by Mr. Utz?

A Yes. I feel that that would partially solve the problem that exists, and that if an operator so desired, he should be allowed to assign to two units or 320 acres to a well.

Q You are not suggesting that they should be permitted here, as in southeastern New Mexico, that 640-acre be assigned?

A I doubt that that would be wise. Wouldn't recommend it.

Q Now, assuming again 320-acre spacing, what would you recommend the unit to be with respect to the standard sections which we have here through this area?

A Don't think it would make any difference, either north half or east half; south half or west half.

Q Again assuming 320-acre spacing, what would your recommendation be with respect to the location of wells within the proration units themselves?

A Would recommend that they be in the southwest and north-

east quarters respectively of the sections, located 990 feet at least from the boundary line with the tolerance due to terrain, and that exceptions be granted for the wells that have previously been drilled in unorthodox locations, that is, locations not confirming to this pattern, and that any future requests for unorthodox locations outside of terrain reasons should be handled by hearing.

Q What would your recommendation be as to the balancing period? Do you feel that it should be the same as for the remainder of the San Juan Basin with six months' period starting February 1 and August 1?

A Yes. It would make it easy on our company as a pipeline company to operate if we had the same balancing period.

MR. GRENIER: That concludes our testimony unless you have something further to add.

A No, I don't think so.

MR. PORTER: Any questions of Mr. Wiederkehr? Mr. Hinkle.

QUESTIONS BY MR. HINKLE:

Q Mr. Wiederkehr, I wish you would refer to Southern Union's Exhibit No. 9 which was introduced in connection with Case 977. I understand, Mr. Wiederkehr, that this is a tabulation of reserves on producing wells connected to Southern Union Gas Company's system in the Tapacito Pictured Cliffs Field, and that these were based upon pressure decline curves which were also introduced in evidence.

A No, sir, Mr. Hinkle, these were based on microlog sand.

Q Your own?

A Microlog sand and on a recovery factor based on what I assumed the reservoir conditions to be.

Q Now, this tabulation shows that the Jicarella No. 3 of Honolulu produced, during the 365 period, 77.72 percent of the estimated reserves under 320, is that right?

A Yes, sir.

Q And in connection with Jicarella's "I" E of Southern Union, during the same period of time it produced almost a third of the reserve, 29.04?

A Yes, sir.

Q And the Jicarella "5" E produced 30.71 which is a little more than a third of the reserves?

A That's correct.

Q Now, do you anticipate that those wells will cease to produce when they have produced under this tabulation a hundred percent of their reserves?

A No, sir, I do not.

Q Now, if that is the case, where is the gas going to come from after they have reached a hundred percent, if this estimate is correct?

A Actually, the estimated reserves may be off due to the fact that some gas in it that, some amount of gas is coming out, No. 1 and No. 2, of course, is the fact that there will probably

be drainage between tracts as it always occurs.

Q Isn't that inherent in connection with the deliverability formula?

A It is inherent with any formula, but maybe a little worse with deliverability formulas.

Q To a greater extent in connection with deliverability --

A Yes, sir.

Q And this would tend to show it?

A Yes, sir.

MR. HINKLE: That's all.

QUESTIONS BY MR. MANKIN:

Q Mr. Wiederkehr, it was your recommendation a while ago that if this were alternate type spacing and 320 were approved and 120 were granted as alternate wells, that they be given a proper allowable according to their acreage. Would you likewise tie that particular allowable of those developed on 160 to the deliverability of the indivdual wells on that tract, rather than for either well?

A Yes, to either well.

MR. MANKIN: Thank you. That's all.

QUESTIONS BY MR. HINKLE:

Q Could you suggest any other formula other than that which has been suggested to the Commission by Mr. Utz that would come more nearly to protecting correlative rights so that the -- it would take the direct relationship to reserves in place?

A I have not studied this particular field in that light, but on other fields which I have looked at and have done considerable work on, I feel that prooably a deliverability allocation of some actually 35 to 50 percent would be the maximum that should be used. Of course, there is another formula that is very good. It might be a little better than that if we had a very homogenous sand, and that would be just acreage times bottom hole pressure.

Q Would you recommend that to the Commission at this time?

A No, sir, not in this area because of the fact that you do not get a true pressure in this field for a long period of time, as was discussed in the previous case. The five wells that we took shut-in pressures on were shut in some twenty-six days and actually, the last week of this twenty-six-day period, they still built up six or seven pounds during that time, and to get a true pressure, then, we would have to keep the field shut half the time, so that is not a very good formula for a field of this nature.

MR. HINKLE: That's all.

MR. PORTER: Anyone else have a question?

QUESTIONS BY M . COOLEY:

Q Mr. Nicholson, do you feel that the proration formula that has been proposed by Mr. Utz will allocate the allowables to the various wells in the Tapacito Pictured Cliffs Gas Pool more in proportion to the actual gas in place under those tracts than would a straight acreage formula?

A Yes, sir, I do. I don't feel that straight acreage is

a good allocation for gas production due to the fact that you do have such variation in thickness throughout the field. I have never believed in straight acreage for a gas field.

MR. COOLEY: That's all.

MR. PORTER: Anyone else have a question?

REDIRECT EXAMINATION

BY MR. GRENIER:

Q In response to Mr. Hinkle's question about how these wells that he mentioned come to produce such a large percentage of their reserve, would any portion of that apparentive production be possibly attributable to the fact that these wells were draining more than 320 acres? It could be that along with other factors?

A Yes, along with the other factors that I have mentioned.

RECROSS EXAMINATION

BY MR. MORRELL:

Q You stated in your recommendation, Mr. Wiederkehr, the spacing of northwest and southeast --

A Northeast and southwest, I believe.

Q Northeast and southwest?

A Same as the Mesa Verde Field.

Q Not following the northwest --

A I think the old one was northeast, southwest with some changes made due to wells that were previously drilled, but the correct location as the original Tapacito temporary order was based on was northeast, southwest, and we would recommend the continuation

of that.

MR. PORTER: Does anyone else have a question?

The witness may be excused.

(Witness excused)

MR. PORTER: Anyone else have testimony to present in the case? Any statements?

MR. DAVIS: I would like to make a statement for the record. Quentin Davis, Aztec Oil and Gas Company; Aztec concurs in the testimony put on by Mr. Utz and Southern Union and would recommend prorationing commencing August 1st in the Tapacito Pool and that the proration formula be as recommended by Mr. Utz, and that proration units be 320 acres.

MR. KELLAHIN: Jason Kellahin, for Gunsight Butte Uranium Corporation. In connection with the testimony of the size of the proration unit, it was suggested, I believe, as I understood the testimony, at least two alternatives; either to have a 320-acre spacing with the permission to drill two wells, or in the alternative, to have a 160-acre proration unit, with the opportunity to dedicate two units to the well. I think that under our statute the latter alternative would not be possible in that the statute requires the proration unit to be of such size and shape as may be efficiently and economically drained by the one well. There is no use, of course, in my going any further into the question of size of these units. In this case we do earnestly urge the Commission to adopt a proration unit consisting of 160 acres.

MR. HINKLE: If the Commission please, Humble would like to go on record as being in favor, of course, of the adoption of a 320-acre proration unit in this particular case, and believes that a straight acreage formula would be better than the deliverability formula which has been proposed of 25/75 and which is in effect in the other field in the northwest. It is very evident that a study has not been made, that is, a detailed study to see if there couldn't be a better formula derived than the one which is in force in the other pool, in the northwest, that would better protect correlative rights, and I think that is one of the duties of this Commission, to get a formula which will protect correlative rights, and due to the characteristics of this particular field, I think that some consideration ought to be given by the Commission to a change in that formula, if it is adopted, to give more consideration to the acreage factor.

MR. GREENER: I won't attempt to elucidate the obvious. We feel that one well will efficiently and economically drain 320 acres. We feel that either of the alternatives that have been suggested here are appropriate in that regard, but our preference and recommendations, of course, is that a 320-acre unit be established for both spacing and prorationing purposes with half allowables to be given to wells drilled on 160 acres.

MR. PORTER: Anyone else have anything further?

MR. PAYNE: Mr. Commissioner, I have here a statement to read for El Paso Natural Gas Company. Because of the need for

Austin prior to the termination of this hearing, it is requested that the following statement be entered on El Paso's behalf in Case 1439. El Paso Natural Gas recommends the adoption of 320-acre proration unit for the Tapacito Pictured Cliffs Gas Pool with proration formula identical to that utilized in other prorated picture cliffs pools in the San Juan Basin providing for allocation 75 percent times deliverability and 25 percent acreage. Signed, F. Norman Woodruff.

MR. UTZ: 75 percent.

MR. PAYNE: 75 acres times deliverability and 25 percent acreage.

MR. PORTER: Do you know what he meant, Mr. Utz?

MR. UTZ: Yes, sir.

MR. PORTER: Anyone have anything further?

MR. COOLEY: I have a few closing remarks. I, at the outset, would have to concur on this proration unit with Mr. Kellahin, but I do not believe the statute in the State of New Mexico would permit the creation of a proration unit and spacing unit of 160 acres and then permit the dedication of two 160-acre units to one well. I believe inherently in the finding that 160 acres is the area that one well will efficiently and economically drain, and there must be a finding that it will not drain substantially in excess of that acreage efficiently and economically. Consequently, I feel that the statute would prohibit dedication of more than 160 acres to a well in the event the Commission finds that 160

acres is the area which one well will efficiently and economically drain in the Tapacito Pictured Cliffs Gas Pool.

Secondly, I would like to take issue with Mr. Hinkle's remarks that obviously no study has been made as to the accuracy of the proration formula based on 75 percent times acreage in northwestern New Mexico. Mr. Utz' uncontroverted testimony was that he had personally supervised proration in northwestern New Mexico for a period of three years under that formula, and that in his expert opinion -- he has been more closely associated probably than any other official in this state -- feels that that formula has afforded to each owner in northwestern New Mexico in these six prorated gas pools the opportunity to recover his just and equitable share of the gas in place in those pools. Consequently, I would recommend that the Commission adopt the 75 percent deliverability times acreage plus 25 percent acreage proration formula in the Tapacito Pictured Cliffs Gas Pool.

MR. GREMIER: I don't understand, Mr. Cooley. Did I understand Mr. Cooley to be making a recommendation at this time whether one well will efficiently and economically drain --

MR. COOLEY: There is no comment whatsoever.

MR. GREMIER: This is just if --

MR. COOLEY: My point is that in the event they do determine that the area which one well will efficiently and economically drain is 160 rather than 320, the statute would prohibit the dedication of any acreage substantially in excess of 160, in

excess of 320.

MR. WIEDERKEHR: How did you get by in Lea County?

MR. COOLEY: I don't choose to argue that. I assume you are referring to the Jalmat and Eumont Pools. In both instances, the Commission has determined one well will efficiently and economically drain 640 acres.

MR. PORTER: Anything further? We will take the case under advisement.

C E R T I F I C A T E

STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLO)

I, J. A. TRUJILLO, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Proceedings before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me and/or under my personal supervision, and that the same is a true and correct record to the best of my knowledge, skill and ability.

WITNESS my hand and Seal, this, the 21st day of May, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. Trujillo
Notary Public

My Commission Expires:

October 5, 1960.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

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

CASE NO. 1439
Order No. R-1193

THE APPLICATION OF THE OIL CONSERVATION
COMMISSION UPON ITS OWN MOTION FOR AN
ORDER INSTITUTING GAS PRORATIONING AND
PROMULGATING RULES AND REGULATIONS FOR
THE TAPACITO-PICTURED CLIFFS POOL IN SAN
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 14, 1958, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 10th day of June, 1958, the Commission, a quorum being present, having considered the evidence adduced and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That by Order R-794 and subsequent orders, the Commission created, defined, and extended the Tapacito-Pictured Cliffs Pool for the production of gas from the Pictured Cliffs formation.

(3) That the producing capacity of the gas wells in the Tapacito-Pictured Cliffs Pool is greater than the market demand for gas from said pool and that, for the purpose of preventing waste and protecting correlative rights, appropriate rules and procedures should be adopted to provide a method of allocating gas among proration units in the Tapacito-Pictured Cliffs Pool.

(4) That finding No. 3 and finding No. 4 of Order No. R-794-E regarding well spacing in the Tapacito-Pictured Cliffs Pool should be incorporated in this order by reference.

(5) That the proration unit for the Tapacito-Pictured Cliffs Pool should be a tract of 160 acres, more or less, substantially in the form of a square which comprises a legal subdivision (quarter-section) of the United States Public Lands Surveys.

IT IS THEREFORE ORDERED:

(1) That finding No. 3 and finding No. 4 of Order No. R-794-E be and the same are hereby incorporated herein by reference.

(2) That special rules and regulations applicable to the Tapacito-Pictured Cliffs Pool be and the same are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE TAPACITO-PICTURED CLIFFS POOL

Acreage Requirements for Drilling Tracts and Proration Units:

RULE 1. Any well drilled to the Pictured Cliffs formation within one mile of the boundary of the Tapacito-Pictured Cliffs Pool and not nearer to nor within the boundaries of another designated Pictured Cliffs pool, shall be spaced, drilled, operated, and prorated in accordance with the regulations in effect in the Tapacito-Pictured Cliffs Pool.

RULE 2 (A) Wells shall be drilled on a tract consisting of approximately 160 surface contiguous acres substantially in the form of a square which shall be a legal sub-division (quarter section) of the United States Public Land Surveys.

The acreage allocated to a gas well for proration purposes shall be identical with the drilling tract prescribed above and shall be known as the gas proration unit for the well.

Non-standard drilling tracts and proration units may be formed after notice and hearing or under the provisions of paragraph (B) of this rule. A non-standard unit shall be assigned an "Acreage Factor" for proration purposes to be determined by dividing the acreage in the non-standard unit by 160-acres.

Any unit containing between 158 and 162 acres shall be considered to contain 160 acres for purposes of these rules.

(B) The Secretary-Director of the Commission shall have authority to grant an exception to Rule 2 (A) without notice and hearing where application has been filed in due form and where the following facts exist and the following provisions are complied with:

1. The proposed non-standard unit consists of less than 160 acres or where the unorthodox size or shape of the tract is due to a variation in legal subdivision of the U. S. Public Land Surveys.

2. The non-standard unit consists of contiguous quarter-quarter sections and/or lots.

3. The non-standard unit lies wholly within a single governmental section.

4. The entire non-standard unit may reasonably be presumed to be productive of gas.

5. The applicant presents written consent in the form of waivers from:

(a) All operators owning acreage in the quarter section in which any part of the non-standard unit is situated and which acreage is not included in said non-standard unit.

(b) All operators owning interests in acreage offsetting the non-standard unit.

6. In lieu of sub-paragraph 5 of this rule, the applicant may furnish proof of the fact that said offset operators were notified by registered mail of his intent to form such non-standard unit. The Secretary of the Commission may approve the application if, after a period of 30 days following the mailing of said notice, no operator has made objection to formation of such non-standard unit.

Well Location Requirements:

RULE 3 (A) Wells shall be located at least 790 feet from the outer boundaries of the drilling tract and no closer than 25 feet from any quarter-quarter section line or subdivision inner boundary.

(B) The Secretary-Director of the Commission shall have authority to grant exception to Rule 3 (A) without notice and hearing where the application has been filed in due form and where the following facts exist and the following provisions are complied with:

1. The necessity for the unorthodox location is based on topographical conditions, and

2. (a) The ownership of all oil and gas leases within a radius of 790 feet of the proposed location is common with the ownership of the oil and gas leases under the proposed location, or

(b) All owners of oil and gas leases within such radius consent in writing to the proposed location

(c) In lieu of paragraph 2 (b) of this rule the applicant may furnish proof of the fact that said offset operators were notified by registered mail of his intent to drill an unorthodox location. The Secretary-Director of the Commission may approve the application if, after a period of twenty days following the mailing of said notice, no operator has made objection to the drilling of the unorthodox location.

RULE 4. When filing Form C-101, "Notice of Intention to Drill", or USGS Form 9-331-a, (whichever is applicable), all operators shall strictly comply with the applicable provisions of Rule 104. Accompanying the above form shall be a plat (Form C-128) of the acreage contained in the unit showing the ownership of the dedicated acreage.

Deliverability Test Requirements

RULE 5. The calculated deliverability at the "deliverability pressure" shall be determined in accordance with the provisions of Order R-333-C and D, as amended by Order R-333-E.

The Secretary of the Commission shall have authority to allow exceptions to the annual deliverability test requirement for marginal wells where the deliverability of a well is of such volume as to have no significance in the determination of the well's allowable. Application for such exceptions may be submitted in writing by the operator of the well and, if granted, may be revoked by the Secretary of the Commission at any time by requesting the well to be scheduled and tested in accordance with Order R-333-C and D as amended by Order R-333-E.

Nominations of Purchasers

RULE 6. The Commission shall hold a hearing, at least 30 days prior to the beginning of each gas proration period, to consider the "Preliminary Nominations" of purchasers, actual production, and such other factors as may be deemed applicable in determining the amount of gas that may be produced without waste from said pool during the ensuing gas proration period.

Each gas purchaser in the Tapacito-Pictured Cliffs Pool shall, at least 5 days prior to said hearing, submit a "Preliminary Nomination" for the quantity of gas which it in good faith actually desires to purchase during the ensuing proration period, by months, from the Tapacito-Pictured Cliffs Pool.

RULE 7. In the event a gas purchaser's market shall have increased or decreased, he shall file with the Commission prior to the 10th day of the month preceding the month for which the change in nominations is desired, a "Supplemental Nomination," showing the amount of gas he actually in good faith desires to purchase during the ensuing month from the Tapacito-Pictured Cliffs Pool. The Commission shall hold a public hearing between the 13th and 20th day of each month to determine the reasonable market demand for gas for the ensuing month.

Proration Schedule

RULE 8. The proration schedule shall set out the amount of gas which each well may produce during the month together with such other information as is necessary to show the allowable-production status of each well on the schedule.

The Commission shall include in the proration schedule all gas wells subject to these rules which are delivering gas to a gas transportation facility, or lease gathering system, and any well which the Commission finds is being discriminated against through denial of access to a gas transportation facility.

Allocation of Gas

RULE 9. The total allowable to be allocated to the pool each month shall be equal to the sum of the purchasers' nominations together with any adjustment which the Commission deems advisable. A monthly allowable shall be assigned to each well entitled to an allowable in the pool by allocating the pool allowable among all such wells in accordance with the procedure set out in Rule 10; provided, however, that the allowable assigned to any well shall not exceed its known producing ability. Wells with allowables so limited shall be classified as marginal wells as provided in Rule 21, 24, and 25 of this order.

RULE 10. The product obtained by multiplying each well's acreage factor by the calculated deliverability (expressed as MCF per day) for that well shall be known as the AD factor for that well. The acreage factor shall be determined to the nearest hundredth of a unit by dividing the acreage within the proration unit by 160. The "AD Factor" shall be computed to the nearest whole unit.

The allowable to be assigned to each marginal well shall be equal to the maximum production of said well during any month of the preceding six months.

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 following manner:

(1) Seventy-five percent (75%) of the pool allowable remaining to be allocated to non-marginal wells shall be allocated among such wells in the proportion that each well's "AD Factor" bears to the total "AD Factor" for all non-marginal wells in the pool.

(2) Twenty-five percent (25%) of the pool allowable remaining to be allocated to non-marginal wells shall be allocated among such wells in the proportion that each well's acreage factor bears to the total acreage factor for all non-marginal wells in the pool.

The annual 1957 deliverability tests, or initial deliverability tests where applicable, shall be used in calculating allowables for the proration period commencing August 1, 1958. Subsequent annual tests shall be used in calculating allowables for proration periods commencing during the next ensuing year.

Granting of Allowables:

RULE 11. No gas well shall be given an allowable until Form C-104 and Form C-110 have been filed, together with a plat (C-128) showing acreage attributed to said well and the locations of all wells on the lease.

RULE 12. Allowables to newly completed gas wells shall commence:

(a) on the date of connection to a gas transportation facility, such date to be determined from an affidavit furnished to the Commission (1000 Rio Brazos Road, Aztec, New Mexico) by the purchaser, or

(b) the latest filing date of Form C-104, C-110 and C-128, or

(c) a date 45 days prior to the date upon which the well's initial deliverability and shut-in pressure test is reported to the Commission on Form C-122-A in conformance with the provisions of R-333-C & D as amended by R-333-E,

whichever date is the later.

RULE 13. No well shall be assigned an allowable unless a deliverability test taken in conformance with the provisions of Order R-333-C & D as amended by R-333-E has been submitted, except as provided in Rule 5 above.

RULE 14. A change in a well's deliverability due to retest or test after recompletion or workover shall become effective:

(a) On the date of reconnection after workover, such date to be determined from Form C-104 as filed by the operators, or

(b) A date 45 days prior to the date upon which a well's initial deliverability and shut-in pressure test is reported to the Commission on Form C-122-A in conformance with the provisions of R-333-C & D as amended by R-333-E, or

(c) A date 45 days prior to the receipt and approval of Form C-104 by the Commission's office (1000 Rio Brazos Road, Aztec, New Mexico); (Form C-104 shall specify the exact nature of the workover or remedial work; if the nature of the work cannot be explained on Form C-104, in that event, Form C-103 shall also be filed in accordance with Rule 1106 of the Commission's Statewide Rules and Regulations;

whichever date is later.

RULE 15: If the acreage assigned to a well is changed, the operator shall immediately notify the District Supervisor and Secretary-Director in writing of such change. The revised allowable shall become effective on the first day of the month following receipt of the notification provided a revised Form C-128 has been filed with the Commission prior to that date.

RULE 16. The Commission may assign minimum allowables to individual wells in order to prevent premature abandonment.

Proration Periods

RULE 17. 7:00 o'clock a.m. Mountain Standard Time, February 1, and 7:00 o'clock a.m. Mountain Standard Time August 1, shall be the balancing dates and the periods of time between these dates shall be the gas proration periods for the Tapacito-Pictured Cliffs Pool. The first proration period shall commence August 1, 1958.

Balancing of Production

RULE 18. Underproduction: Any non-marginal well which has an underproduced status as of the end of a gas proration period shall be allowed to carry such underproduction forward into the next gas proration period and may produce such underproduction in addition to the allowable assigned during such succeeding period. Any allowable carried forward into a gas proration period and remaining unproduced at the end of such gas proration period shall be cancelled.

Production during any one month of a gas proration period in excess of the allowable assigned to a well for such month shall be applied against the underproduction carried into such period in determining the amount of allowable if any, to be cancelled.

RULE 19. Overproduction: Any well which has an overproduced status as of the end of a gas proration period shall carry such overproduction forward into the next gas proration period, provided that such overproduction shall be made up during such succeeding period. Any well which has not made up the overproduction carried into a gas proration period by the end of such period shall be shut-in until all such overproduction is made up. If at any time a well is overproduced in an amount equaling six times its average monthly allowable for the last six months, it shall be shut-in during that month and each succeeding month until it is over-produced less than 6 times its average monthly allowable for the last six months.

Allowable assigned to a well during any one month of a gas proration period in excess of the production during the month shall be applied against the overproduction carried into such period in determining the amount of overproduction if any, which has not been made up.

The Commission may allow overproduction to be made up at a lesser rate than would be the case if the well were completely shut-in upon a showing at public hearing after due notice that complete shut-in of the well would result in material damage to the well.

Any allowable assigned to a well at the end of a proration period, as a result of the cancellation of underproduced allowable and the reassignment thereof, shall be applied against the well's overproduction carried into said proration period.

RULE 20. The full production of gas from each well, including drilling gas, shall be charged against the well's allowable regardless of the disposition of the gas; provided, however, that gas used on the lease and in maintaining the producing ability of the well shall not be charged against the allowable.

Classification of Wells

RULE 21. A well shall be classified as marginal if it has failed for six consecutive months to produce its average monthly allowable for the six months immediately preceding such reclassification provided such failure was not occasioned by curtailment to compensate for overproduction, unless prior to such reclassification the operator or other interested party presents satisfactory evidence showing that the well should not be classified as marginal. However, a well shall not be classified as marginal if, during any one month of the six month period, said well has demonstrated its ability to produce its six months average allowable.

RULE 22. If at any time a marginal well demonstrates its ability to sustain production at a rate equal to the non-marginal allowable for a well of like deliverability and acreage, the marginal well shall be reclassified as non-marginal and its allowable and net status adjusted accordingly.

RULE 23. A well which has been reworked or recompleted shall be classified as a non-marginal well as of the day of reconnection to a pipeline until such time as production data, deliverability data, or other evidence as to the well's producing ability indicates that the well is improperly classified.

RULE 24. The Secretary-Director may reclassify a marginal or non-marginal well at any time the well's production data, deliverability data, or other evidence as to the well's producing ability justify such reclassification.

All wells not classified as marginal wells shall be classified as non-marginal wells.

RULE 25. A marginal well shall not be permitted to accumulate underproduction, and any underproduction accrued to a well prior to its classification as a marginal well shall be cancelled at the time of such reclassification.

Reporting of Production

RULE 26. The gas production from each well in the Tapacito-Pictured Cliffs Pool shall be metered separately and shall be reported to the Commission on Form C-115. Such report shall be postmarked on or before the 24th day of the month immediately following the month in which the gas reported was produced. The operator shall show on such report the disposition of the gas produced.

Each purchaser or taker of gas in the Tapacito-Pictured Cliffs Pool shall submit a report to the Commission, and such report shall be postmarked on or before the 15th day of the month immediately following the month in which the gas was purchased or taken. Such report shall be filed on either Form C-111 or Form C-114, whichever is applicable, and the wells shall be listed in approximately the same order as they are listed in the proration schedule.

Forms C-111 and C-114 as referred to herein shall be submitted in triplicate, the original being sent to the Commission at Box 871, Santa Fe, New Mexico; remaining copies will be sent to the Commission at 1000 Rio Brazos Road, Aztec, New Mexico, and Box 2045, Hobbs, New Mexico, respectively.

Forms C-115 shall be submitted in accordance with Rule 1114 of the Commission's Rules and Regulations.

The total production from any gas well in the Tapacito-Pictured Cliffs Pool shall be reported on Form C-115 regardless of the disposition of the gas.

General Provisions

RULE 27. The term "gas purchaser" as used in these rules shall mean any "taker" of gas either at the wellhead or at any point on the lease where connection is made to facilitate the transportation or utilization of gas. It shall be the responsibility of said "taker" to submit a nomination in accordance with Rules 6 and 7 of this order.

RULE 28. No gas, either dry gas or casinghead gas, produced from the Tapacito-Pictured Cliffs Pool, except that gas used for drilling purposes or for maintaining the productivity of a well, shall be flared or vented unless specifically authorized by order of the Commission after notice and hearing.

RULE 29. The failure to comply with the provisions of this order or the rules contained herein shall result in the cancellation of allowable assigned to the affected well. No further allowable shall be assigned to the affected well until all rules and regulations are complied with. The Secretary-Director shall notify the operator of the well and the purchaser, in writing, of the date of allowable cancellation and the reason therefor.

RULE 30. All transporters or users of gas in the Tapacito-Pictured Cliffs Pool shall file with the Commission a list of all wells located in said pool, or within one mile of the boundaries thereof, which have been connected to a gas transportation facility as of July 1, 1958. The list required above shall contain the name of the operator, lease name, well number, unit, and location of the well (Section, Township, and Range).

Transporters or users of gas shall also file gas well connection notices in accordance with Rule 12 as soon as possible after the date of connection. The vertical and horizontal limits of the Tapacito-Pictured Cliffs Pool are as set forth in Exhibit "A" attached hereto and made a part hereof.

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

EDWIN L. MECHEM, Chairman

MURRAY E. MORGAN, Member

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

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EXHIBIT "A"

Vertical and Horizontal Limits of the Tapacito-Pictured Cliffs Pool

VERTICAL LIMITS

PICTURED CLIFFS FORMATION

HORIZONTAL LIMITS

TOWNSHIP 25 NORTH, RANGE 3 WEST, NMPM	
Section 1:	SW/4
Section 2:	S/2
Section 3:	All
Section 4:	All
Section 5:	N/2
Section 9:	N/2
Section 10:	All
Section 11:	All
Section 15:	N/2

TOWNSHIP 26 NORTH, RANGE 3 WEST, NMPM	
Section 7:	S/2
Section 8:	All
Section 17:	All
Section 18:	All
Section 19:	All
Section 20:	All
Section 28:	All
Section 29:	All
Section 30:	All
Section 32:	All
Section 33:	All
Section 34:	W/2

TOWNSHIP 26 NORTH, RANGE 4 WEST, NMPM	
Section 3:	S/2
Section 4:	S/2
Section 5:	All
Section 6:	All
Section 7:	N/2
Section 8:	All
Section 9:	All
Section 10:	All
Section 11:	S/2
Section 13:	All
Section 14:	All
Section 15:	All
Section 16:	All
Section 17:	E/2
Section 22:	E/2
Section 23:	All
Section 24:	All

TOWNSHIP 26 NORTH, RANGE 5 WEST, NMPM
Section 1: E/2

TOWNSHIP 27 NORTH, RANGE 4 WEST, NMPM
Section 30: W/2
Section 31: All
Section 32: All
Section 33: W/2

TOWNSHIP 27 NORTH, RANGE 5 WEST, NMPM
Section 25: S/2
Section 26: S/2
Section 35: E/2
Section 36: All

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF THE OIL CONSERVATION COMMISSION UPON ITS OWN MOTION FOR AN ORDER INSTITUTING GAS PRORATIONING AND PROMULGATING RULES AND REGULATIONS FOR THE TAPACITO-PICTURED CLIFFS GAS POOL IN RIO ARRIBA COUNTY, NEW MEXICO	CASE NO. 1439 Order No. R-1193

APPLICATION FOR REHEARING

Comes now Southern Union Gas Company, one of the parties of record in the above entitled and numbered case (herein referred to as "Applicant"), 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-1193 dated June 10, 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 (incorporated by reference to finding No. 3 of Order No.R-794-E) that the Tapacito-Pictured Cliffs Gas Pool cannot be efficiently drained and developed on a 320-acre spacing pattern, whereas the evidence included in the record of this proceeding clearly indicates that throughout the great majority of the area of said pool, as defined in Exhibit "A" to Order No. R-1193, 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 consists 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 fixing the size of proration 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-1193, 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 (incorporated by reference to finding No. 3 of Order No. R-794-E) 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 size of proration unit for any particular pool. Also required to be considered under the provisions of Sec-

tion 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 proration units are established 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, or if a sufficient number of wells are drilled in the pool on a 160-acre spacing pattern to have a material adverse effect on his own allowables, 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 and to give him his fair share of the pool's total allowable, 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, insofar as it purports to establish 160-acre proration units for the entire 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 (incorporated by reference to finding No. 4 of Order No. R-794-E) 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 160-acre proration units for the entire pool is arbitrary, invalid and void.

WHEREFORE, Applicant prays that this application for rehearing be granted for the purpose of reconsidering Order No. R-1193, and that after notice as required by law, and upon rehearing, the Commission modify such order so as to prescribe 320 acres as the standard proration unit for the entire Tapacito-Pictured Cliffs Gas Pool or for such portion of the pool as the evidence indicates can be efficiently and economically drained and developed by one well per 320-acre tract.

Respectfully submitted,

SOUTHERN UNION GAS COMPANY

A. S. Grenier

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

June 26, 1958