

CASE 9222: Application of FEDERAL
COURTS AND THE CONSTITUTION.
FOOT NOTES & CASE REFERENCES.

CASE No.

4832

Application,

Transcripts,

Small Exhibits

ETC.

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
STATE LAND OFFICE
SANTA FE, NEW MEXICO
Wednesday, September 27, 1972 at 11:10 A.M.
EXAMINER HEARING

IN THE MATTER OF:

Application of Pennzoil Company for pool) Docket No. 21-72
reclassification, special pool rules,) Case No. 4832
and a non-standard proration unit,)
Roosevelt County, New Mexico.)

BEFORE: ELVIS A. UTZ, Examiner

TRANSCRIPT OF HEARING

PROCEEDINGS

MR. UTZ: The hearing will come to order, please.
We will take the next case 4832.

MR. KELLAHIN: I am Tom Kellahin, Kellahin and Fox,
Santa Fe, New Mexico, appearing for the applicant Pennzoil
Company and I have one witness to be sworn.

MR. HATCH: Case 4832, Application of Pennzoil
Company for pool reclassification, special pool rules, and a non-
standard proration unit, Roosevelt County, New Mexico.

(Whereupon, Mr. J. C. Raney was called to the
stand and sworn.)

MR. J. C. RANEY

having been first duly sworn according to law, upon his oath,
testified as follows:

DIRECT EXAMINATION

BY MR. TOM KELLAHIN:

Q Please state your name and occupation for the record,
please.

A J. C. Raney. I am a petroleum engineer with Pennzoil
Company in Midland.

Q Have you previously testified before this Commission or
one of its hearing examiners and made your qualifications
as a petroleum engineer a matter of record and have been
accepted by the Commission?

1 A Yes, sir.

2 Q Have you examined and are you familiar with the facts of
3 this particular application by Pennzoil?

4 A Yes, I am.

5 MR. KELLAHIN: Mr. Examiner, are the witness's
6 qualifications acceptable?

7 MR. EXAMINER: Yes, they are.

8 Q (By Mr. Kellahin) Mr. Raney, will you please state
9 briefly what the applicant is seeking by this application.

10 A Pennzoil requests the creation of an associated pool and
11 an adoption of temporary pool rules for the production of
12 oil and/or gas from the Northwest Todd-San Andres Pool.
13 We request the provision for an 80 acre oil spacing and
14 320 acre gas spacing and the adoption of a limiting gas-
15 oil ratio of 10,000 to 1 and the establishment of the
16 classification of wells based on 30,000 cubic feet per
17 barrel and a non-standard oil proration unit consisting of
18 Northwest Quarter of the Southwest Quarter and Southwest
19 Quarter of the Northwest Quarter of Section 8, Township 7
20 South, Range 34 East, Roosevelt County, New Mexico. We
21 also request that the pool rules for the Northwest Todd-
22 San Andres gas pool not be abolished at this time. We
23 also request that these pool rules that we are requesting
24 be made on a temporary basis.

25 Q How many exhibits have you prepared for this application?

1 A I have three exhibits.

2 Q Please refer to what has been marked Applicant's Exhibit 1
3 and identify it and explain what information it contains.

4 A Exhibit 1 is a structure map of the San Andres pi marker,
5 a recognized geological marker in this area, and shows
6 the general structure of the San Andres formation. The
7 structure shown on Exhibit 1 indicates a separation from
8 the Todd-San Andres pool to the Southeast, as do the dry
9 holes in Section 20 and 29, Township 7 South, 35 East.
10 Also the three wells along the north and west sides of the
11 Todd pool have performed poorly, indicating their being
12 edge wells. The Pennzoil's Superior State Number 1 was
13 perforated in the interval forty-two thirty-one to forty-
14 two sixty-one feet and after treatment with 11,000 gallons
15 of acid, the well flowed 2.472 million cubic feet of gas
16 per day, a pressure of 900 pounds. Essentially no
17 measurable liquids were produced at that time. The
18 calculated absolute ^{open flow} overflow was 5,000,000 cubic feet of
19 gas per day. Also the initial bottom-hole pressure or
20 shut-in bottom-hole pressure of the Superior State Number
21 1 was 1277 pounds which is approximately 20 pounds or two
22 psig higher than the original bottom-hole pressure in the
23 Todd-San Andres pool. Wells in the Todd-San Andres were
24 drilled seven years before the Superior State Number 1,
25 this indicating separation in a separate source of supply.

1 MR. HATCH: Mr. Rane, let me interrupt just a
2 moment. I think you said a minute ago 34.

3 THE WITNESS: 35.

4 MR. HATCH: Okay.

5 Q (By Mr. Kellahin) Do you want to make any comments about
6 the San Andres well in Section 9?

7 A Yes. This is the well in the Northeast Quarter of Section
8 9 operated as the Cactus Kiwanis State Number 1. It was
9 a shut-in gas well and was put on the line at the same
10 time the Pennzoil well was put on. At the time the wells
11 were put on the line the Cactus well had approximately
12 150 pounds less shut-in tubing pressure and the Cactus
13 well is currently producing approximately 1 million cubic
14 feet of gas per day with .58 barrels of high gravity
15 concentrate. It was perforated in the upper portion of
16 the San Andres pay interval approximately forty-one eighty
17 to forty-two zero eight. The well located in the Northwest
18 Quarter of Section 9 was reported as a dry hole. The well
19 is structurally high to the well in the Northeast Quarter
20 of Section 9 and should have been productive. I don't
21 know what the real problem was on this. I attempted to
22 find out prior to this hearing.

23 Q Do you have any information with regards to Pennzoil
24 Superior State Number 1 that you would like to place in
25 the record?

1 A Yes. The Pennzoil Company's Superior State Number 1 was
2 shut-in gas well from February 1971 and was put on the
3 line on July 10, 1972. The shut-in wellhead pressure on
4 July 10, 1972 was 1170 psi. During July 1972, approxi-
5 mately 22 days of production, the well produced at an
6 average rate of 879 MCF of gas per day with an average
7 flowing tubing pressure of 1,095 psi. During this period,
8 no measurable liquids were produced. During the first 13
9 days of August, the well produced at an average rate of
10 827 MCF per day with an average flowing tubing pressure
11 of 960 psi. There was some liquid production during this
12 period accounting for the setting of production tanks.
13 From August 14, 1972 through September 15, 1972 the well
14 produced a total of 25,374 MCF of gas plus 530 barrels
15 of 29 degree gravity oil at 60 degrees Fahrenheit plus 276
16 barrels of water. The gas-oil ratio during this period
17 was 47,875 to 1 and the gas-liquid ratio was 31,481 to 1.
18 The water production during this period is 34.2 per cent
19 of the total liquid production. Based on the production
20 history just discussed, the need for the creation of an
21 associated pool for the production of oil and/or gas from
22 the Northwest Todd-San Andres pool is indicated.

23 Q Refer to what has been marked Applicant's Exhibit 2 and I
24 ask you to identify it and explain what information it
25 contains.

- 1 A Exhibit 2 is the estimated economics and a comparison of
2 the economics for the drilling on 160 acre gas spacing
3 and a 40 acre oil versus 320 acre spacing and an 80 acre
4 oil spacing. The estimated reserves are volumetrically
5 calculated, but they are substantiated by the performance
6 of other San Andres wells in other fields in the area.
7 The total revenue after royalty and severance taxes is
8 calculated to be \$256,620 for 160 acre and \$207,690 for
9 320 acre spacing. Drilling and completion cost is
10 \$70,000 per well and operating cost is \$300 per well per
11 month. Total expense of \$183,200 for two wells on 160 acre
12 spacing and \$98,800 for one well on 320 acre spacing.
13 A profit of \$73,420 with a profit to investment ratio of
14 0.52 is indicated from two wells on 160 acre spacing.
15 These profit indicators are not adequate for further
16 development drilling on 160 acre spacing.
- 17 Q Based on the information contained in Exhibit 2, what is
18 your opinion with regards to the economics of your spacing
19 here for 320 on your gas well and 80 acres on your oil?
- 20 A Well, from this evidence, drilling on anything less than
21 320 acres cannot be economically justified.
- 22 Q Refer to what has been marked as Applicant's Exhibit 3
23 and I ask you to explain what information it contains.
- 24 A Exhibit 3 is the average reservoir properties that have
25 been determined from the available logs and data obtained

1 from the drilling of this Superior State Number 1.

2 Based on the data shown on Exhibit 3 it is my opinion
3 that a well on 320 acre spacing for gas and 80 acre
4 spacing for oil is capable of draining the proposed unit
5 sizes. As stated in our application we would like to
6 recommend approval of emitting ^{limiting} gas-oil ratio 10,000 cubic
7 feet of gas per barrel. This limitation would allow
8 sufficient producing rate to be economical to evaluate
9 the reservoir performance and yet not high enough to
10 create irreparable reservoir damage.

11 Q Do you have any recommendations as to a GOR ratio in your
12 definition of what will be a gas and what will be an oil
13 well?

14 A Yes. We would like to recommend a well producing with a
15 gas-oil ratio of 30,000 cubic feet of gas per barrel or
16 greater be classified as a gas well and a well with a gas-
17 oil ratio of less than 30,000 be classified as an oil well.

18 Q The state-wide rules provide for 100,000 to 1 classifica-
19 tion; isn't that correct?

20 A Yes.

21 Q Why have you got the 30,000 to 1?

22 A From the daily field production data that has been gathered,
23 it can be concluded that gas-oil ratios on the Superior
24 State fluctuates greatly and for this reason there is a
25 possibility that the well may revert back to a gas well

1 in the future.

2 Q On your Exhibit 1 here you have indicated a non-standard
3 proration unit. You haven't crossed the section lines
4 here but it is a non-standard location. Why have you
5 sought that, Mr. Raney?

6 A Our reason for this is to--the State owns the royalty
7 under the entire communitized or unitized area in the West
8 Half of Section 8, but there is a difference in the over-
9 riding royalty interest in the north than there is in the
10 south and the location of this well makes it imperative
11 that we do include the North Half because of drainage.
12 We feel that in order to protect the correlative rights
13 of the owners in the North Half of the communitized gas
14 proration unit and to be compensated for drainage that
15 will occur from under their property in this well, we
16 recommend the approval of a non-standard oil proration unit
17 consisting of the Northwest Quarter, Southwest Quarter
18 and the Southwest Quarter, Northwest Quarter of Section 8,
19 Township 7 South, Range 35 East to be dedicated to this
20 well.

21 Q In conclusion then, Mr. Raney, is it your opinion that
22 approval of this application is in the best interest of
23 conservation in that it will prevent waste and protect the
24 correlative rights of others?

25 A Yes, and we feel that on this spacing it will prevent the

1 drilling of unnecessary wells and that it will prevent
2 economic loss to the operator and we do feel that we can
3 drain sufficiently the area as shown on Exhibit 2. You
4 can see that there is some difference in the total recovery
5 there, but the economics don't justify drilling on anything
6 less than 320 acre spacing.

7 Q Do you have anything else that you would like to add?

8 A We would like to propose that these rules be adopted on
9 a temporary basis for a period of one year and during this
10 time we would be able to gather sufficient data to make
11 further recommendations as to permanent field rules.

12 Q Were Exhibits 1 through 3 prepared by you or under your
13 direction?

14 A Yes, sir.

15 MR. KELLAHIN: Mr. Examiner, we move the introduction
16 of Applicant's Exhibits 1 through 3.

17 MR. UTZ: Without objection Exhibits 1 through 3 will
18 be entered into the record of this case.

19 MR. KELLAHIN: We have nothing further on direct
20 examination.
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CROSS EXAMINATION

1
2 BY MR. UTZ:

3 Q Mr. Raney, what is the GOR of your Superior State Number 1?
4 A As stated it is approximately 47,800.
5 Q You consider it a gas well?

6 A Yes, and it will fluctuate a great deal from a low of
7 about 20 to 25,000 up to above 50 or 60,000 to 1. It
8 fluctuates greatly as the well produces the oil in slugs.
9 Q Is the Kiwanis State Number 2 an oil well?

10 A No, sir. It is a gas well. That is a Cactus Drilling
11 Company well. It is a gas well. It produces approximately
12 one-half barrel of high gravity condensate per day.
13 Q What is the GOR of that well?

14 A It would be approximately a million to one or two million
15 to one. This well is perforated in the upper part of the
16 San Andres. We perforated through the entire interval
17 above what we calculated to be water.

18 Q Is there any other wells in this pool?
19 A No, sir, not in this area up there.

20 Q If there are no oil wells, how do we have an associated
21 pool?
22 A

23 Because of the character of the liquid that is being
24 produced. The liquid is not a natural gas liquid. It is
25 an oil or what I would consider an oil, a 29 gravity at
60 degree Fahrenheit.

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1 Q What would the oil allowable or the depth factor be for
2 4200 foot depth?

3 A On the current basis it would be 160 barrels per day sub-
4 ject to any penalty because of excessive gas-oil ratio.

5 Q So you would be asking for an allowable of 160 times 10
6 times 4; is that correct?

7 A Yes, sir. What my understanding of gas allowable would be
8 1.6 million per day. We are producing right now approx-
9 imately three-quarters of a million or 750 MCF per day.
10 Based on this 180 acre allowable this would give us 160
11 barrels subject to a penalty factor of approximately--
12 it would be penalized by a factor of 25 per cent or an
13 allowable of 40 barrels per day which is, we feel, we will
14 never need this. We would like to be able to produce it
15 at a current rate.

16 Q So to summarize, you are asking this pool to be classified
17 to an associated pool from a gas pool. You are asking
18 for special rules to this effect and then you are asking
19 for a non-standard proration unit consisting of quarter-
20 quarter sections across quarter section line?

21 A Yes, sir, across the half section line there in the West
22 Half.

23 MR. UTZ: Are there other questions?

24 MR. PORTER: I missed the first part of your testi-
25 mony, Mr. Raney. Do you expect additional development in the

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1 pool?

2 THE WITNESS: It will be to either the Northeast or
3 Northwest. We don't feel like that there is sufficient in the
4 Southeast here and we would go to the Northeast or Northwest.
5 We will want to evaluate this. I have predicted some recovery
6 rates and economics on it.

7 MR. PORTER: Thank you.

8 MR. KELLAHIN: That would lead to pattern development
9 in that area, would it not?

10 THE WITNESS: Yes, sir.

11 MR. UTZ: Are there other questions? Witness may be
12 excused. Statements in the case?

13 Case be taken under advisement.

14 THE WITNESS: I would like to make one correction on
15 Exhibit Number 3 in the current bottom-hole pressure, this is
16 a typing error. That should be ten sixty-six.

17 MR. KELLAHIN: It is ten sixty-four on the exhibit or
18 ten forty-six. It should be ten sixty-six.

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I N D E XWITNESSPAGE

MR. J. C. RANEY

3

Direct Examination by Mr. Tom Kellahin

12

Cross Examination by Mr. Utz

E X H I B I T SPAGEApplicant's Exhibit Number 1 -
Structure map of the San Andres
Pi marker

11

Applicant's Exhibit Number 2 -
Estimated economics and comparison
of economics for drilling

11

Applicant's Exhibit Number 3 -
Average reservoir properties

11

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PAGE

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1
2 STATE OF NEW MEXICO)
3 : ss.
4 COUNTY OF BERNALILLO)

5 I, MARCIA J. HUGHES, Court Reporter, do hereby certify
6 that the above and foregoing pages are a true and correct
7 transcript of the proceedings had before the New Mexico Oil
8 Conservation Commission on Wednesday, September 27, 1972.

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Marcia Hughes

4832
Sept. 27, 1972
[Signature]

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. 4832
Order No. R-4441

APPLICATION OF PENNZOIL COMPANY
FOR POOL RECLASSIFICATION, SPECIAL
POOL RULES, AND A NON-STANDARD
PRORATION UNIT, ROOSEVELT COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 27, 1972, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 27th day of November, 1972, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Pennzoil Company, seeks the creation of a new pool for the production of gas from the San Andres formation for its Superior State "COM" Well No. 1, located in Unit L of Section 8, Township 7 South, Range 35 East, NMPM, Roosevelt County, New Mexico.

(3) That the applicant further seeks approval of an 80-acre non-standard oil proration unit in the subject pool comprising the NW/4 SW/4 and the SW/4 NW/4 of the above-described Section 8 to be dedicated to the above-described Superior State "COM" Well No. 1.

(4) That said well is currently classified as a gas well in the Northwest Todd-San Andres Pool.

(5) That the evidence presently available established that the subject well is a gas-cap well in the Northwest Todd-San Andres Pool.

(6) That the evidence presently available further establishes that the Northwest Todd-San Andres Pool should be reclassified as an associated pool and that Special Rules and Regulations should be promulgated therefor.

(7) That the reservoir characteristics of the subject pool indicate that the gas area can be efficiently and economically drained and developed on 320-acre spacing, and that the oil area can be efficiently and economically drained and developed on 80-acre spacing.

(8) That the reservoir characteristics of the subject pool presently available justify the definition of a gas well as a well producing with a gas-liquid ratio of 30,000 or more cubic feet of gas per barrel of liquid hydrocarbons.

(9) That the reservoir characteristics of the subject pool presently available justify the establishment of a gas-liquid ratio limitation of 5,000 cubic feet of gas per barrel of liquid hydrocarbons.

(10) That special rules and regulations providing for 320-acre gas well spacing and 80-acre oil well spacing should be promulgated for the subject pool in order to prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells, and otherwise prevent waste and protect correlative rights.

(11) That the special rules and regulations should provide for the classification of a gas well as a well producing with a gas-liquid ratio of 30,000 or more cubic feet of gas per barrel of liquid hydrocarbons and should provide for a gas-liquid ratio of 5,000 cubic feet of gas per barrel of liquid hydrocarbons in order to afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil or gas, or both, and for this purpose to use his just and equitable share of the reservoir energy.

(12) That the special rules and regulations should establish proration rules for gas wells in order to prevent waste and protect correlative rights, and should establish 1,500 Mcf per day as the maximum allowable for a gas well located on a standard 320-acre unit.

(13) That the above-described non-standard oil proration unit can be efficiently and economically drained and developed by the subject well.

(14) That the request for approval for the non-standard oil proration unit should be approved.

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Case No. 4832
Order No. R-4441

IT IS THEREFORE ORDERED:

(1) That effective December 1, 1972, the Northwest Todd-San Andres Pool, as previously defined and described, is hereby reclassified as the Northwest Todd-San Andres Associated Pool, Roosevelt County, New Mexico.

(2) That, effective December 1, 1972, Special Rules and Regulations for the Northwest Todd-San Andres Associated Pool, Roosevelt County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE
NORTHWEST TODD-SAN ANDRES ASSOCIATED POOL

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

RULE 2. (a) Each gas well shall be located on a standard unit consisting of approximately 320 acres which shall comprise any two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Land Surveys. For purposes of these rules, a unit consisting of between 316 and 324 contiguous surface acres shall be considered a standard unit.

(b) Each oil well shall be located on a standard unit containing 80 acres, more or less, consisting of the N/2, S/2, E/2, or W/2 of a single governmental quarter section; provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections in the unit. For purposes of these rules, a unit consisting of between 79 and 81 contiguous surface acres shall be considered a standard unit.

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 (a) without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

(a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

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

RULE 4. Each well drilled in a known oil productive area shall be located no nearer than 330 feet to any quarter-quarter section line, and each well drilled in a known gas-productive area shall be located within 150 feet of the center of a quarter-quarter section.

RULE 5. A well shall be classified as a gas well if it has a gas-liquid ratio of 30,000 or more cubic feet of gas per barrel of liquid hydrocarbons. A well shall be classified as an oil well if it has a gas-liquid ratio of less than 30,000 cubic feet of gas per barrel of liquid hydrocarbons. The simultaneous dedication of any acreage to an oil well and a gas well is prohibited.

RULE 6. That the limiting gas-oil ratio shall be 5,000 cubic feet of gas for each barrel of oil produced.

RULE 7. An oil well which has 80 acres dedicated to it shall be permitted to produce only that amount of gas determined by multiplying the top unit oil allowable for the pool by the limiting gas-liquid ratio for the pool. In the event there is more than one oil well on a 80-acre oil proration unit, the operator may produce the allowable assigned to the 80-acre unit from the wells on the unit in any proportion.

A gas well located on a standard 320-acre proration unit shall be permitted to produce a maximum of 1,500 MCF of gas per day. In the event there is more than one gas well on a 320-acre gas proration unit, the operator may produce the amount of gas assigned to the unit from the wells on the unit in any proportion.

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RULE 8. The operator of each newly completed well shall cause a gas-liquid ratio test to be taken on the well upon recovery of all load oil from the well, provided however, that in no event shall the test be commenced later than 30 days from the date of first production unless the well is connected to a gas-gathering facility and is producing under a temporary gas allowable assigned in accordance with Rule 11. Any well which is shut in shall be exempted from the gas-liquid ratio test requirement so long as it remains shut in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Rule 9. If the gas-liquid ratio is 30,000 cubic feet of gas per barrel of liquid hydrocarbons, or more, the operator shall not produce the well until beneficial use can be made of the gas.

RULE 9. Gas-liquid ratio tests shall be taken on all wells during the month of November of each year. The initial gas-liquid ratio test shall suffice as the first annual test. Tests shall be 24-hour tests, being the final 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Commission Form C-116 on or before the 10th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio tests, each operator shall file with the appropriate district office of the Commission a test schedule for its wells specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators. The Commission's district supervisor may grant exceptions to the above test requirements where it is demonstrated that wells produce no liquids.

Special tests shall also be taken at the request of the Secretary-Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with the procedures outlined hereinabove, including notification to the Commission and offset operators.

RULE 10. An initial shut-in pressure test shall be taken on each gas well and shall be reported to the Commission on Form C-125.

RULE 11. Any well completed after the effective date of these rules shall receive an allowable only upon receipt by the appropriate Commission district office of Commission Forms C-104 and C-116, properly executed. The District Supervisor of the Commission's district office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the number of cubic feet of gas obtained by multiplying the daily top unit allowable for the pool by the limiting gas-liquid ratio for the pool.

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RULE 12. That the initial gas proration period shall be from 7:00 a.m. December 1, 1972, to 7:00 a.m. January 1, 1974. Subsequently, the date 7:00 a.m. January 1 of each year shall be known as the balancing date, and the twelve months following this date shall be known as the gas proration period.

RULE 13. Any gas 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.

RULE 14. 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 15. 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 compensated for during such succeeding period. Any well which has not compensated for the overproduction carried into a gas proration period by the end of such proration period shall be shut in until such overproduction is compensated for. If, at any time, a well is overproduced an amount equalling three times its current monthly allowable, it shall be shut in during that month and each succeeding month until the well is overproduced less than three times its current monthly allowable.

RULE 16. The allowable assigned to a well during any one month of a gas proration period in excess of the production for the same month shall be applied against the overproduction carried into such period in determining the amount of overproduction, if any, which has not been compensated for.

RULE 17. The Commission may allow overproduction to be compensated for at a lesser rate than would be the case if the well were completely shut in upon a showing after notice and hearing that complete shut in of the well would result in material damage to the well or reservoir.

RULE 18. The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be reported to the Commission on Form C-115 so as to reach the Commission on or before the 24th day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the produced gas.

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RULE 19. Each purchaser or taker of gas shall submit a report to the Commission so as to reach the Commission on or before the 15th day of the month next succeeding the month in which the gas was purchased or taken. Such report shall be filed on Form C-111 with the wells being listed in the same order as they are listed on the appropriate proration schedule.

RULE 20. Failure to comply with any provision of these rules shall result in the immediate cancellation of allowable assigned to the affected well. No further allowable shall be assigned until all rules and regulations have been complied with. The Secretary-Director shall notify the operator of the well and purchaser in writing of the date of allowable cancellation and the reason therefor.

RULE 21. All transporters or users of gas shall file gas well-connection notices with the Commission as soon as possible after the date of connection.

RULE 22. Allowables to wells whose classification has changed from oil to gas or from gas to oil as the result of a gas-liquid ratio test shall commence on the first day of the month following the month in which such test was reported, provided that a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the dedicated acreage has been filed.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Northwest Todd-San Andres Associated Pool or in the San Andres formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the appropriate district office of the Commission in writing of the name and location of the well on or before December 1, 1972.

(2) That all operators shall, prior to December 1, 1972, file with the Commission Form C-102 for each well showing the acreage dedicated to the well.

(3) That an 80-acre non-standard oil proration unit in the Northwest Todd-San Andres Associated Pool comprising the NW/4 SW/4 and the SW/4 NW/4 of Section 8, Township 7 South, Range 35 East, NMPM, Roosevelt County, New Mexico, is hereby established and shall be dedicated to the Pennzoil Company Superior State "COM" Well No. 1 located in Unit L of said Section 8, upon reclassification of said well as an oil well.

-8-

Case No. 4832
Order No. R-4441

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

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

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION



Bruce King
BRUCE KING, Chairman

Alex J. Armijo
ALEX J. ARMILLO, Member

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

S E A L

dr/

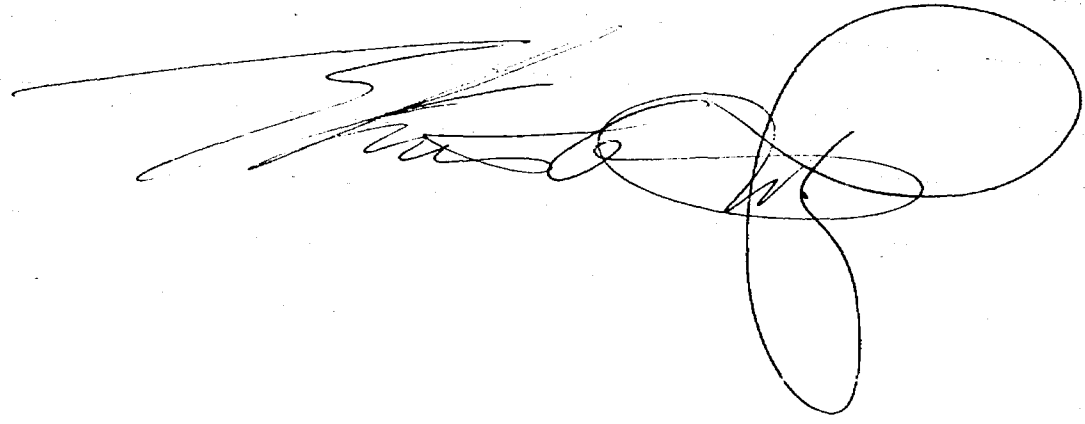
Case 4832

Heard 9-27-72

Rec- 9-29-72

1. Grant Pennzoil request
for a G.D. - Annotated
Pool. G.D. 10,000:11. Gas
well definition 30,000:11.

2. Grant & NSP. consisting of
N1/4 + SW NW of 8-75-35E.
H. Joplin S.A. 88 Ac.
for their Superior State #1
L 8-75-35E.

A large, stylized handwritten signature, possibly reading "Mark", is written in dark ink. It features a prominent loop at the end and a horizontal line extending to the left.

Docket No. 21-72

DOCKET: EXAMINER HEARING - WEDNESDAY - SEPTEMBER 27, 1972

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

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

CASE 4829: Application of Coastal States Gas Producing Company for a special depth bracket allowable, Lea and Roosevelt Counties, New Mexico. Applicant, in the above-styled cause, seeks the establishment of a special depth bracket allowable greater than the present allowable for the Vada-Pennsylvanian Pool, Lea and Roosevelt Counties, New Mexico.

CASE 4830: Application of Mobil Oil Corporation for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the North Vacuum-Abo Unit Area comprising 5,680 acres, more or less, of Federal, State, and Fee lands in Township 17 South, Ranges 34 and 35 East, Lea County, New Mexico.

CASE 4831: Application of Mobil Oil Corporation for a pressure maintenance project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in its North Vacuum-Abo Unit Area by the injection of fluid into the North Vacuum-Abo Pool through 34 wells located in Township 17 South, Ranges 34 and 35 East, Lea County, New Mexico.

Applicant further seeks a procedure whereby additional producing and injection wells may be approved without notice and hearing.

CASE 4832: Application of Pennzoil Company for pool reclassification, special pool rules, and a non-standard proration unit, Roosevelt County, New Mexico. Applicant, in the above-styled cause, seeks the reclassification of the Northwest Todd-San Andres Gas Pool to an associated pool for the production of gas and oil and the promulgation of special rules therefor including provisions for the classification of oil and gas wells, oil and gas spacing, and a gas-oil ratio limitation of 10,000 cubic feet of gas per barrel of oil.

Applicant further seeks approval of an 80-acre non-standard oil proration unit in the subject pool comprising the NW/4 SW/4 and the SW/4 NW/4 of Section 8, Township 7 South, Range 35 East to be dedicated to its Superior State "Com" Well No. 1 located in Unit L of said Section 8.

CASE 4833: Application of Tesoro Petroleum Corporation for compulsory pooling and an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests underlying the E/2 of Section 28, Township 20 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South line and from 1160

(Case 4833 continued from page 1)

to 1200 feet from the East line of said Section 28, adjacent to the Springs-Upper Pennsylvanian Gas Pool.

Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4834: Application of Read & Stevens, Inc. for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a Devonian test well at an unorthodox location 1200 feet from the South line and 660 feet from the East line of Section 2, Township 14 South, Range 37 East, Lea County, New Mexico, adjacent to the King-Devonian Pool.

CASE 4835: Application of Texas Oil & Gas Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests from the surface of the ground down to and including the Pennsylvanian formation underlying the S/2 of Section 13, Township 22 South, Range 26 East, South Carlsbad Field area, Eddy County, New Mexico, to be dedicated to a well to be drilled 1980 feet from the South and East lines of said Section 13. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

CASE 4836: Application of Michael P. Grace II and Corinne Grace for compulsory pooling, Eddy County, New Mexico. Applicants, in the above-styled cause, seek an order pooling all mineral interests from the surface of the ground down to and including the Morrow formation underlying the S/2 of Section 24, Township 22 South, Range 26 East, South Carlsbad Field area, Eddy County, New Mexico, to be dedicated to a well to be drilled at an orthodox location for said unit. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision for said well.

CASE 4819: (Continued from the September 13, 1972, Examiner Hearing)
Application of D. L. Hannifin for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in and under the S/2 of Section 24, Township 22 South, Range 26 East, South Carlsbad Field, Eddy County, New Mexico, to be dedicated to a well to be drilled 1980 feet from the South and East lines of said Section 24. Also to be considered will be the costs of drilling said well, a charge for the risk involved, a provision for the allocation of actual operating costs, and the establishment of charges for supervision of said well.

PLANNED TESTIMONY
NEW MEXICO OIL CONSERVATION COMMISSION
CASE 4832

CREATION OF AN ASSOCIATED POOL
ADOPTION OF TEMPORARY POOL RULES AND APPROVAL OF NON-STANDARD UNIT
ROOSEVELT COUNTY, NEW MEXICO

Pennzoil Company's Superior State No. 1 well located in Unit L, Section 8, T-7-S, R-35-E, Roosevelt County, New Mexico was completed as a gas well in the San Andres formation on 2-5-71.

Exhibit I is a structure map of the San Andres formation with the contours drawn on the top of the San Andres Pi marker, a recognized geological marker in this area, and shows the general structure of the San Andres formation.

The structure shown on Exhibit I indicates separation from the Todd San Andres Pool to the southeast, as do the dry holes in section 20 and 29. Also, the three wells along the north and west sides of the Todd Pool have performed poorly, indicating their being edge wells.

Pennzoil's Superior State No. 1 was perforated in the interval 4231 to 4261 feet and after treatment with 11,000 gallons of acid the well flowed 2.472 MMCFPD, FTP 900#. The C.A.O.F. potential was 5.000 MMCFPD. The bottom hole pressure was 1,277 psig which was slightly higher than the original BHP reported in the Todd San Andres Pool to the southeast. (Wells in the Todd San Andres were drilled seven years before the Superior State No. 1, thus indicating a separate source of supply.)

The San Andres gas well in the NE/4 of section 9, operated by Cactus Drilling Company was put on line at the same time as the Pennzoil well. The well had approximately 150 pounds less S.I.T.P. than our well did.

The Cactus well produced 1.31 (?) MMCFPD of dry gas during August. The well is perforated in the upper portion of the San Andres pay.

The well located in the NW/4 of section 9 was reported as a dry hole. The well is structurally high to the well in the NE/4 of section 9 and should have been productive.

Production Summary:

Pennzoil's Superior State No. 1 was shut-in from January, 1971 to July 10, 1972 waiting on a pipeline connection. The shut-in wellhead pressure on July 10, 1972 was 1170 psi.

During July, 1972 (22 days) the well produced at an average rate of 879 MCF of gas with an average flowing tubing pressure of 1,095 psi. During the period, no measurable liquids were produced. During the first 13 days of August, the well produced at an average rate of 827 MCF per day with an average flowing tubing pressure of 960 psi, there was some liquid production during this period and the down time is accounted for to set production tanks.

From August 14, 1972 thru September 15, 1972 the well produced 25,374 MCF of gas plus 530 barrels of 29⁰ gravity oil (at 60⁰ F) plus 276 barrels of water. The gas-oil ratio during this period was 47,875 to 1 and the gas-liquid ratio was 31,481 to 1. The water production during this period is 34.2% of the total liquid production. The latest gas-oil ratio based on the percentage of water to the total liquid production is 30,458 to 1.

Based on the production history just discussed, the need for the creation of an associated pool for the production of oil and/or gas from the Northwest Todd-San Andres Pool is indicated.

Exhibit II shows the comparative economics for 160 ac. gas and 40 ac. oil versus 320 ac. gas and 80 ac. oil spacing for wells drilled in this reservoir. The estimated reserves are volumetrically calculated, but they are substantiated by the performance of other San Andres wells in other fields in the area. Total revenue after royalty and severance taxes is calculated to be \$256,620 for 160 acre and \$207,690 for 320 acre spacing. Drilling and completion cost is \$70,000 per well and operating cost is \$300 per well per month. Total expense of \$183,200 for two wells on 160 acre spacing and \$98,800 for one well on 320 acre spacing. A profit of \$73,420 with a profit to investment ratio of \$0.52 is indicated from two wells on 160 acre spacing. These profit indicators are not adequate for further development drilling on 160 acre spacing. The profit of \$108,890 and a profit to investment ratio of 1.52 to 1 for one well on 320 acre spacing is acceptable to Pennzoil management for additional development on this spacing. We will want to evaluate additional production and reservoir data before any development is attempted. It is evident from Exhibit II, the development on anything less than 320 ac. gas and 80 ac. oil spacing cannot be economically justified.

As stated in our application, we recommend approval of a limiting gas-oil ratio of 10,000 cubic feet of gas per barrel of oil. This limitation will allow a sufficient producing rate to be economical, to evaluate the reservoir performance and yet not high enough to create irreparable reservoir damage.

CASE 4832 (Continued)

We recommend that a well producing with a gas-oil ratio of 30,000 cubic feet of gas per barrel of oil or greater be classified as a gas well and a well producing with a gas-oil ratio of less than 30,000 to 1 be classified as an oil well. From the daily field production data that has been gathered, it can be concluded that gas-oil ratios on the Superior State fluctuates greatly and for this reason, there is a possibility the well will revert to a gas well.

In order to protect the correlative rights of the owners of the N/2 of the communitized gas proration unit and to be compensated for drainage that will occur from under their property in this well, we recommend the approval of a non-standard oil proration unit consisting of the NW/4 SW/4 and the SW/4 NW/4 of section 8, T-7-S, R-35-E be dedicated to the Superior State well No. 1. Based on Exhibit III, the reservoir properties obtained from logs in this well, it is my opinion that this well is capable of draining the proposed proration unit sizes. I would again like to emphasize the need for approval of the non-standard unit configuration, mainly the drainage that will occur from under the N/2 of the W/2 of section 8.

Pennzoil Company recommends the proposed pool rules be adopted on a temporary basis for a period of one year.

I am of the opinion the approval of this application is in the best interest of conservation will result in the recovery of oil and gas that would not otherwise be recovered, and will prevent waste and protect correlative rights.

ESTIMATED ECONOMICS
SUPERIOR STATE NO. 1
PENNZOIL COMPANY
ROOSEVELT COUNTY, NEW MEXICO

	<u>Revenue</u>	<u>Gas-160 Ac. Oil- 40 Ac.</u>	<u>Spacing</u> <u>Gas-320 Ac. Oil- 80 Ac.</u>
160 Ac:			
Gas: 1,500 MM @ \$.160/MCF		\$ 240,000	-
Oil: 30,000 bbl. @ \$ 3.26/bbl.		<u>97,800</u>	-
Total		\$ 337,800	
320 Ac:			
Gas: 1,214 MM @ \$.160/MCF			\$ 194,240
Oil: 24,280 bbl. @ \$ 3.26/bbl.			<u>79,150</u>
Total			\$ 273,390
Less Royalty @ 18.75%		\$ 63,340	\$ 51,261
Less Severance Tax @ 6.5%		<u>17,840</u>	<u>14,439</u>
Revenue to Operator		\$ 256,620	\$ 207,690
<u>Expenses</u>			
Drilling, Completion, & Equipment		\$ 140,000	\$ 70,000
Operating Cost			
160 ac. - 6 years @ \$7,200/year		\$ 43,200	-
320 ac. - 8 years @ \$3,600/year		<u>-</u>	\$ 28,800
Total Expenses		\$ 183,200	\$ 98,800
Net Profit		\$ 73,420	\$ 108,890
Profit Ratio		0.52	1.56

J. C. Raney
9-25-72

BEFORE EXAMINER LUTZ
OIL CONSERVATION COMMISSION

Pennzoil NO. 2

CASE NO. 4832

Submitted by J.C. Raney

Hearing Date 27 Sep 72

AVERAGE RESERVOIR PROPERTIES
SUPERIOR STATE NO. 1
PENNZOIL COMPANY
ROOSEVELT COUNTY, NEW MEXICO

Depth	4,230 feet
Net pay	23 feet
Porosity	6%
Permeability, effective (average)	10 md.
Connate water	28%
Bottom hole pressure (initial)	1,277 psig
Current bottom hole pressure (9-24-72)	1,046 psig
Bottom hole temperature	108° F
Separator gas gravity	0.76
Formation volume factor	95.4 SCF/CF
Oil content	20 B/MMCF
Oil gravity @ 60° F	29° API

29° API

J. C. Raney
9-25-72

BEFORE EXAMINER USE	
OIL CONSERVATION COMMISSION	
Pennzoil	LET NO. 3
CASE NO.	4832
Submitted by	J. C. Raney
Hearing Date	27 Sep 72

JASON W. KELLAHIN
ROBERT E. FOX
W. THOMAS KELLAHIN

KELLAHIN AND FOX
ATTORNEYS AT LAW
500 DON GASPAR AVENUE
POST OFFICE BOX 176
SANTA FE, NEW MEXICO 87501

August 30, 1972

OIL CONSERVATION COMM.
Santa Fe

RECEIVED
TELEPHONE 982-4315
AREA CODE 505

Case 4832

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

Gentlemen:

Enclosed is the application of Pennzoil Company for creation of an associated pool for the Northwest Todd-San Andres Pool, the adoption of pool rules, and approval of a non-standard unit, Roosevelt County, New Mexico.

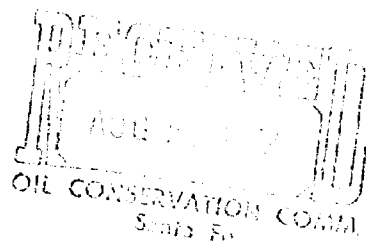
It is requested that this application be set for the earliest available examiner hearing.

Yours very truly,

Jason W. Kellahin
Jason W. Kellahin

JWK:ss

7.15.72



BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF PENNZOIL COMPANY FOR CREATION
OF AN ASSOCIATED POOL FOR THE
NORTHWEST TODD-SAN ANDRES POOL,
ADOPTION OF POOL RULES, AND APPROVAL
OF A NON-STANDARD UNIT, ROOSEVELT
COUNTY, NEW MEXICO

Case 4832

A P P L I C A T I O N

Comes now Pennzoil Company and applies to the Oil Conservation Commission of New Mexico for temporary pool rules, creating an associated pool for the production of oil and gas from the Northwest Todd-San Andres Pool, adoption of pool rules, and approval of a non-standard unit in Roosevelt County, New Mexico, and in support thereof would show the Commission:

1. Applicant is the operator of the Superior State Com Well No. 1, located in Unit L, Section 8, Township 7 South, Range 35 East. N.M.P.M., Roosevelt County, New Mexico, in the Northwest Todd-San Andres Gas Pool. Said pool consists of the W/2 of Section 8.
2. Applicant's well was completed for the production of gas from the San Andres formation, and was connected to a pipeline, and produced as a gas well until the latter part of August, when the well started producing 25° oil, with a gas-oil ratio of 25,000:1.
3. Applicant believes said well will revert to gas production and the gas pool should, therefore, not be abolished.

4. Applicant proposes that the Commission adopt an order providing for:

a. The creation of an associated pool for the production of oil and/or gas from the Northwest Todd-San Andres Pool.

b. Provision for 80-acre spacing and proration units for the production of oil and 320-acre spacing and proration units for the production of gas from said pool.

c. The adoption of a limiting gas-oil ratio of 30,000 cubic feet of gas per barrel of oil.

5. The proposed pool rules should be adopted on a temporary basis for a period of one year, until the producing characteristics of the pool may be fully determined.

6. In order to protect correlative rights, and to permit the owners of interests in the N/2 to continue sharing in production from the subject well and be compensated for drainage from said well, applicant seeks approval of a non-standard oil proration unit consisting of the NW/4 SW/4 and the SW/4 NW/4 of Section 8, Township 7 South, Range 35 East, N.M.P.M., to be dedicated to the Superior State Com Well No. 1.

Approval of the subject application is in the interests of conservation, will result in the recovery of oil and gas that would not otherwise be recovered, and will prevent waste and protect correlative rights.

WHEREFORE applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and after notice and hearing as required by law, the Commission enter its order granting the relief prayed for.

Respectfully submitted,

PENNZOIL COMPANY

By Jason W. Kellahin

KELLAHIN & FOX

P. O. Box 1769

Santa Fe, New Mexico 87501

Attorneys for Applicant

DRAFT

GMH/dr

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. 4832

Order No. R-4441

APPLICATION OF PENNZOIL COMPANY
FOR POOL RECLASSIFICATION, SPECIAL
POOL RULES, AND A NON-STANDARD
PRORATION UNIT, ROOSEVELT COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 27, 1972,
at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this day of October, 1972, the Commission,
a quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

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

(2) That the applicant, Pennzoil Company, seeks the
creation of a new pool for the production of gas from the
San Andres formation for its Superior State "COM" Well No. 1,
located in Unit L of Section 8, Township 7 South, Range 35 East,
NMPM, Roosevelt County, New Mexico.

(3) That the applicant further seeks approval of an 80-acre non-
standard acre proration unit in the subject pool. Comprising the NW1/4 SW1/4
and the SW1/4 NW1/4 of the above-described Section 8 to be dedicated to
the above-described Superior State "Comm" Well No. 1.

(5) ~~14~~ That the evidence presently available established that the subject well is a gas-cap well in the Northwest Todd-San Andres Pool.

(6) ~~15~~ That the evidence presently available further establishes that the Northwest Todd-San Andres Pool should be reclassified as an associated pool and that Special Rules and Regulations should be promulgated therefor.

(7) (6) That the reservoir characteristics of the subject pool indicate that the gas area can be efficiently and economically drained and developed on ³²⁰~~60~~-acre spacing, and that the oil area can be efficiently and economically drained and developed on ⁸⁰~~40~~-acre spacing.

(8) ~~TT~~ That the reservoir characteristics of the subject pool presently available justify the definition of a gas well as a well producing with a gas-liquid ratio of ^{30,000}~~10,000~~ or more cubic feet of gas per barrel of liquid hydrocarbons.

(9) ~~18)~~ That the reservoir characteristics of the subject pool presently available justify the establishment of a gas-liquid ratio limitation of ~~2000~~ ⁵⁰⁰⁰ cubic feet of gas per barrel of liquid hydrocarbons.

110) ~~101~~ That special rules and regulations providing for ³²⁰~~80~~-acre gas well spacing and ⁸⁰~~40~~-acre oil well spacing should be promulgated for the subject pool in order to prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells, and otherwise prevent waste and protect correlative rights.

next page { (13) ~~that~~ the above-described non-standard oil protection unit can be efficiently and economically drained and developed by the subject well.
(14) ~~that~~ that the request for approval for the non-standard oil protection unit should be approved.

160,000
- 100,000
60,000

(11) ~~(10)~~ That the special rules and regulations should provide for the classification of a gas well as a well producing with a gas-liquid ratio of ^{30,000}~~10,000~~ or more cubic feet of gas per barrel of liquid hydrocarbons and should provide for a gas-liquid ratio of ^{5,000}~~2,000~~ cubic feet of gas per barrel of liquid hydrocarbons in order to afford to the owner of each property in the pool the opportunity to produce his just and equitable share of the oil or gas, or both, and for this purpose to use his just and equitable share of the reservoir energy.

(12) ~~(11)~~ That the special rules and regulations should establish proration rules for gas wells in order to prevent waste and protect correlative rights, *and should establish 1500 MCF*

13-14

IT IS THEREFORE ORDERED:

(1) That effective ^{December}~~November~~ 1, 1972, the Northwest Todd-San Andres Pool, as previously defined and described, is hereby reclassified as the Northwest Todd-San Andres Associated Pool, Roosevelt County, New Mexico.

(2) That, effective ^{December}~~November~~ 1, 1972, Special Rules and Regulations for the Northwest Todd-San Andres Associated Pool, Roosevelt County, New Mexico, are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS
FOR THE

Northwest Todd-San Andres ASSOCIATED POOL

RULE 1. Each well completed or recompleted in the Northwest
Todd-San Andres ^{Associated} Pool or in the San Andres formation within one mile thereof, and not nearer to or within the limits of another designated San Andres pool, shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

per day at the maximum allowable gas a gas well located on a standard 320-acre unit.

RULE 2. (a) Each gas well shall be located on a standard unit, ~~containing 80 acres, more or less, substantially in the form of a square, which is a quarter section being a legal subdivision of the United States Public Land Surveys.~~ *Consisting of approximately 32 acres which shall comprise in two contiguous quarter sections of a single governmental section, being a legal subdivision (half section) of the United States Public Land Surveys. For purposes of these rules, a unit consisting of between 316 and 324 contiguous surface acres shall be considered a standard unit.*

(b) Each oil well shall be located on a standard unit containing ~~40~~⁸⁰ acres, more or less, consisting of a governmental ~~quarter~~ quarter section; *provided however, that nothing contained herein shall be construed as prohibiting the drilling of a well on each of the quarter-quarter sections of a unit. For purposes of these rules, a unit*

RULE 3. The Secretary-Director of the Commission may grant an exception to the requirements of Rule 2 (a) without notice and hearing when an application has been filed for a non-standard unit and the unorthodox size or shape of the unit is necessitated by a variation in the legal subdivision of the United States Public Land Surveys, or the following facts exist and the following provisions are complied with:

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

Consisting of between 316 and 324 contiguous surface acres shall be considered a standard unit.

drilled in a known oil productive area
RULE 4. Each well ~~oil or gas~~ shall be located no nearer than 330 feet to any quarter-quarter section line, ~~except that~~ *and* ~~each~~ *any* well drilled in a known gas-productive area shall be located within 150 feet of the center of a quarter-quarter section.

RULE 5. A well shall be classified as a gas well if it has a gas-liquid ratio of ~~10,000~~ ^{30,000} or more cubic feet of gas per barrel of liquid hydrocarbons. A well shall be classified as an oil well if it has a gas-liquid ratio of less than ~~10,000~~ ^{30,000} cubic feet of gas per barrel of liquid hydrocarbons. The simultaneous dedication of any acreage to an oil well and a gas well is prohibited.

RULE 6. That the limiting gas-oil ratio shall be ~~2000~~ ⁵⁰⁰ cubic feet of gas for each barrel of oil produced.

RULE 7. An oil well which has ~~40~~ ⁸⁰ acres dedicated to it shall be permitted to produce only that amount of gas determined by multiplying the top unit oil allowable for the pool by the limiting gas-liquid ratio for the pool. In the event there is more than one oil well on a ~~40~~ ⁸⁰-acre oil proration unit, the operator may produce the allowable assigned to the ~~40~~ ⁸⁰-acre unit from the wells on the unit in any proportion.

located on a standard 320-acre
A gas well shall be permitted to produce ~~that amount~~ *of gas obtained by multiplying the top unit oil allowable for the pool by the limiting gas-liquid ratio for the pool and by a fraction, the numerator of which is the number of acres dedicated to the particular gas well and the denominator of which is 40.* In the event there is more than one gas well on a ~~40~~ ³²⁰-acre gas proration unit, the operator may produce the amount of gas assigned to the unit from the wells on the unit in any proportion.

320
~~40~~ $\times 10000 \times 160$
 $4 \times 10 \text{ MCF} \times 160 = 6400 \text{ MCF for a gas well}$
 $10 \text{ MCF} \times 160 = 1600 \text{ MCF for an oil well}$
 $5 \text{ MCF} \times 160 = 800$

RULE 8. The operator of each newly completed well shall cause a gas-liquid ratio test to be taken on the well upon recovery of all load oil from the well, provided however, that in no event shall the test be commenced later than 30 days from the date of first production unless the well is connected to a gas-gathering facility and is producing under a temporary gas allowable assigned in accordance with Rule 11. Any well which is shut in shall be exempted from the gas-liquid ratio test requirement so long as it remains shut in. The initial gas-liquid ratio test shall be taken in the manner prescribed by Rule 9. If the gas-liquid ratio is ^{30,000}~~10,000~~ cubic feet of gas per barrel of liquid hydrocarbons, or more, the operator shall not produce the well until beneficial use can be made of the gas.

RULE 9. Gas-liquid ratio tests shall be taken on all wells during the month of November of each year. The initial gas-liquid ratio test shall suffice as the first annual test. Tests shall be 24-hour tests, being the final 24 hours of a 72-hour period during which the well shall be produced at a constant normal rate of production. Results of such tests shall be filed on Commission Form C-116 on or before the 10th day of the following month. At least 72 hours prior to commencement of any such gas-liquid ratio tests, each operator shall file with the appropriate district office of the Commission a test schedule for its wells specifying the time each of its wells is to be tested. Copies of the test schedule shall also be furnished to all offset operators. ^{7/10}Commission District supervisors may grant exceptions to the above test requirements where it is demonstrated that wells produce no liquids.

Special tests shall also be taken at the request of the Secretary-Director and may also be taken at the option of the operator. Such special tests shall be taken in accordance with the procedures outlined hereinabove, including notification to the Commission and offset operators.

RULE 10. An initial shut-in pressure test shall be taken on each gas well and shall be reported to the Commission on Form C-125.

RULE 11. Any well completed after the effective date of these rules shall receive an allowable only upon receipt by the appropriate Commission district office of Commission Forms C-104 and C-116, properly executed. The District Supervisor of the Commission's district office is hereby authorized to assign a temporary gas allowable to wells connected to a gas transportation facility during the recovery of load oil, which allowable shall not exceed the number of cubic feet of gas obtained by multiplying the daily top unit allowable for the pool by the limiting gas-liquid ratio for the pool.

RULE 12. That the initial gas proration period shall be from 7:00 a.m. December 1, 1972 to 7:00 a.m. January 1, 1974. Subsequently, the date 7:00 a.m. January 1 of each year shall be known as the balancing date, and the twelve months following this date shall be known as the gas proration period.

RULE 13. Any gas 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.

RULE 14. 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

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be cancelled.

RULE 15. 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 compensated for during such succeeding period. Any well which has not compensated for the overproduction carried into a gas proration period by the end of such proration period shall be shut in until such overproduction is compensated for. If, at any time, a well is overproduced an amount equalling three times its current monthly allowable, it shall be shut in during that month and each succeeding month until the well is overproduced less than three times its current monthly allowable.

RULE 16. The allowable assigned to a well during any one month of a gas proration period in excess of the production for the same month shall be applied against the overproduction carried into such period in determining the amount of overproduction, if any, which has not been compensated for.

RULE 17. The Commission may allow overproduction to be compensated for at a lesser rate than would be the case if the well were completely shut in upon a showing after notice and hearing that complete shut in of the well would result in material damage to the well or reservoir.

RULE 18. The monthly gas production from each gas well shall be metered separately and the gas production therefrom shall be reported to the Commission on Form C-115 so as to reach the Commission on or before the 24th day of the month next succeeding the month in which the gas was produced. The operator shall show on such report what disposition has been made of the produced gas.

RULE 19. Each purchaser or taker of gas shall submit a report to the Commission so as to reach the Commission on or before the 15th day of the month next succeeding the month in which the gas was purchased or taken. Such report shall be filed on Form C-111 with the wells being listed in the same order as they are listed on the appropriate proration schedule.

RULE 20. Failure to comply with any provision of these rules shall result in the immediate cancellation of allowable assigned to the affected well. No further allowable shall be assigned until all rules and regulations have been complied with. The Secretary-Director shall notify the operator of the well and purchaser in writing of the date of allowable cancellation and the reason therefor.

RULE 21. All transporters or users of gas shall file gas well-connection notices with the Commission as soon as possible after the date of connection.

RULE 22. Allowables to wells whose classification has changed from oil to gas or from gas to oil as the result of a gas-liquid ratio test shall commence on the first day of the month following the month in which such test was reported, provided that a plat (Form C-102) showing the acreage dedicated to the well and the location of all wells on the dedicated acreage has been filed.

IT IS FURTHER ORDERED:

(1) That the locations of all wells presently drilling to or completed in the Northwest Todd-San Andres Associated Pool or in the San Andres formation within one mile thereof are hereby approved; that the operator of any well having an unorthodox location shall notify the appropriate district office of the

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Commission in writing of the name and location of the well on

or before December 1, 1972 December

(2) That all operators shall, prior to December 1, 1972 file with the Commission Form C-102 for each well showing the acreage dedicated to the well.

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

(3) That an 80-acre non-standard oil production unit in the Northwest Todd-San Andres Associated Pool comprising the NW 1/4 SW 1/4 and the SW 1/4 NW 1/4 of Section 8, Township 7 South, Range 35 East, NMPM, Roosevelt County, New Mexico, is hereby established and ^{shall be} dedicated to the Permian Company Superior State "Com" well No. 1 located in Unit 1 of said Section 8, upon reclassification of said well as an ^{oil well}.

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

Perjoice

10,000 GOR

30,000 Classification