

CASE 5735: CONTINENTAL OIL CO.
TO AMEND ORDER NO. R-1234, LEA
COUNTY, NEW MEXICO

CASE NO.

5735

APPLICATION,
TRANSCRIPTS,
SMALL EXHIBITS,
ETC.

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. 5735
Order No. R-5268

APPLICATION OF CONTINENTAL OIL
COMPANY FOR A SPECIAL GAS-OIL
RATIO LIMITATION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 18, 1976, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 16th day of September, 1976, 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, Continental Oil Company, seeks the amendment of Rule 19 of the Special Rules for the Warren-Tubb Gas Pool promulgated by Order No. R-1234, to provide for an increase in the gas-oil ratio limitation for oil wells in said pool to 6,000 to one.

(3) That the Warren-Tubb Gas Pool is not fully defined.

(4) That the Warren-Tubb Gas Pool presently consists of 5 completed gas wells and 9 completed oil wells.

(5) That the applicant seeks the aforesaid higher gas-oil ratio limitation for said pool in order that the oil production therefrom will not be restricted as a result of oil well allowable adjustments due to excessive (over 2,000 to 1) individual well gas-oil ratios.

(6) That the applicant contends that such restriction of takes from the oil wells will cause the upward migration of the gas-oil contact toward the gas wells thereby causing waste of oil through the resultant "wetting" of "dry" sands.

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Case No. 5735
Order No. R-5268

(7) That at this time only one oil well is experiencing such a restricted allowable.

(8) That the applicant is the only operator in the Warren-Tubb Gas Pool.

(9) That the Warren-Tubb Gas Pool lies wholly within the Warren Unit operated by the applicant.

(10) That as operator of the Warren Unit and the sole operator in the Warren-Tubb Gas Pool, the applicant can operate all wells within said pool in such a manner as to prevent the upward migration of the gas-oil contact therein without the relief sought in this application.

(11) That production of gas from wells in excess of a gas-oil ratio of 2,000 to one in said Warren-Tubb Gas Pool may result in the inefficient use of reservoir energy therein.

(12) That denial of this application will not violate correlative rights and may prevent waste.

(13) That the application should be denied.

IT IS THEREFORE ORDERED:

(1) That the application of Continental Oil Company for an amendment of Rule 19 of the Special Rules for the Warren-Tubb Gas Pool to provide for a gas-oil ratio limitation of 6,000 to 1 is hereby denied.

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

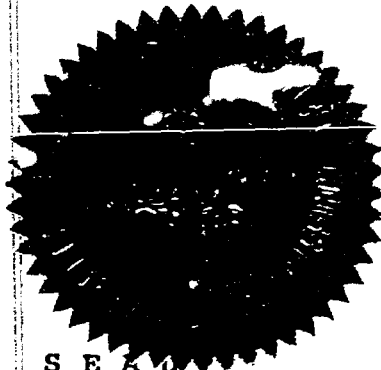
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member


JOE D. RAMEY, Member & Secretary



S E A L

dr/

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date AUGUST 18, 1976 TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
V. T. Lyon	Conoco	Holls
Jim Knaut	U. S. G. S.	Artesia
Brian McCay	Self	Roswell
Paul Cooley	Alford & Malone (Miles)	Artesia
Jason Kellah	Kellah & Fox	Artesia
J. W. Neal	Snyder Ranches	Holls
Ernest M. Maddux	MADDUX, MADDUX & Co. (Pollution Control, Inc.)	Holls
Ray Buck	Veter's Pet	Artesia
Joel M. Carson	Loose & Carson P.A.	Artesia
Bob SLEDGE	El Paso Natural	El Paso
E. R. Manning	El Paso Natural Gas	El Paso
Borden Kelly	United K&L	SF
DON R CRAIG	TEYACO	HOBBS
J. B. Swinney	TEYACO	HOBBS
D. L. Loney	Pollution Control, Inc.	HOBBS
M. L. Cepelaud	Group of Oil Corporations	Midland, Tex.
J. B. Shroder	" " "	" "
R. H. Thomas	" " "	" "

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICOHearing Date AUGUST 18, 1976 TIME: 9:00 A.M.

NAME	REPRESENTING	LOCATION
<i>J.P. Hutchison</i>	<i>Gulf Oil Corp</i>	<i>MIDLAND, TX</i>
<i>CHARLES F. KALTEYER</i>	<i>GULF OIL CORP</i>	<i>MIDLAND TX</i>
<i>K.A. FREEMAN</i>	<i>TAHOE OIL & CATTLE CO</i>	<i>MIDLAND, TX,</i>
<i>Chester F. SKRABACZ</i>	<i>Ed L. Reed & ASSOCIATES</i>	<i>Midland, Tex</i>
<i>Ray Graham</i>	<i>State Land, etc.</i>	<i>Santa Fe.</i>

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
August 18, 1976

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil Company) CASE
to amend Order No. R-1234, Lea County,) 5735
New Mexico.)

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARINGA P P E A R A N C E S

For the New Mexico Oil Conservation Commission: William F. Carr, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

For the Applicant: Jason W. Kellahin, Esq.
KELLAHIN & FOX
Attorneys at Law
500 Don Gaspar
Santa Fe, New Mexico

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I N D E X

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VICTOR T. LYON

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EXHIBIT INDEX

Offered Admitted

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1 MR. STAMETS: We will proceed with the hearing and
2 call first Case 5735.

3 MR. CARR: Case 5735, application of Continental Oil
4 Company to amend Order No. R-1234, Lea County, New Mexico.

5 MR. KELLAHIN: If the Examiner please, Jason Kellahin,
6 Kellahin and Fox, Santa Fe, appearing for the applicant and we
7 have one witness to be sworn.

8 (THEREUPON, the witness was duly sworn.)

9
10 VICTOR T. LYON
11 called as a witness, having been first duly sworn, was
12 examined and testified as follows:

13
14 DIRECT EXAMINATION

15 BY MR. KELLAHIN:

16 Q Would you state your name, please?

17 A Victor T. Lyon, L-y-o-n.

18 Q By whom are you employed and in what position,
19 Mr. Lyon?

20 A I'm Conservation Cordinator for Continental Oil
21 Company in the Hobbs Division Office located in Hobbs,
22 New Mexico.

23 Q Have you testified before the Oil Conservation
24 Commission and made your qualifications a matter of record?

25 A Yes, I have.

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1 MR. KELLAHIN: Are the witness' qualifications
2 acceptable?

3 MR. STAMETS: They are.

4 Q (Mr. Kellahin continuing.) Mr. Lyon, are you familiar
5 with the application of Continental Oil Company in Case 5735?

6 A Yes, I am.

7 Q What is proposed by the applicant in this case?

8 A Case 5735 is the application of Continental Oil
9 Company for amendment of Order No. R-1234, containing the
10 special pool rules of the Warren Tubb Gas Pool in respect to
11 Rule 19 which sets the limiting gas-oil ratio for the pool.

12 Q What is the present gas-oil ratio?

13 A The present limiting gas-oil ratio is two thousand
14 cubic feet per barrel.

15 Q And what is Continental proposing?

16 A We are proposing six thousand.

17 Q Now, referring to what has been marked as Exhibit
18 Number One would you identify that exhibit?

19 A Exhibit Number One is a plat showing by the heavy
20 dashed line the outline of the Warren Unit which is operated
21 by Continental Oil Company. As shown it contains parts or
22 all of Sections 20, 21, 22, 25, 26, 27, 28, 29, 33, 34, 35 in
23 Township 20 South, Range 38 East, Lea County, New Mexico.

24 The red outline shows the presently defined Warren
25 Tubb Gas Pool. The Unit is also marked with a hachure symbol

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1 and there is also other acreage outside of the outline which
2 is hachured and this is owned by the New Mexico Federal Unit
3 for the Southeast Monument Unit which is the same ownership
4 as the Warren Unit.

5 Q Both of those are operated by Continental Oil Company?

6 A Yes, they are. And I have marked with a red circle
7 the wells which are completed and producing from the Warren
8 Tubb Gas Pool. As you can see there are five gas wells, those
9 are Wells No. 8, 9, 10, 26 and 35, essentially on the western
10 side of the pool. The remainder of the wells are classified
11 as oil wells.

12 The Pool has been a gas pool from its discovery in
13 1957 until the completion of Well No. 31 which is located in
14 Unit O of Section 27 in November of 1974 and since that time
15 there have been, as you can see, a number of oil wells drilled
16 and one additional gas well drilled within the pool boundaries.

17 Q Now, do you plan to drill some more wells in this
18 area?

19 A Yes, we show on this Exhibit, Well No. 42 which is
20 an open location in Unit I of Section 27 and No. 43 in
21 Unit N of Section 21. These wells are expected to be
22 drilled in the very near future.

23 Q Now, two of the wells are outside of the presently
24 defined boundaries of the Pool, are they not?

25 A Yes, sir. Well No. 35 which is the most recent gas

1 well and No. 40 are outside of the present pool boundary.

2 Q Now, referring to what has been marked as Exhibit
3 Number Two would you discuss that exhibit?

4 A Exhibit Number Two is a structure map showing the
5 configuration of the top of the Tubb formation with a contour
6 interval of fifty feet. As you can see, the gas wells are
7 located on the structural high which is a northwest-southeast
8 trending anticline covering approximately two sections. Again
9 the Tubb wells are shown with the traditional well symbol and
10 a circle enscribed around it.

11 As you can see, the gas wells are at the top of
12 the structure, the oil wells are on the flank, on the eastern
13 flank of the structure.

14 Again, Well No. 42 and 43 are shown just by the
15 simple open well location symbol. The wells which are proposed
16 for drilling in the remainder of 1976 are shown by an open
17 circle. There is one in M of 26, one in A of 28, A of
18 29 and M of 21. These are proposed locations. The small
19 squares are locations of wells which are proposed for 1977.

20 Q Now, these are subject to change, are they not?

21 A Yes, as we gain additional information through
22 drilling, these locations, of course, are subject to change.

23 A Now, your No. 41 well is that the highest
24 structurally?

25 A No. 41 is the highest structural oil well in the

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1 pool.

2 Q Would that be close to the gas-oil contact?

3 A It appears to be at or very close to the gas-oil
4 contact.

5 Q What is the status of that well at the present time?

6 A Well, the well produced considerably more than its
7 casinghead gas allowable during its first three months of
8 production and it is presently shut in for over-production.

9 Q Now, referring to what has been marked as Exhibit
10 Number Three would you identify that exhibit?

11 A Exhibit Number Three is a history of the production
12 of the Warren Tubb Gas Pool. I see there is a typographical
13 error up there. That should be 1957 instead of 1975. Beginning
14 in 1957 and through 1975 on an annual basis and then each
15 month during 1976 on which we have data. As you can see, the
16 initial GOR is recorded at two thousand and thirty-two. Now,
17 that was a long time ago and I don't know whether that gas-oil
18 ratio is actually indicative of the actual production at that
19 time, we have no way of verifying it now but if it was
20 representative it had a very rapid increase to thirty-nine
21 thousand and since that time the pool has had a gas-oil ratio
22 from a high of about sixty-six thousand to a low of some
23 thirty-one thousand, until 1975 when there were five oil wells
24 completed in the pool and the gas-oil ratio dropped to sixteen
25 thousand and it has been at or below that ratio since then,

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1 during 1976.

2 The exhibit shows the year and then the gas
3 production for the year from the total pool and then the oil
4 production, the gas-oil ratio and then the number of wells so
5 that you can see with the increased drilling in there the
6 gas-oil ratio has dropped.

7 Q Now, referring to what has been marked as Exhibit
8 Number Four would you identify that exhibit?

9 A Exhibit Number Four is a tabulation showing the
10 production from the pool during the month of June 1976. We
11 have listed at the top of the exhibit the oil and gas and the
12 GOR for the gas wells and then at the lower part that of the
13 oil wells. As you can see, the gas wells averaged one hundred
14 and thirty-two thousand and sixty-nine GOR. The oil wells
15 averaged six thousand, two hundred and ninety-seven GOR for
16 a total pool average of sixteen thousand, one hundred and
17 sixty-one. Since No. 41 was quite a large contributor to the
18 gas it has influenced the gas-oil ratio for all of the oil
19 wells. If you subtract Well No. 41, the gas-oil ratio
20 averages three thousand and thirty for the remaining oil wells.
21 Now, the ratios vary among the oil wells from a low of four
22 hundred and seventy-two for No. 41, which is a low-volume
23 producer to a high of twenty-seven thousand for No. 41.

24 The gas-oil ratios in the gas wells vary from, well,
25 infinity for No. 35 down to a low of thirty-eight thousand for

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1 No. 26.

2 Q Now, at the time the original two thousand to one
3 GOR was set what was the status of the pool?

4 A Well, at that time, of course, we had nothing but
5 gas wells. Historically the two thousand to one GOR which has
6 been used on a state-wide basis for many, many years occurred
7 at a time when most reservoirs had a GOR of a thousand or less
8 and so the two thousand GOR gave them considerable flexibility
9 above the solution ratio and No. 31, the discovery oil well in
10 this reservoir had an initial GOR of two thousand, one hundred
11 and fifty-one, so I think it is entirely reasonable for a GOR
12 in this pool to be set at five thousand to six thousand.

13 Q What is the effect of a low GOR?

14 A Well, the low GOR would serve to inhibit production
15 from the oil reservoir when reason tells us that the oil
16 production should not be inhibited but should be accelerated.
17 Now, we must recognize, if we go back to Exhibit Three, that
18 there has been fourteen billion cubic feet of gas produced from
19 the gas cap in this reservoir and this was done at a time when
20 we did not know that there was an oil reservoir and to a large
21 extent this production has been used to gas lift the oil wells
22 in the Warren McKee Pool. Now, the Warren McKee Pool has a
23 very serious sand production problem and gas lift is the
24 only practicable way of producing the oil and because of its
25 use as a gas lift source and because there was no indication

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1 of an oil rim we have not taken bottom-hole pressures as we
2 might have had we known that the oil rim was present.

3 Now, in support of this application and our request
4 for a relaxation of the gas-oil ratio, we would like to propose
5 a program for the operation of the pool containing six points.

6 One, the pool is entirely contained within the
7 Warren Unit and consequently there are no correlative rights
8 problem involved.

9 Two, in order to promote the production of the
10 maximum amount of recoverable oil, we believe it is desirable
11 to achieve as soon as possible a pressure differential between
12 the oil and gas phases which are favorable to oil recovery,
13 which means a higher pressure in the gas cap than in the oil
14 reservoir.

15 Three, the best and most efficient manner of
16 accomplishing this is to accelerate production from the oil
17 reservoir and to hold constant or curtail production from the
18 gas cap.

19 Four, since the extent of the oil rim is not known
20 there is no way to estimate the relative volumes of the oil
21 and gas reservoirs, therefore, it is proposed to develop the
22 oil rim as rapidly as we practicably can and produce these
23 wells at a maximum rate.

24 Five, when the pool area has been defined by drilling,
25 volumetric studies will be made to determine the ratio of

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1 withdrawals which should be made in the pool to assure that
2 the gas cap does not suffer further shrinking.

3 And, six, we are undertaking studies to determine
4 the most efficient use of gas from the reservoir for the
5 production of Warren McKee oil by gas lift and selection of
6 the wells to be produced with the relative load or the relative
7 producing rate of each to be determined for the best control
8 of the gas-oil contact.

9 In connection with this we believe that the
10 production from Well No. 41 should not be unduly restrictive
11 because of its high oil-gas ratio. We feel that there is a
12 possibility that this location has been invaded by encroaching
13 oil resulting from the possible shrinkage of the gas cap and
14 that the best way, the most efficient way, of producing the
15 oil in this re-saturated zone is to produce the wells which
16 are located in that re-saturated zone and we are in the process
17 of making arrangements for bottom-hole pressure measurements
18 that will be used in the studies that can be conducted when
19 the pool has been fully defined.

20 Q Now, is that the purpose of the wells which you have
21 shown as prospective wells under Exhibit Number Two?

22 A Yes, to further the development of the pool as
23 rapidly as we can.

24 Q Now, is the ownership common throughout this area,
25 Mr. Lyon?

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1 A. Yes, it is.

2 Q. There is no possibility of violating any correlative
3 rights by changing the GOR?

4 A. Right.

5 Q. In your opinion will it cause any damage to the
6 reservoir to institute a six thousand to one ratio?

7 A. I think not. I think that eventually it will result
8 in the prevention of waste.

9 Q. It will prevent waste in what manner?

10 A. Well, by increasing the rate of withdrawal from the
11 oil reservoir and also to permit production of oil at the
12 re-saturated zone where the gas-oil contact may have encroached.

13 Q. That will enable the operator to recover oil
14 that would not otherwise be recovered?

15 A. Yes, I think it would.

16 Q. Were Exhibits One through Four prepared by you or
17 under your supervision?

18 A. Yes, they were.

19 MR. KELLAHIN: At this time I would like to offer
20 Exhibits One through Four, inclusive.

21 MR. STAMETS: These exhibits will be admitted.

22 (THEREUPON, Applicant's Exhibits One
23 through Four were admitted into evidence.)

24 MR. STAMETS: Any questions of the witness?

25

CROSS EXAMINATION

1
2 BY MR. STAMETS:

3 Q Mr. Lyon, do you have any indication as of this
4 time what the extent of this reservoir will be?

5 A No, we feel that it is entirely contained within the
6 Warren Unit and at this time we can't make any predictions as
7 to the exact areal extent, we just drill them one at a time.

8 Q How long do you think it is going to take you to
9 develop this prospect?

10 A Well, it might take, you know, just the next well.
11 Hopefully we will have it developed during 1977 but then it
12 would be nice if it was to go on too. It's been a nice shot
13 in the arm for our production.

14 Q And if I understood your testimony correctly what
15 you said was that until you have the reservoir more fully
16 developed you really won't be able to tell what's the best
17 way to operate?

18 A Yes, sir, that is correct. I envision that when
19 we get the pool defined that we very well may be back up here
20 to ask for some special rule, perhaps even for a net GOR or
21 gas re-injection or any of a number of things which may be
22 indicated by the study that has been commenced.

23 Q Has any thought been given to re-injecting this
24 produced gas at the present time?

25 A Yes, there has been some thought about it.

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- 1 Q Why haven't you proposed to do that at this time?
- 2 A We have just not got that far along.
- 3 Q Since 1957?
- 4 A Well, in 1957 we were dealing with just the gas
- 5 wells or a gas well and since until 1974 a number of gas wells.
- 6 Q Was there any restrictions in the production of
- 7 these gas wells prior to the discovery of oil?
- 8 A No.
- 9 MR. RAMEY: Is there any restrictions on them now?
- 10 A No.
- 11 Q (Mr. Stamets continuing.) Are these gas wells
- 12 not governed by the oil allowable times the gas-oil ratio?
- 13 A I don't think so. This has been a gas reservoir
- 14 and it is unprorated and there just hasn't been an allowable
- 15 set.
- 16 Q How about the oil wells?
- 17 A The oil wells, of course, are governed by the
- 18 state-wide rules and by the special pool rules.
- 19 Q And this is the same reservoir between the gas wells
- 20 and the oil wells?
- 21 A Yes.
- 22 Q All right, now, you indicated that the way to take
- 23 care of this was to accelerate the oil rate and hold down the
- 24 gas rate, how do you propose to hold down the gas rate?
- 25 A We're looking into that. We would like to optimize

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1 our gas lift gas withdrawals so that we can use the least
2 amount of gas and still recover the oil which is being produced
3 in the Warren McKee. Now, I think this calls for conservation
4 of the gas because we expect to begin next year a waterflood
5 project in the Warren McKee and when that project begins to
6 bear fruit the gas lift requirement is going to increase and,
7 therefore, in my opinion, we are going to need this gas and so
8 I have been urging my management to look at the conserving of
9 the gas for right now.

10 Q What is the current gas rate from these wells, from
11 the gas wells? That is reflected on your Exhibit Number Four?

12 A Yes.

13 Q It looks like the biggest rate then is forty-two
14 million on Well No. 35?

15 A Right.

16 Q So that is going to be not quite one-and-a-half
17 million a day. What is the oil allowable in the Warren Tubb
18 Pool.

19 A Let's see, I believe it is one hundred and forty-two,
20 one point seven seven times eight. One hundred and forty-two.

21 Q One hundred and forty-two, multiply that by six
22 thousand.

23 A Eight hundred and fifty-two thousand.

24 Q Eight, fifty-two. Subsequent to this hearing the
25 Commission determined that that was one pool and the same rules

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1 ought to apply and require the acreage to be reduced on the
2 gas wells at forty and limited the production there to six
3 thousand to one, that tends to limit the gas production from
4 the gas cap. It might help you with your efforts if
5 necessary.

6 A. It could.

7 Q. How long do you think it's going to take before you
8 are in some kind of a shape to go ahead with the gas re-injection
9 project, would a year cover this?

10 A. It depends a lot on how soon we can define that
11 reservoir.

12 Q. Would a temporary six thousand to one gas-oil ratio
13 be an acceptable alternative in this particular case?

14 A. I think so.

15 Q. Giving you a year then to evaluate and develop the
16 reservoir and come forward with a unified plan of operation?

17 A. We would be glad to come back in a year and give
18 you either a definite plan or at least a progress report on
19 what we have done.

20 MR. STAMETS: Are there any other questions of the
21 witness? Mr. Ramey?

22

23

CROSS EXAMINATION

24 BY MR. RAMEY:

25 Q. Mr. Lyon, what is the casinghead gas allowable for

1 an oil well for the month of June?

2 A. For the month of June?

3 Q. Yes. Would it be eighty-five, twenty MCF?

4 A. It looks like it was twenty-five -- you mean per
5 day?

6 Q. For the month.

7 A. For the month. It looks like twenty-five thousand,
8 five hundred and sixty MCF. Oh, wait a minute, excuse me,
9 eighty-five, twenty, right.

10 Q. So in essence you are seeking relief for one oil well?

11 A. Essentially that is right.

12 Q. Which is on the gas-oil contact?

13 A. Right, very close to it. We also, if you look back
14 at Exhibit Two, we have some locations which according to our
15 present structural interpretation may be near this gas cap
16 too, so I don't think 41 is going to be the only high GOR
17 well. So we are not looking at just this well really, we are
18 looking at additional high GOR wells which may be completed.
19 Hopefully they won't be that high but we don't have that good
20 of control.

21 Q. Would you agree for a maximum recovery of oil out
22 of this pool if the gas cap should be shut in?

23 A. Well, I don't know of any other pool that the
24 Commission has shut in the gas cap and if you look at the
25 pools with gas caps the Commission has set much higher G'

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1 limits than we are asking for here.

2 Q In these other pools aren't there questions of
3 correlative rights?

4 A Yes.

5 Q And in this case the gas cap could be shut in
6 without correlative rights being violated?

7 A Well, the problem is that if you shut in the gas
8 cap here you will shut in our Warren McKee oil production.

9 Q I realize that. Thank you, Mr. Lyon.

10 MR. STAMETS: Any other questions of the witness?

11 Anything further in this case?

12 MR. KELLAHIN: Thank you, nothing further.

13 MR. STAMETS: The witness may be excused.

14 (THEREUPON, the witness was excused.)

15 MR. STAMETS: The case will be taken under advisement.

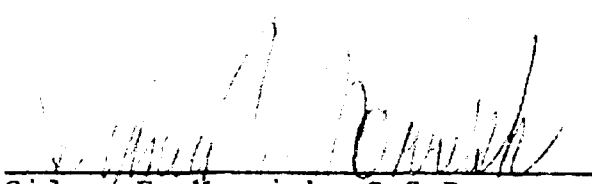
sid morrison reporting service

General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

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REPORTER'S CERTIFICATE

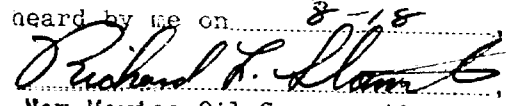
I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.


Sidney F. Morrish, C.S.R.

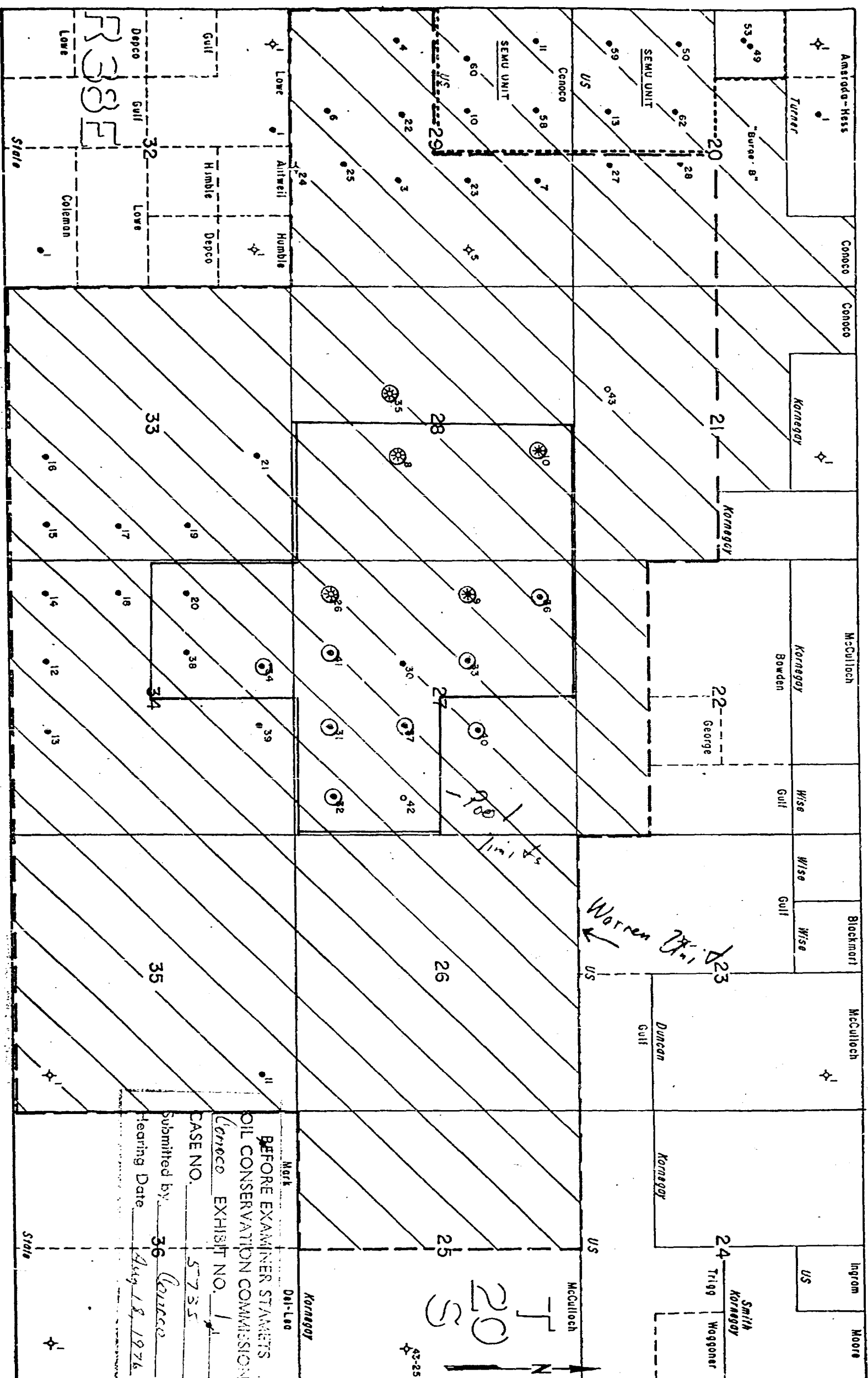
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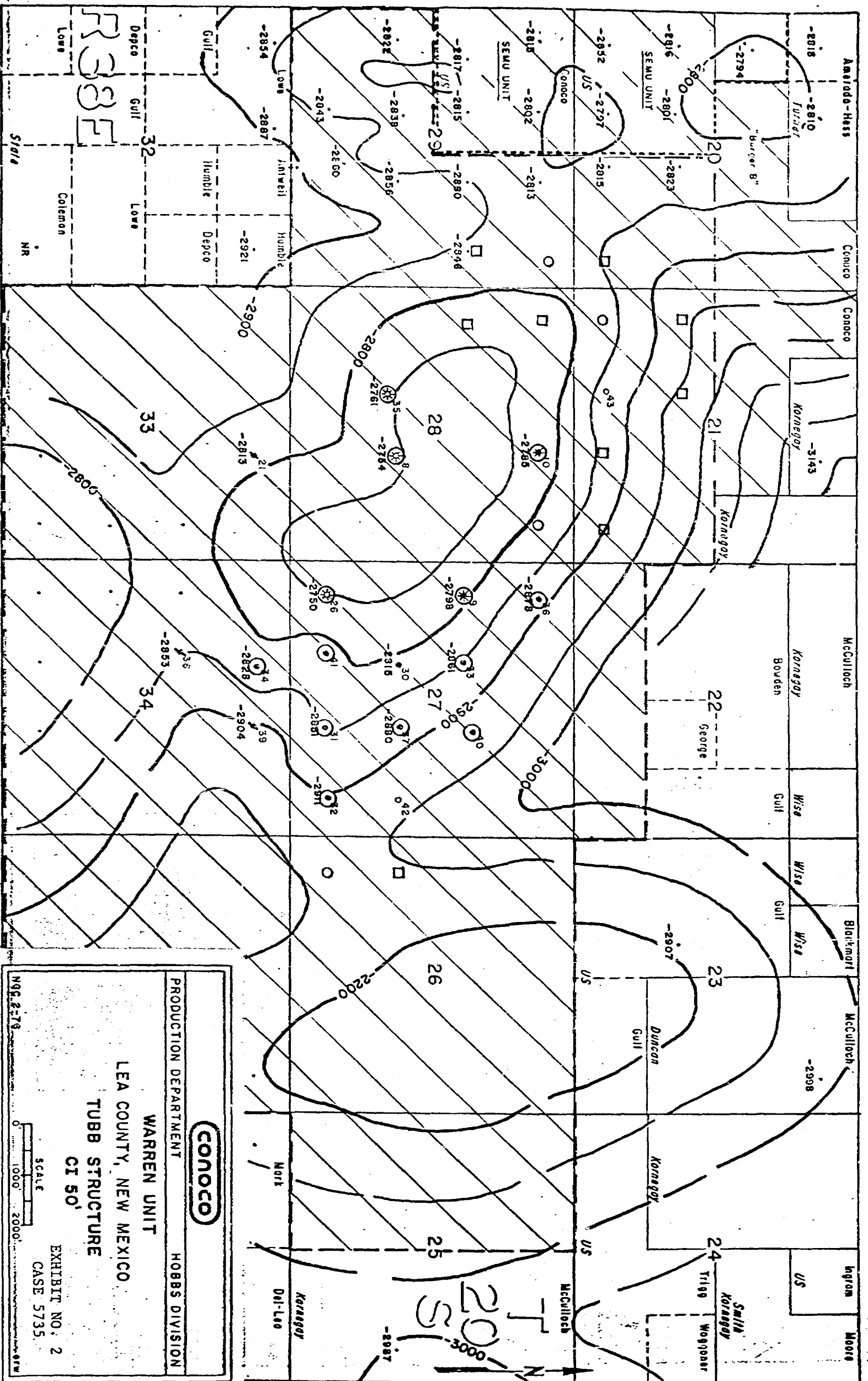
General Court Reporting Service
825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 5735-
heard by me on 8-18 19 76.


Richard D. Slane, Examiner
New Mexico Oil Conservation Commission

- CASE 5735: Application of Continental Oil Company to amend Order No. R-1234, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Rule 19 of the Special Rules for the Warren Tubb Gas Pool promulgated by Order No. R-1234, to provide for an increase in the gas-oil ratio limitation for oil wells in said pool to some figure not to exceed 10,000 to one.
- CASE 5736: Application of BCO Inc. for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Basin Dakota Gas Pool and Lybrook-Gallup Oil Pool and undesignated Greenhorn and Mancos production in the wellbore of its Dunn Well No. 2, located in Unit F of Section 10, Township 23 North, Range 7 West, Rio Arriba County, New Mexico.
- CASE 5737: Application of Howard Boatright Company for amendment of Order No. R-5208, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5208 which authorized salt water disposal into the Delaware formation through applicant's State CS Well No. 1 located in Unit L of Section 17, Township 21 South, Range 27 East, Eddy County, New Mexico. Applicant seeks to increase the maximum wellhead injection pressure for said well from 400 psi to 800 psi.
- CASE 5709: Application of Tahoe Oil and Cattle Company for an exception to the provisions of Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to construct and operate an earthen salt water disposal pit in the NE/4 SW/4 of Section 2, Township 20 South, Range 30 East, Eddy County, New Mexico.
- CASE 5738: Application of Hayes Oil Company for a non-standard proration unit and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 240-acre non-standard gas proration unit comprising the NE/4 and N/2 SE/4 of Section 18, Township 20 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a Morrow test well proposed to be drilled at an unorthodox location for said unit at a point 1960 feet from the South line and 660 feet from the East line of said Section 18.
- CASE 5739: Application of William G. McCoy for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its McCord Well No. 1 to be drilled at a point 660 feet from the North and East lines of Section 22, Township 23 South, Range 26 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico.
- CASE 5740: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying Section 28, Township 24 South, Range 26 East, Eddy County, New Mexico, to be dedicated to applicant's White City Penn Gas Com. Unit No. 3 Well No. 1, to be drilled at a point 2310 feet from the North and West lines of said Section 28. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
- CASE 5741: Application of Gulf Oil Corporation for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority for the directional drilling of three wells on its Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico, all in Section 33, Township 21 South, Range 37 East, as follows: Well No. 406, surface location 2200 feet from the South line and 1470 feet from the East line, bottom-hole location 2390 feet from the South line and 870 feet from the East line; Well No. 407, surface location 1475 feet from the South line and 1440 feet from the East line, bottom-hole location 1110 feet from the South line and 700 feet from the East line; Well No. 420, surface location 2300 feet from the South line and 1520 feet from the East line, bottom-hole location 1790 feet from the North line and 1030 feet from the East line. All of the above wells would be bottomed within 100 feet of the above-described bottom-hole locations.
- CASE 5742: Application of Gulf Oil Corporation for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard Blinberry gas proration unit comprising the S/2 NW/4 and W/2 NE/4 of Section 28, Township 21 South, Range 37 East, Lea County, New Mexico, to be simultaneously dedicated to applicant's Eunice King Wells Nos. 5 and 24, located, respectively, 1874 feet from the North and West lines, and 2086 feet from the North line and 760 feet from the West line of said Section 28. Applicant further seeks authority to later substitute its Eunice King Well No. 15, located 2086 feet from the North and West lines of said Section 28 for the aforesaid Well No. 5 in the above-described simultaneous dedication.
- CASE 5743: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit John W. Adams, Executor of Estates of R. W. and June Adams; and Ruth McGahey, Fred McGahey and David McGahey dba Adams & McGahey, American Employers' Insurance Company, and all other interested parties to appear and show cause why the following wells located in Township 21 North, Range 30 East, Harding County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program:
- Gonzales Well No. 2, located in Unit P of Section 9; Adams & McGahey Well No. 1, located in Unit B of Section 16; and Gonzales "A" Well No. 1, located in Unit H of Section 32.





CONOCO

PRODUCTION DEPARTMENT HOBBS DIVISION

WARREN UNIT

LEA COUNTY, NEW MEXICO

TUBB STRUCTURE

CI 50'

EXHIBIT NO. 2

CASE 5735

SCALE

0 1000 2000

NGC 2-78

WARREN TUBB GAS POOL
PRODUCTION HISTORY

Year-Month	Gas	Oil	G.O.R.	No. Wells
1954				
1975				
8	63,275	31,139	2,032	1
9	520,351	13,291	39,151	2
60	362,441	9,063	39,991	4
1	551,352	12,225	45,100	4
2	328,306	10,490	31,297	4
3	795,337	17,992	44,205	4
4	787,126	11,906	66,118	4
5	1,000,031	18,757	53,315	4
6	1,174,682	21,594	54,399	4
7	1,214,548	22,893	53,053	4
8	1,115,457	20,036	55,673	4
9	943,028	23,078	40,863	4
70	972,512	20,201	48,142	4
1	939,742	17,720	53,033	4
2	655,459	14,444	45,379	4
3	781,147	15,222	51,317	4
4	800,878	14,124	56,703	4
5	730,208	13,710	53,261	5
	843,430	52,482	16,071	9
1976				
Jan.	89,248	12,994	6,868	9
Feb.	144,849	9,856	14,696	10
Mar.	118,898	13,350	8,906	10
Apr.	215,842	13,050	16,540	12
May	199,316	12,938	15,405	13
Jun.	195,340	12,087	16,161	13

Exhibit No. 3

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 3
CASE NO. 5735
Submitted by Conoco
Hearing Date Aug. 18, '76

WARREN TUBB GAS POOL
JUNE 1976 PRODUCTION BY WELLS

<u>Gas Wells</u>	<u>Oil</u>	<u>Gas</u>	<u>GOR</u>
8	236	31,832	134,881
9	236	16,384	69,424
10	84	19,427	231,274
26	392	14,922	38,066
35		42,636	inf.
	948	125,201	132,069

Oil Wells

31	1,230	3,787	3,079
32	1,955	5,762	2,947
33	1,086	7,494	6,901
34	603	1,252	2,076
36	2,702	8,041	2,976
37	1,713	2,339	1,365
40	362	171	472
41	1,488	40,893	27,482
	11,139	70,139	6,297
	12,087	195,340	16,161

Exhibit No. 4

142
284
30
8520

BEFORE EXAMINER STAMETS
OIL CONSERVATION COMMISSION
EXHIBIT NO. 4
CASE NO. 5735
Submitted by Conoco
Hearing Date Aug. 18, '76

Memo

Care 5735

From

D. S. NUTTER

CHIEF ENGINEER

To: *Mr. L. H. Jones*

*Appl. of Gould Oil Co. to
Amend Order No. K-1734
Rea County
Applicant, in the above styled case,
seeks the amendment of
para. 19 of the Special Order
for the Warren-Tuba-gan
Pool promulgated by Order
No. K-1734, to provide for
increase in the
and ~~special~~ gas-oil rated
limitations for wells in
said pool to some figure
not to exceed 10,000 bbl. per*

L. P. Thompson
Division Manager
Production Department
Hobbs Division
Western Hemisphere Petroleum Division

Continental Oil Company
P.O. Box 460
1001 North Turner
Hobbs, New Mexico 88240
(505) 393-4141

AUG - 2 1976
OIL CONSERVATION COMM.
Santa Fe

July 28, 1976

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

Attention: Mr. J. D. Ramey, Secretary - Director

Gentlemen:

Application for amendment of Order No. R-1234, Rule 19.

Attached in triplicate is our application for hearing in regard to the amendment of the special pool rules for the Warren Tubb Gas Pool as they relate to the limiting gas/oil ratio for oil wells. We should appreciate your setting this matter for hearing on the August 18th docket.

Yours very truly,



L. P. Thompson
Division Manager

VTL:dlh

Enc.

CC: C. F. Ellis: F. O. Hull: J. W. Kellahin

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
CONTINENTAL OIL COMPANY FOR AMEND-
MENT OF RULE 19 OF THE SPECIAL POOL
RULES FOR THE WARREN-TUBB GAS POOL
CONTAINED IN ORDER NO. R-1234 IN
REGARD TO THE GAS/OIL RATIO LIMIT
FOR OIL WELLS IN SAID POOL IN LEA
COUNTY, NEW MEXICO.

RECEIVED
AUG - 2 1976
OIL CONSERVATION COMM.
Santa Fe

A P P L I C A T I O N

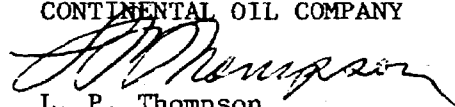
APPLICANT, Continental Oil Company hereby respectfully requests amendment of Rule 19 of the special pool rules for the Warren-Tubb Gas Pool contained in Order No. R-1234 for revision of the limiting gas/oil ratio for oil wells in the Warren-Tubb Gas Pool, Lea County, New Mexico,

1. Applicant is operator and co-owner of the Warren Unit consisting of 5,280 acres in T-20S, R-38E embracing all of the lands in the Warren-Tubb Gas Pool.
2. Order No. R-1234 established special pool rules for the Warren-Tubb Gas Pool for operation of oil and gas wells in said pool, although at that time there were no oil wells in said pool.
3. Applicant has recently drilled a number of commercial oil wells in said pool, most of which have producing gas/oil ratios in excess of 2,000 cubic feet per barrel.
4. Oil production from the pool is unnecessarily restricted due to the low limiting gas/oil ratio and raising such limitation would permit the production of larger quantities of oil and gas.
5. The granting of this application will prevent waste and will not impair correlative rights of other operators.

WHEREFORE, applicant respectfully requests that this application be set for hearing before the Commission's duly appointed examiner and, upon hearing, an order be entered amending Order No. R-1234 as described above.

Respectfully Submitted

CONTINENTAL OIL COMPANY


L. P. Thompson
Division Manager
Production

dlh

DRAFT

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. 5735

Order No. R- 5268

APPLICATION OF CONTINENTAL OIL
COMPANY FOR A SPECIAL GAS-OIL
RATIO LIMITATION, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 18,
19 76, at Santa Fe, New Mexico, before Examiner Richard L. Stamets

NOW, on this day of September, 19 76, 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, Continental Oil Company, seeks the
amendment of Rule 19 of the Special Rules for the Warren-Tubb Gas
Pool promulgated by Order No. R-1234, to provide for an increase in
the gas-oil ratio limitation for oil wells in said pool to 6,000 to
one.

(3) That the Warren-Tubb Gas Pool is not fully defined.

(4) That the Warren-Tubb Gas Pool presently consists of 5 completed gas wells and 9 completed oil wells.

(5) That the applicant seeks ~~said~~ ^{the aforesaid} higher gas-oil ratio limitation for said pool in order that the oil production therefrom will not be restricted as a result of oil well allowable adjustments due to excessive (over 2,000 to 1) individual well gas-oil ratios.

(6) That the applicant contends that such restriction of takes from the oil wells will cause the upward migration of the gas-oil contact toward the gas wells thereby causing waste of oil through the resultant "wetting" of "dry" sands.

(7) That at this time only one oil well ~~is experiencing or restricted such a restricted allowable~~ ^{is experiencing} ~~restricted because of an excessive gas oil ratio~~.

(8) That the applicant is the only operator in the Warren-Tubb Gas Pool.

(9) That the Warren-Tubb Gas Pool lies wholly within the Warren Unit operated by the applicant.

(10) That as operator of the Warren Unit and the sole operator in the Warren-Tubb Gas Pool, the applicant can operate all wells within said pool in such a manner as to prevent the upward migration of the gas-oil contact therein without the relief sought in this application.

(11) That production of gas from wells ~~is~~ ^{is} in excess of a gas-oil ratio of 2,000 to one in said Warren-Tubb Gas Pool may result in the inefficient use of reservoir energy. ^{Therein.}

(12) That denial of this application will not violate correlative rights and may prevent waste.

(13) That the application should be denied.

-3-

Case No. 5735
Order No. R-

IT IS THEREFORE ORDERED:

(1) That the application of Continental Oil Company for an amendment of Rule 19 of the Special Rules for the Warren-Tubb Gas Pool to provide for a gas-oil ratio limitation of 6000 to 1 is hereby denied.

(2) That jurisdiction of this cause is ~~retained~~ 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.