

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

April 15, 1952

In the Matter of:)
)
The Texas Company's application)
for establishment of 80-acre)
spacing for wells drilled to)
the common source of supply as)
discovered in Amerada's State) Case No. 353
EC "A" No. 1 well, NE NW)
14-12S-32E, NMPM, Lea County,)
New Mexico, East Caprock-)
Devonian field.)

(Notice of publication read by Mr. Graham.)

MR. RAY: C. J. Ray, representing The Texas Company, desires to modify their application in this case and therefore we request a continuation until the May hearing in order to provide for a re-advertisement of this amended application.

MR. SPURRIER: Is there any objection to Texas Company's motion?

MR. CAMPBELL: If the Commission please, no objection to the motion, but I would like the record to show that Atwood,

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Case No. 353

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MR. RAY: I have one witness.

MR. CAMPBELL: At the last hearing I entered an appearance in this case for the Leonard Oil Company. I would like to have the record show that I also appear for Sunshine Royalty Company, Roswell, New Mexico.

MR. RAY: The Texas Company in this case is requesting temporary order of the Commission approving for a period of one year 80-acre proration units and uniform spacing pattern for the wells in the East Caprock-Devonian Field. We believe such an order will provide for orderly and proper development of the reservoir, will prevent waste, and conserve steel by the drilling of unnecessary wells.

MR. SPURRIER: If you could speak just a little louder, please.

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MR. SPURRIER: If you could speak just a little louder, please.

MR. RAY: As the development in this pool is still in the initial stages, we are requesting a temporary order of the Commission to provide a regular spacing pattern for the future development and to allow for the accumulation for the additional reservoir data.

J. V. BLACKWOOD,
having been first duly sworn, testified as follows:

DIRECT EXAMINATION

By MR. RAY:

Q Would you state your name?

A J. V. Blackwood.

Q By whom are you employed?

A By the Amerada Petroleum Corporation.

Q In what capacity?

A District Engineer, West Texas-New Mexico District.

Q Have you previously testified before the Commission?

A Yes, I have.

MR. RAY: Are the witness' qualifications acceptable to the Commission?

MR. SPURRIER: They are.

Q In your capacity as District Engineer, have you been in charge of supervision of engineering work for your company in the area of the East Caprock-Devonian Pool?

A Yes, I have.

(Marked Exhibit No. 1 in Case No. 353, Texas Company,

for identification.)

Q I hand you what has been marked as Exhibit 1 and ask you what it is.

A It is a map showing the general area of the East Caprock-Devonian Pool, Lea County, New Mexico.

Q Does this, in your opinion, show the wells that have been completed and the wells that are being drilled in this area?

A Yes, it does. Two of the wells that are shown on this map are drilling wells and are now completed.

Q The Amerada EC "D" and the Amerada Posey No. 1, which is shown as drilling wells here have recently been completed, is that correct?

A Yes, that is correct.

Q In your work in this area have you studied the electric logs of the wells in this field?

A Yes, I have.

Q Can you give the top of the Devonian formation as it was found in your EC "A" well?

A The top of the Devonian, and as indicated by the electric log, was 11,244 feet or 6,880 feet below sea level.

Q Do you have an electric log of that well?

A Yes, I do.

(Marked Texas Company Exhibit No. 2 for identification.)

MR. RAY: I would like to submit in evidence Texas Company Exhibit No. 2, the electrical log of the Amerada EC "A"

well.

MR. SPURRIER: Without objection it will be received.

Q Can you give us the top of the Devonian formation found in the Amerada, State of New Mexico, EC "C" well?

A The log indicated the top at 10,989 feet or 6,628 feet below sea level.

MR. CAMPBELL: What was the figure?

A 10,989.

Q Do you have a log of that well?

A Yes.

(Marked Texas Company Exhibit No. 3 for identification.)

MR. RAY: As Exhibit No. 3 I would like to submit the electric log on the Amerada EC "C" well.

MR. SPURRIER: Without objection it will be received.

Q Do you have the top of the Devonian formation as found in the Amerada, State of New Mexico, EC "D"?

A The top is indicated by the electric log 11,140 feet or 6,729 feet below sea level.

Q Do you have a log of the EC "D" well?

A Yes.

(Marked Texas Company Exhibit No. 4 for identification.)

MR. RAY: I would like to submit Exhibit No. 4 as the electric log. State of New Mexico.

MR. SPURRIER: Without objection it will be received.

Q Do you have the top of the Devonian formation as found

in your Amerada Posey No. 1 well?

A The top of the Devonian is indicated by electric log in the Amerada Posey well 11,158 feet or 6,808 feet below sea level.

Q Do you have an electric log of that well?

A Yes.

(Marked Texas Company Exhibit No. 5 for identification.)

MR. RAY: Exhibit No. 5, I would like to submit the electric log --

MR. SPURRIER: (Interrupting) Without objection it will be received.

Q I hand you an electric log on this Texas Company, State of New Mexico, BF No. 1 well. Would you look at that log and determine the top of the Devonian formation in this well. This is the Texas Company BF.

A The electric log indicates that the top of the Devonian is approximately 11,312 feet.

Q What would be the subsea datum?

A The elevation shown, it would indicate that the subsea datum is minus 6940.

(Marked Texas Company Exhibit No. 6 for identification.)

MR. RAY: Texas Company No. 6, I would like to present the log on the State of New Mexico BF.

MR. SPURRIER: Without objection the Exhibit No. 6 will be received.

Q In your study of this area have you determined a water

table in the Devonian formation?

A We have drill stem tests and production tests that indicate that the water level is approximately minus 6910.

Q That shows that our BF with a top at 6940 was approximately 30 feet below the water, is that correct?

A Yes, that is correct.

Q And for that reason the well did not make a producer?

A That is right.

Q Has your company taken any production tests of your completed wells in this area?

A Yes, we have.

Q Have you measured any productive indices?

A Yes, we have measured productive indices on two wells.

Q What wells were those?

A The State EC "A" No. 1 and the State EC "C" No. 1. These are the only two wells that have been completed very long.

Q Could you describe briefly to the Commission the results of those two tests?

A The test in the EC "A" No. 1 was taken for 48 hours through a 3/8 inch choke. The flow we had at an average daily rate of 504 barrels per day. The bottom hole pressure drop was 507 pounds given a productive index of .994 barrels per day per pound drop. This well is producing from a 10-foot perforated zone. In the State EC "C" No. 1 the well was tested for 24 hours through a 1/4 inch choke and flowed 1,117 barrels. The bottom

hole pressure drop we were unable to measure. It didn't drop enough for us to record the drop. The well is producing from 70 feet of open hole.

Q In your EC "C" well you state you were unable to record any bottom hole pressure drop?

A Yes.

Q That would indicate then almost an infinite P. I.?

A Well, --

Q (Interrupting) Very high?

A Not infinite but extremely high.

Q In your opinion what do these tests indicate about the nature of the reservoir?

A These tests indicate that permeability in the reservoir is quite good.

Q The P. I. you testified to in your EC "A" well is approximately one, that represents 10-foot section, 10-foot productive section?

A Yes, that is right. EC "A" only had a short section above water.

Q How much section above water approximately is in that well?

A Approximately 30 feet.

Q In measuring these P.I.'s did you record a static bottom hole pressure for the reservoir?

A Yes, the initial pressure recorded for the reservoir

was in State EC "A" No. 1 on September 13, 1951, and was 4,454 pounds per square inch.

Q Is that relatively close in your opinion to the original bottom hole pressure of this reservoir?

A Yes, it is. The well had only produced some 1,900 barrels of oil and had been shut in for almost 10 days.

Q Do you have a copy of the P. I. tests that we can submit to the Commission?

A Well, not very handy. Yes, I can get to them. We have a copy here of the one on the EC "A" and one on the EC "C".

(Marked Texas Company Exhibits No. 7 and 8 for identification.)

MR. RAY: Texas Company's Exhibits No. 7 and 8 I would like to submit P.I. tests of EC "A" and EC "C" wells.

MR. SPURRIER: Without objection they will be received.

Q The permeability indicated by these P. I. tests, in your opinion, is very good in this reservoir?

A Yes, that is correct.

Q Based on these P. I. tests do you think it is indicated that one well may drain a considerable area?

A Yes.

Q Do you feel that these tests furnish a basis for the statement that one well may drain adequately an area of 80 acres?

A Yes, I believe they do.

Q Do you have any additional information on this reservoir

that you feel should be brought before the Commission's attention?

A No. I really don't have any more information on the reservoir at the present time.

MR. RAY: I have no further questions at this time.

MR. SPURRIER: Does anyone have a question?

MR. CAMPBELL: Is this witness in a position to testify as to the proposed location of these units or are you going to do that?

MR. RAY: I see. I will bring it up.

By MR. RAY:

Q You have read the Texas Company's application in this matter?

A Yes, I have.

Q In this application what is the requested location for the spacing pattern?

A The requested location, that wells be located in the center of the northeast and southwest 40-acre tracts of each quarter section.

Q In your opinion will such a pattern provide for regular development of this field?

A Yes, as far as I can see.

Q In the matter of setting allowables for the requested 80-acre units, would allowable be determined by multiplying by 1.5 the normal allowable for a normal 40-acre unit with deep adaptation give approximately daily production of 450 barrels?

A This month it would be something just a little less than 450 barrels.

Q 450 barrels would be the figure you would get with 53 barrels for a 40-acre unit allowable?

A I am not sure of that. I don't recall the shallow well allowable at the time, but the 40-acre allowable in East Caprock-Devonian was 301 barrels per day.

Q In your opinion, based on the production tests available, do you at this time, do you think that these wells can produce an allowable of that nature without waste?

A Yes, I do.

Q You think the productivity of the wells is indicated to be sufficiently good for that production?

A Yes.

MR. RAY: That is all I have.

By MR. CAMPBELL:

Q Mr. Blackwood, in connection with the application of The Texas Company for 80-acre spacing in this field, you have stated that the wells are to be located in the northeast and southwest quarter, quarter section, is that correct?

A Yes, that is what is stated in the application.

Q How do you propose to attribute the additional 40 acres by east-west rectangular 80-acre units, north-south diagonal, or on what basis?

A Well, it isn't stated in the application, but I see no

reason why it couldn't be on either north-south 80's or east-west 80's.

Q You mean optional or do you mean it ought to be one or the other?

A Well, it could be optional.

Q You feel that it would make no difference as far as you are concerned whether the tract, the 40 acres that you are attributing to this well, is to east or west, or north or south, or diagonal?

A I hadn't considered the diagonal question, but I don't think it would make any difference in the other two cases.

Q Would you leave that up to the owner of the lease, is that what you recommend?

A Yes.

Q Then your application now is that the well be situated on a fixed pattern basis in the southwest quarter, quarter or the northeast, and that the owner of the lease had the option of running his unit, 80-acre unit, either north or south or east or west.

A That would be my idea. I am not sure what the Texas Company has in mind in that application.

Q It makes considerable difference to royalty owners which way it goes. You are not making any recommendation to the Commission in that regard?

A No. That is my point.

Q In connection with your Exhibit No. 1, I believe you stated that your Posey A-1 well in the southwest of the southeast of Section 11 has now been completed?

A Yes.

Q When was that completed?

A That well was completed in April, April 25, 1952.

Q Do you have any data on the well in addition to what, have you given any completion data on it to the Commission?

A Not anything except the log which was given as an exhibit. The electric log and the top of the Devonian.

Q You don't have any P. I. or anything of that kind on that well?

A No, I haven't run a productivity index. We have a completion test on it.

Q What was the initial production of that well?

A The test was 330 barrels of oil in nine hours on a quarter inch choke. The gas-oil ratio was 16.

Q How does that well compare with your EC "C" well No. 1, in your opinion?

A It compares very favorably.

Q Your EC "C" is it a better well than the EC "A"?

A Yes, it is better than the EC "A".

Q You have also completed your EC "D" well in Section 2, is that correct?

A Yes, that is correct. It was completed May 2.

Q What did your initial test show on that?

A The production during the first 24 hours was 888 barrels.

Q Quarter inch choke?

A No, the first eight hours were on 3/4 inch choke, one hour on 1/2 inch, and the rest of the time 1/4 inch.

Q How does that well compare with your EC "C" well?

A It compares very favorably. Of course, it doesn't have quite as much section above water.

Q How much section does it have above water?

A EC "D" has 181 feet above water.

Q The EC "C" well is apparently the highest well in the field so far?

A So far, yes.

Q How much section have you got there?

A 282 feet above water level.

Q Doesn't Amerada now have a well drilling in the southwest quarter of the southeast quarter of Section 2, the EC "E" well?

A Yes, that is correct.

Q That should be shown on here then, shouldn't it? It is not on your Exhibit 1, is it?

A No, it isn't on Exhibit 1.

Q That is a direct 40-acre offset to your EC "D" well?

A Yes.

Q And your EC "D" well is of the pattern that you are

proposing here?

A Yes, that is correct.

Q And you are seeking an exception for that well and for one other well, are you not?

A The Texas Company's application they ask for one on their State BA, I believe.

Q Do you know whether that well is drilling or not?

A I don't know. No.

Q Your application, I believe, recommends to the Commission that anyone who wishes to drill a 40-acre location may do so without hearing and their allowable will be one-half of the one and half allowable or three-fourths of a normal 40-acre allowable.

A I believe that is the way it read.

Q Do you think your EC "A" and Texas Company BA well, which are both off pattern, should have that allowable?

A Should have which allowable?

Q Half of the one and half allowable?

A No, not unless the lease, not unless another well is drilled on the lease.

Q What is the present status of your EC "A" well, discovery well?

A It is on production. It is pumping.

Q What is the reason for its pumping if it is such a good well?

A Well, it is making some water.

Q How much water is it making?

A About 35 per cent.

Q When did it start making that water?

A I don't recall. It was about March of this year.

Q What was your rate of production at that time?

A Approximately 300 barrels per day.

Q Do you believe that that well could be produced at the rate of 450 barrels a day if it makes water and is on the pump now?

A It will produce that much oil now, yes.

Q Don't you think that will damage it?

A No.

Q You stated that in your opinion the permeability in this reservoir was very good. As I understand it, you base that conclusion on P. I. tests on two wells solely.

A That is correct.

Q Have you ever taken a core of any of your wells?

A No.

Q Do you believe you can reach a decision that one well will drain 80 acres on P. I. tests on two wells?

A Well, not definitely, no.

Q Without cores do you think that you can reach any reasonable conclusion as to the permeability, either the extent or the uniformity of permeability, in this reservoir?

A Yes. As a matter of fact, the productivity index

probably gives you a little better information on the uniformity than does core analysis.

Q Can you determine from the P. I. tests on these two wells whether there may be in this area variations in permeability that might isolate certain zones from others?

A No, not on these two wells.

Q But your opinion now is that one well in this field will drain 80 acres?

A Well, the information we have so far indicates that.

Q Why don't you ask for a permanent order then?

A Because we don't have all the information yet.

Q The fact is then --

A (Interrupting) On the two wells I couldn't do it.

Q Well, the fact is on the basis of the two wells you can't say with any degree of certainty that any well will drain, adequately and efficiently, drain 80 acres?

A Well, not over the entire reservoir.

Q Have you taken any tests which would give you any measurement of the permeability in this reservoir at all?

A Well, there is a means of making a fairly good estimate by calculation from the productivity index tests.

Q Have you made that calculation?

A No, I haven't.

Q Have you any information on the porosity?

A No.

Q Have you any information on the pay out on these wells at the rate, at the present rate allowable 300 barrels?

A No, I don't.

Q You don't have any cost information on the wells with you?

A One of the, our second well, the State EC "C" No. 1, cost approximately \$237,000.

Q That was your EC "C" well?

A Yes.

Q And what is the allowable of that well?

A I don't recall what it is this moment. It is something just less than 300 barrels.

Q You haven't computed the pay out period on that basis?

A No, I haven't.

Q Do you feel that there is, I gather from your testimony you feel these are good wells, that there is no question in your mind about the economics of this thing insofar as the wells paying out is concerned, is there?

A No, not so far.

Q Do you have any reason to believe that there will be?

A No.

Q What is the present status of the Posey No. 2 well. How deep is that?

A I don't know at the present time, but it isn't very deep, probably in order of 4,000.

Q You have four completed wells in the reservoir?

A Yes.

Q Do you know whether the Texas Company BF well, did it have Devonian sectional right?

A Yes, it did.

Q Did it get any oil shows at all, do you know?

A I don't believe it did.

Q Do you have any information that would indicate whether the pay section within the Devonian in each of these wells is the same or approximately the same? Are they producing from the same area in the Devonian?

A Yes, as far as I know.

Q Do you have the information as to whether they are actually open and producing each of the wells?

A Yes, I do.

Q Could you give that to me, please?

A The EC "A" No. 1, with the top of the Devonian 11,244, is producing from perforations from 11,260 to 270.

Q And the EC "C"?

A EC "C", with the top of the Devonian at 10,989, is producing from open hole, 70 feet of open hole, from 11,170 to 11,240.

Q The EC "D"?

A EC "D" No. 1 is producing from 56 feet of open hole from 11,204 to 11,260.

Q Posey No. 1?

A Posey No. 1 is producing from 70 feet of open hole from 11,160 to 11,230.

Q If the computation on that cost of your EC "C" well No. 1 indicates an approximate pay out period on that well of 14 months, won't you say that was a pretty good well?

A Yes.

MR. CAMPBELL: I think that is all.

MR. SPURRIER: Let's take a five minute recess.

(Recess.)

MR. SPURRIER: We will proceed with Case No. 353.

MR. COLLISTON: I would like to ask the witness one or two questions.

MR. SPURRIER: Mr. Colliston.

MR. COLLISTON: Mr. Colliston representing Continental Oil Company. Mr. Blackwood, the Texas Company application in paragraph nine states the allowable for the 80-acre unit shall be calculated as follows: "The allowable assigned any well within the common source of supply shall be determined by multiplying the allowable for a normal 40-acre unit by the usual depth factor by 1.5." Are you proposing that as a special field rule to apply to the distribution of allowables within this field?

A I believe that was their intention.

MR. RAY: That is right. We are suggesting that as the allocation formula for the Caprock-Devonian Pool.

MR. COLLISTON: It is true that could be a special field rule?

MR. RAY: We are merely suggesting the 1.5. We feel that it should be greater than 1.0 and that 1.5 is our recommendation.

MR. COLLISTON: You think the second 40 acres added to the first 40 acres should have some consideration in calculating the allowable?

MR. RAY: It is our purpose to set up the allocation for the 80-acre unit.

MR. COLLISTON: Within the pool?

MR. RAY: Within the pool.

MR. COLLISTON: You are not proposing the 40-acre allowable multiplied by 1.5 to be the formula for allocation to the field of its proportion of the state's allowable?

MR. RAY: Would you state that again?

MR. COLLISTON: You are not proposing the 40-acre allowable with deep well adaptation multiplied by 1.5 to be the formula for allocating oil to the pool, forgetting its proportion on the state's allowable?

MR. RAY: Yes.

MR. COLLISTON: I am speaking now of allocation between fields.

MR. RAY: We are proposing that the standard 40-acre unit be multiplied, that is with the appropriate depth modification

be multiplied 1.5 to determine the allowable for the 80-acre proration units we are requesting of the pool.

MR. COLLISTON: Within the field. Then it is a special field rule?

MR. RAY: That is right.

MR. COLLISTON: That is all.

MR. WHITE: Are all these wells capable of producing their full allowables?

A Yes.

MR. WHITE: EC "A", that is the one that is on pump and pumping so much water, is it not?

A Yes.

MR. WHITE: Is it producing its full allowable now?

A Yes, except for pipeline proration at the present time. It is capable of producing the present allowable.

MR. WHITE: That is all I have.

MR. SPURRIER: Any more questions?

MR. CAMPBELL: I would like to ask Mr. Ray a question. I don't know how to quite go about it. I would like to ask him if he knows whether it is The Texas Company's recommendation that these 80-acre units be north-south or east-west, depending on the option of the operator of the lease. Is that your recommendation or do you propose to the Commission some particular adjustment of the 80-acre tracts in this field?

MR. RAY: In our application we have not. We have not

defined the 80-acre units as either running north or south or east or west. Our purpose was that the operator could designate either way to suit the area of his lease. We did contemplate that they would be either east or west or north and south and would include portions of government quarter sections. In other words, quarter sections, there wouldn't be any diagonal units.

MR. CAMPBELL: Have you made any study in connection with that to see what the effect of diverse lease ownership would have upon the units in connection, for instance, with isolated 40-acre leases in the field?

MR. RAY: No, I have not.

MR. CAMPBELL: Have you ever made any effort in this field to unitize either the leases or the royalty or both?

MR. RAY: No.

MR. CAMPBELL: No effort has been made to unitize the field?

MR. RAY: Not to my knowledge.

MR. CAMPBELL: Don't you think the same thing could be accomplished by unitizing the field?

MR. RAY: I think that is quite possible.

MR. CAMPBELL: I think that is all.

MR. SPURRIER: Any more questions?

MR. RAY: I have a few more questions to direct to my witness.

Q Could you give me the base of the perforations in your

EC "A" well, the subsea datum?

A The subsea datum, or the base of the perforations in State EC "A" No. 1 is 6906.

Q How much is that above the water table in this field?

A Well, about four feet.

Q This well was originally drilled to water, was it not?

A Yes, it was drilled well below the water line.

Q Then casing was set and cemented and it was perforated after that time?

A Yes.

Q Is that right?

A Yes.

Q How was the casing perforated?

A General perforations.

Q Then it would be quite possible with such a small separation above water to crack your cement sheet and allow bottom water to be produced in that well, is that right?

A Yes, it is easily possible. That is pretty close to water.

Q In your opinion, the water production of your EC "A" is not an unusual thing?

A No, it isn't.

Q It discloses no detrimental reservoir characteristics?

A No.

MR. RAY: That is all the questions I have.

MR. SPURRIER: Any further questions of this witness?

MR. MACEY: Mr. Blackwood, in regards to the P. I. test on the EC "C" No. 1, do you think that P. I. test is representative of that well?

A Yes, I do.

MR. MACEY: You don't think there is a possibility that you could have had a malfunction?

A I don't think so, no.

MR. MACEY: Did you run any subsequent test after this test?

A No.

MR. MACEY: In normal testing of wells, don't you think that is a little unusual to have a P. I. test that produces 1,100 barrels of oil when you have absolutely no drop in bottom hole pressure?

A It is unusual, yes.

MR. MACEY: Have you ever run across one before?

A Yes, I have.

MR. MACEY: In what area, could you tell me?

A In the Devonian at the Hightower Pool.

MR. MACEY: Absolutely no drop in bottom hole pressure?

A None that we could measure.

MR. MACEY: That is all.

MR. SPURRIER: Any other questions? If not, the witness may be excused.

(Witness excused.)

MR. RAY: I would like to submit as Texas Company's Exhibit No. 1 a map of the area.

MR. SPURRIER: Without objection it will be received. Does anyone have anything further in this case?

MR. RAY: I would like to make a closing statement.

MR. SPURRIER: Any other witnesses to appear?

MR. COLLISTON: I would like to make a statement.

MR. SPURRIER: Go ahead.

MR. COLLISTON: Continental Oil Company is not concerned in this field and therefore not concerned with The Texas Company's application except for its recommendation that the allowable be calculated by multiplying the 40-acre allowable with deep well adaptation by one and a half. The witness has stated that he intends that to be the special field rule for this field. It was not necessarily testifying as to allocation between fields. The question of allocation between fields for 80-acre fields with deep well adaptation was covered in Commission Hearing Case No. 313 held October 23, 1951, which was application on the Commission's own motion for an order amending Rule 505 oil proration, with particular reference to paragraph 2, proportional factors for deep wells under various spacing patterns. At that time Continental's arguments as to the proper calculations for double allowables for multiplying allowables was clearly brought out and the matter is now under advisement by the Commission. I would like to include the record of Case No. 313 into the record of this case by

reference.

MR. SPURRIER: Very well. Mr. Macey, you want to read those letters?

MR. MACEY: We have a number of letters from royalty owners in this area. The first is written by Coleman W. Robinson and Elbert Robinson, addressed to Mr. R. R. Spurrier:

"Dear Sir:

I own the land and minerals in 11 South, 32 East, around Texas Company's No. 1 Moore, and want to go on record opposing 80-acre spacing.

Please enter the protest before the Oil Conservation Commission hearing.

Respectfully yours,"

MR. RAY: I would like to point out that the area around our Moore well is not located in this reservoir.

MR. MACEY: The other is a letter from Gertrude C. Whittle, Lovington, New Mexico, addressed to the Oil Conservation Commission of the State of New Mexico, Santa Fe:

"Gentlemen:

I am a royalty holder on the Posey land which is in the EC "A" area. The land belonged to my mother originally. We have long awaited the possibility of getting a good income from this property to take care

of us in our declining years.

I wish as of today to enter my protest against the 80-acre spacing requested in the above numbered application. Will you please give this your careful consideration.

Why shouldn't this pool be developed like other pools in this county?"

Reference is to Case 353.

Letter from F. J. Danglade, Lovington, New Mexico, regarding Case No. 353, addressed to the Oil Conservation Commission of the State of New Mexico, Santa Fe, New Mexico:

"Gentlemen:

As a royalty holder within the limits of the estimated productive portion of what has been designated East Caprock-Devonian Pool, I wish to register my protest against the temporary establishment of 80-acre proration units therein for the following reasons:

1. Lack of conclusive evidence that such spacing will adequately deplete the available source of supply.
2. So many exceptions will be necessary, including those requested in the application that an unfair situation will be created for those who are limited to spacing requested.

Respectfully submitted,

/s/ F. J. Danglade"

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 12, CROMWELL BLDG.
PHONES 7-9845 AND 5-9846
ALBUQUERQUE, NEW MEXICO

J. Clyde Tomlinson, Longview, Texas, Oil Conservation
Committee, State of New Mexico:

"Dear Sirs:

It is my understanding that The Texas Company and
Amerada Petroleum Corporation have made application for
80-acre spacing pattern for the development in East
Caprock-Devonian Field, Lea County, and that a hearing
on this application will be held on May 20.

As the owner of substantial mineral interests in
this immediate area, I desire to take this method of
filing with your Honorable Body my opposition to an 80-
acre spacing pattern in this field.

Thanking you for your consideration, I am,

Yours very truly,

J. Clyde Tomlinson"

The last is a letter from the First National Bank,
Lubbock, Texas, addressed to the Oil Conservation Commission,
Santa Fe, New Mexico:

"Gentlemen:

With reference to the application of The Texas
Company and Amerada Petroleum Company to you for 80-acre
spacing permit for the East Caprock-Devonian Pool in Lea
County, wish to say that my wife owns 120 acres of
minerals; her nephew, Paul Sparkman, owns 60 acres of

minerals; and sister, Mrs. Gertrude Whittle, owns 50 acres minerals southwest quarter and east half of the northeast quarter of Section 11 and north half of northeast quarter of Section No. 14, all in Township 12, Range 32 East.

The Amerada has drilled and is producing oil from No. 1 EC "A" well 660 feet west from the 80 acres north half of the northeast quarter of Section No. 14, 11 South, 32 East.

Also finished and is producing oil from EC "C" 660 feet north of the northwest quarter of the southwest quarter of Section 11, 12 South, 32 East.

This same well is 660 feet west of the east half of the northeast quarter of said Section 11, 12 South, 32 East.

We are due offset to these two wells and must protest this application for an 80-acre spacing as regards our holdings there. We beg your consideration and protection as to these offsets.

Yours very truly,

W. S. Posey

Agent for Haley C. Posey

Agent for Paul N. Sparkman

Agent for Gertrude C. Whittle"

MR. RAY: I would like to state for the Commission that insofar as possible we have tried to get all the reservoir data that is presently available into the record. We have brought this application at this time even though more information would be desirable to definitely show that one well will drill 80 acres or one well will drain 80 acres in order to provide for development on a regular spacing pattern.

The Texas Company will core our BB well. We will take all steps to secure additional data. We are asking for a temporary order with the thought in mind if the application is granted that at a later hearing we can present full factual data to support this. We think no detriment will be worked by developing for a period of one year the reservoir on the spacing pattern we requested.

We are asking that the following area be included:

All of Section 2, the east half of Section 10, all of Section 11, west half of Section 12, west half of Section 13, all of Section 14, the east half of Section 15, all sections located in Township 12 South, Range 32 East. That area is delineated by the red line on our Exhibit 1. We are asking that 80-acre proration units be established for the East Caprock-Devonian Pool.

2. That all wells drilled should be located in the center of the northeast and southwest quarter of each governmental quarter section with a tolerance of 100 feet in any direction to avoid surface obstructions. Except the following locations: The

southeast quarter of the southwest quarter of Section 2, the northwest quarter of the northwest quarter of Section 14, which locations we request be designated as the wells for the proration units upon which they are located.

3. That no well shall be drilled or produced in the said pool except in conformance with the spacing pattern set forth above, except in order to protect correlative rights and increase without waste the ultimate recovery. The Commission shall have the right to approve without hearing the drilling of a well located in the center of any quarter of a governmental quarter section with a tolerance of 100 feet to avoid surface obstructions.

4. That all wells producing and hereafter completed in East Caprock-Devonian Pool be given allowable equivalent to one and a half times the top allowable for the 40-acre proration unit with deep pool adaptations.

5. If any well is drilled as an exception to the well spacing pattern set forth above under special order of the Commission the allowable for such well as compared with the allowable production therefrom of such tract with regular 80-acre unit shall be in the ratio of such tract to the area on the regular 80-acre unit. That this order shall cover all of the East Caprock-Devonian source of supply and any extension thereof which may be determined by further development shall continue in force for a period of one year from the first day of June, 1952. That each operator in the East Caprock-Devonian field shall file with the

Commission at Santa Fe on or about the 15th day of each and every month a monthly tabulated report for each well showing the allowable, the actual oil production, the water production, gas production, cumulative oil production, cumulative water production and cumulative gas production. This requirement is in addition to and similar to the other reports and surveys presently required by the Commission and is not a substitution, and is not in substitution or in lieu thereof.

8. That said operators shall cause a pool wide bottom hole pressure survey to be taken during the months of October 1952, April 1953. The results thereof reflecting such pressures of each well shall be submitted in writing to the Commission on or before the fifth day of the following month.

9. That at the regular Commission hearing for the month of May in 1953 the operators shall show cause why said pool should not be placed on 40-acre spacing with allowable adjustments.

MR. CAMPBELL: If the Commission please, that summary and the proposed order brings up something I would like to clarify the record on. Your BA well is not drilling now, is it?

MR. RAY: To my knowledge it is just a location.

MR. CAMPBELL: That is the one you are asking an exception for at this time?

MR. RAY: That is right.

MR. CAMPBELL: Any particular reason why you are asking for an exception? Why don't you put it in the orthodox place?

MR. RAY: I don't think we object to the Commissions doing that. The reason that it was requested as an exception was that the approval to drill the well in that location was received from the Commission prior to the filing of our application.

MR. CAMPBELL: You would be willing to drill that well in the south 40 there instead of that north one? You would be willing to drill that one in the southeast?

MR. RAY: I doubt if our geologist would recommend a south location.

For the Commission's information, I would like to submit our proposed, the form of the proposed order which the Commission might take in this case.

MR. SPURRIER: Are there any more comments in this case?

MR. BLACKWOOD: I would like to make a statement on behalf of Amerada Petroleum. We would like to concur in The Texas Company's application. We feel that it is reasonable and see no possibility of any damage being done to the reservoir or any royalty owners by the issuing of a temporary 80-acre spacing. As far as the allowable assigned 80-acre spacing, why, if testimony in the case mentioned by the Continental representative should be applied to this field, why, we have no objection to that, whatever is worked out. We are not insisting on that 1.5 in any manner.

MR. RAY: I would like to state that the 1.5 is merely our recommendation. That the only thing we are concerned with is that an allowable be set for the 80-acre proration units if

granted. We merely suggest the 1.5 figure and would accept the Commission's action as they see fit in the matter.

MR. SPURRIER: Any other comment?

MR. McKELLAR: Mr. McKellar representing Magnolia.

Magnolia would like to go on record supporting this Texas Company application for a temporary 80-acre spacing order in this East Caprock-Devonian Pool. Of course I realize, even more so realize than before I came to the hearing, realize more so now that Texas Company and Amerada have little reservoir data available to place any engineering estimate whether one well will or will not drain 80 acres in the reservoir. P. I. test and all the reservoir test data which they do have indicates favorably that it will drain at least 80 acres. Of course the thing behind Magnolia in this case, as in other similar cases, is that if the field can be developed on a wide spacing pattern initially that it will result in faster stepouts. The limits, productive limits, of the pool will be determined more rapidly and then should it develop that one well will adequately drain 80 acres it will result in considerable savings of time, money, and certainly, at this time, critical tubular goods. I think one point that was brought out this morning as to whether or not these wells would pay out economically and so forth, it should be, the determining test in cases of this nature should be whether the second well drilled on the 80 would drain a sufficient amount of additional oil to pay for the second well. Certainly, two wells on 80 acres will drain more oil than one well.

Four will drain more than two, but the test is will that second well on the 80 drain more oil than the one well to pay for the additional cost. We would like to go on record supporting the application.

MR. SPURRIER: Anyone else?

MR. WALKER: Don Walker with Gulf. Gulf does not have any productive acreage in this pool at this time. But we do have acreage which we think might ultimately be in the productive limits of the reservoir. We would like to go on record favoring a temporary 80-acre order to be effective until there is sufficient data to determine whether or not the 80-acre spacing is adequate to drain the property. We feel that it is never too late to convert an 80-acre drilling pattern to 40 acres. But on the other hand if you drill 40's when 80 would do the job, we certainly are contributing to a policy other than conservation. We do have a qualification to make, however, in view of the steeply dipping nature of the deeper reservoirs in New Mexico. Gulf does not feel that locations for such wells should be fixed for either 40 acres of the 80-acre pattern in the 80-acre unit.

MR. SPURRIER: Anyone else?

MR. HOWARD JENNINGS: I am a royalty owner in this. I would like to make an objection to this spacing program, in that I feel that the royalty owners are certainly not being given any consideration. Their offsets have not been protected. The Commission, the Amerada, and The Texas Company are asking the

Commission to protect them against the land owners. They are asking them to get between the land owners and them. I just don't think that the Commission should put themselves in that position. Texas Company has admitted that they haven't tried to unitize this area.

Frankly, if they, I feel that if they could go in there and unitize it, the royalty owners and lease holders would be on an equal basis. They are not worried about the individual mineral owners. They are worried about if they can get by with 80-acre spacing. Actually, they don't need a restraining order to do that. They are asking the Commission to do that for them. When you figure your allowables on one and a half basis, 1.5, actually you only get 75 per cent of your allowable if you had two wells.

Well, the royalty holder is not interested in the pay out of those wells. From the testimony that we have had today, it appears to me that a 14 or 15 months' pay out is certainly well worth drilling. In previous cases that have come before the Commission, for example, the Bagley-Hightower area, we have seen, if you will look at the map, wells drilled on 80-acre spacing. They have stepped out and gotten marginal wells due to their spacing pattern. They have drilled from four to five dry holes due to the spacing pattern.

Texas Company is asking for two exceptions already in the spacing pattern. They think they will get a dry hole if they move south in Section 14. I submit to the Commission that if they

get marginal wells due to their spacing pattern that won't make allowable and half, then where does the royalty owner stand. He has absolutely no, he has absolutely no recourse when they drill a dry hole on them. It appears to me that the Commission should deny this application immediately. We have had previous experiences where they have asked for it for six months, and asked for it for another six months, and asked for it for a year, and in effect they are getting what they want by just stalling.

MR. SPURRIER: Anyone else?

MR. JOHN TRIGG: I have a small royalty interest near the discovery Amerada EC "A" and I should also like to protest this proposed 80-acre spacing.

MR. SPURRIER: Anyone else?

MR. FOSTER: E. H. Foster representing Phillips Petroleum Company. We don't have any production in the area under consideration, but we are very much in favor of the adoption of 80-acre spacing in this state where in fact it is justified. We feel that if the Commission would grant this application on behalf of The Texas Company that it would be a step in the right direction. We are on record here in a number of instances repeating what the Magnolia man said, if you don't start out on 80 acres you will never get there. That is just a plain fact. You can also go back to this 40-acre spacing if you want to. Now the statute in this state, I have pointed this out before, doesn't require an operator to drill more wells than is necessary to adequately develop the

land. As far as the principle objections that are usually made by the royalty owners, I think that the royalty owners would actually benefit by the adoption of 80-acre spacing wherever the facts were justified. I think he would be benefited because that would encourage the development of the deep production in the state. In addition to that the spacing pattern doesn't do away with the leases, contractual obligations, to the royalty owner to adequately develop the land. If the royalty owner feels like that the Commission's judgement isn't any good on the question of how much acreage a well will drill, he still has his remedy open to him to compel the adequate development of that land. No producer has any thought of trying to hide behind 80-acre spacing as a means of avoiding its contractual obligations. Whenever I hear a royalty owner get up and start talking about those things, I know he just isn't well informed, or he doesn't want to be well informed. I don't know which. I would be glad to inform him. I like to deal with these matters direct. There isn't anything personal about it, but I think the record ought to be kept a little bit straight. Now, the next thing is that in my judgement a royalty owner ought to be bound by the conservation rules just the same as a producer. You can't play this both ends against the middle on this thing. The rules of conservation, if they are any good for producers, they are good for a royalty owner. You can't let the royalty owner operate on one set of rules and hold the producer to another set. There seems to be a little misunderstanding

on that point. If what I am saying will clear it up, then I feel like I am making some contribution to this hearing. But Phillips Petroleum Company very strongly wants to recommend the adoption of 80-acre spacing in this pool, and it appears to me that the Commission would be well justified in doing it on the present information. Later on you may want to go back to the 40 or you may want to even extend to 80. I don't know, but at the present time it seems to me that the information would well justify an order on authority of the Commission for 80-acre spacing in this pool.

MR. SPURRIER: Anyone else? If not, the case will be taken under advisement. We will move on to case, the fourth case, which is Case No. 354.

STATE OF NEW MEXICO)
 :
COUNTY OF BERNALILLO)

I HEREBY CERTIFY that the foregoing and attached transcript of hearing in Case No. 353 before the Oil Conservation Commission, State of New Mexico, at Santa Fe, on May 20, 1952, is a true and correct record of the same to the best of my knowledge, skill and ability.

DATED at Albuquerque, New Mexico, this _____ day of May, 1952.

REPORTER

ADA DEARNLEY & ASSOCIATES
COURT REPORTERS
ROOM 12, CROMWELL BLDG.
PHONES 7-9645 AND 5-9546
ALBUQUERQUE, NEW MEXICO