

BEFORE THE
OIL CONSERVATION COMMISSION
Hobbs, New Mexico
March 1, 1956

IN THE MATTER OF:

Case No. 1025

TRANSCRIPT OF PROCEEDINGS

BEFORE THE
OIL CONSERVATION COMMISSION
March 1, 1956
Hobbs, New Mexico

Application of the Ohio Oil Company for
an order granting an amendment to an
existing 320-acre non-standard gas prora-
tion unit established in Commission's Order
Number R-545, said unit consisting of the
N/2 of Section 11, Township 22 South, Range
37 East, Tubb Gas Pool, Lea County, New
Mexico; said amendment to permit production
therefrom by two of the applicant's wells .
)

Applicant in the above-styled cause, seeks an
order amending the operation of an existing
320-acre non-standard gas proration unit to
the effect that it be permitted to produce its
Lou Worthan Well No. 9, located 1905 feet
from the North line and 440 feet from the West
line of Section 11, Township 22 South, Range 37
East, in the Tubb Gas Pool, presently assigned
to said unit, and in addition its Lou Worthan Well
No. 11 located 2055 feet from the West line and
1905 feet from the North line of Section 11; said
well to be recompleted in the Tubb Gas Pool, the
proration unit consisting of the N/2 of Section 11,
Township 22 South, Range 37 East, Lea County,
New Mexico.
)

Case No. 1025

BEFORE:

Warren W. Mankin, Examiner

TRANSCRIPT OF HEARING

EXAMINER MANKIN: We will now proceed with the last case on the docket,
Case 1025, the application of Ohio Oil Company for an order granting an amendment to
an existing 320-acre gas proration unit in the Tubb Gas Pool.

MR. COUCH: Mr. Examiner, we will have one witness, Mr. D. K. Spellman, Jr.

D. K. SPELLMAN, JR.

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

DIRECT EXAMINATION

By MR. COUCH:

Q. I am Terrel Couch, appearing on behalf of the Ohio Oil Company. Will you state your name please sir.

A. D. K. Spellman, Jr.

Q. And what is your position with the Ohio Oil Company, Mr. Spellman?

A. I am Assistant Division Engineer of the Ohio Oil Company in Houston.

Q. Your former position with that company was in the Midland office, is that correct?

A. I was District Engineer for the Midland District.

Q. And in your capacity in both of those positions have you kept yourself informed with respect to the Tubb Gas Pool and particularly the Ohio Oil Company's operations in that pool in Lea County, New Mexico?

A. I have.

Q. Mr. Spellman, you have testified before this Commission in your---in the capacity of a Petroleum Engineer before, have you not?

A. Yes, sir.

Q. Are the witness' qualifications accepted?

MR. MANKIN: They are.

Q. Mr. Spellman, I hand you a plat marked Exhibit No. 1, the Ohio Oil Company, Case No. 1025, and ask whether that plat was prepared under your direction--under your supervision?

A. It was.

Q. The area involved in this case, being the proration unit formerly approved by the Commission in its ---by Order No. R-545 is the N/2 of Section 11, Township 22 South, Range 37 East, is that not correct?

A. It is. It comprises the Ohio Oil Company's Lou Worthan lease.

Q. And that acreage is all under the same lease then?

A. Thats right.

Q. The Ohio owning all of the working interests except as to certain shallow rights in the west 160 acres, is that right?

A. Thats right.

Q. And those shallow rights are not involved in this case, they extend only about 4,000 feet, I believe is correct.

A. Right.

Q. For the purpose of the record, state if you will, the wells which have been designated by colors outside of the proration unit here involved? That is all of the wells outside of the proration unit are not colored, some of them are, which ones are the ones that have been designated with colors?

A. Those that are colored are ones which our records reflect are producing from the Tubb pay. The combination of colors indicates, in the case of a dual, the other zone in which the well was completed.

Q. And the colored code shown on the Exhibit is indicative of the formation in which the well is completed, according to our best information, is that correct?

A. Thats correct.

Q. Now then, the wells within the proration unit of the Ohio which is here involved are all designated by colors, is that correct, sir?

A. Thats correct.

Q. Two of those wells, Nos. 1 and 2 in the northwest quarter of the section are indicated as Penrose-Skelly wells and those are wells of another operator, is that correct?

A. That's correct. That is so marked on the map also, that the other operator has those wells.

Q. And the other wells within the N/2 of that section are all the Ohio Oil Company's wells?

A. That's true.

Q. And at the present time our Lou Worthan No. 9 is producing from the Tubb Gas Pool. It is a dual completion in the Tubb and what other formation please?

A. A dual completion in the Tubb and in the Blinebry.

Q. Is there another Blinebry well on our lease?

A. The No. 12 is a dual completion with----between the Blinebry and the Drinkard.

Q. And that well is over in the south----

A. It is located in the SE/4 NE/4 of Section 11.

Q. Mr. Spellman, after making a study of the wells that are on the lease and considering the fact that our Well No. 9 has now been classified as a marginal well, as far as Tubb gas production is concerned, will you state whether you have selected or recommended a well to be dually completed or recompleted in the Tubb Gas Pool somewhere else on that acreage of Ohio's?

A. Well No. 11 in the SE/4 NW/4 of Section 11 was selected as the well in which an attempt should be made to produce or complete for Tubb gas production.

Q. Where is that well presently completed? What formation?

A. It is now completed in the Drinkard pay.

Q. And it is proposed to either dually complete or recomplete the well in the Tubb formation?

A. Thats correct.

Q. Now why was it that that well was selected, Mr. Spellman, over the other wells on the lease?

A. For two basic reasons. One being that it was nearer the middle of the lease and the other reason was that it presented better chances in our opinion, to mechanically effect this dual completion.

Q. Mr. Spellman, would you state in your opinion whether all of the N/2 of this section 11 is productive of gas from the Tubb formation?

A. It is.

Q. With respect to Well No. 11, Mr. Spellman, would it be your opinion that Well No. 11 would as effectively drain the NE/4 of the Section 11 as would Well No. 4 for example, or a well at that location?

A. It would, for practical purposes, be as effective in drainage.

Q. Could you compute with any degree of accuracy the difference in the drainage in the Tubb formation that would occur from a Tubb well at the location of Well No. 4 and one at the location of our Well No. 11?

A. Not with any degree of accuracy.

Q. With respect to the correlative rights of the operators adjoining the N/2 of Section 11 on the south, west, and east, would you say that those correlative rights would be damaged or injured by the completion or recompletion of Well No. 11 as a Tubb gas well?

A. No, in my opinion.

Q. Would there be affected anymore one way or the other, those correlative rights, by the completion or recompletion of Well No. 4 as a Tubb gas well?

A. There would be no difference. I might point out of course that No. 4 now is not in shape to dually complete inasmuch as it is only been drilled to the Paddock which is a considerably higher section than the Tubb pay.

Q. But, I am speaking with reference to the location-----

A. Yes.

Q. I selected that well to demonstrate the differences in the location and between the one quarter section and the other quarter section for a Tubb well.

Q. Mr. Spellman, do you know how much it would cost to drill---approximately how much it would cost to drill a well to the Tubb formation in this area?

A. Approximately \$100,000.

Q. Do you know approximately what would be the cost of dually completing or recompleting Well No. 11 as a Tubb gas well?

A. We estimated that it would cost \$17,500.

Q. In your opinion, Mr. Spellman, as a Petroleum Engineer, taking into consideration the variable and in some respect uncertain factors of a pay out, would you recommend to the Ohio Oil Company or any other operator the drilling of a well to the Tubb formation alone, the drilling of a new well in this case?

A. Not for the Tubb alone, especially for a 160-acre allowable.

Q. And I believe the plat demonstrates that there is a Blinebry completion on each of the two quarter sections that are here involved, is that right, sir?

A. There is. Wells No. 9 and 12.

Q. So that the drilling of a dual Blinebry-Tubb well in the east quarter section there would be of no benefit as far as the Blinebry completion is concerned?

A. Thats correct.

Q. The Well No. 9 has been classified as a marginal well, I believe that is right, is it not?

A. That's right.

Q. And will you state what is the customary allowable set for that well in its marginal status?

A. For the past several months it has received an allowable of 22,000 Mcf per month. The allowable started in July of 1955.

Q. What is the maximum amount of liquid that that well has produced in any one month since that time, Mr. Spellman?--or since its completion in the Tubb formation?

A. Since its completion, our records indicate that the maximum liquid production from the Tubb No. 9 has been 345 barrels, which was in the month of May, 1955.

Q. And the lowest liquid production from the Tubb in that well for any one month?

A. Since its completion, in the month of August, 1954, it produced 48 barrels of liquid.

Q. Was that in the first month of completion? Was that a full months production?

A. It was a full months production. The gas liquid ratio for that month was 230,813 cubic feet per barrel.

Q. And that ratio has varied upward and downward during the life of the well, is that right?

A. Yes, sir.

Q. Mr. Spellman, if the Ohio is not granted an opportunity here to recomplete or dually complete another well into the Tubb formation, so as to be able to produce a 320-acre allowable, state whether in your opinion, the Ohio would be deprived of an opportunity to recover its fair and equitable share of gas from the Tubb formation?

A. It is my opinion that it won't.

Q. Mr. Spellman, would it-----if we were required to say on Well No. 12, to dually complete that well as a Tubb gas and a Blinebry gas well, what would be the effect in reference to the Drinkard production?

A. Naturally, the Drinkard production in that particular well would have to be abandoned.

Q. And your plan of dually completing or recompleting No. 11 would----if we were able to successfully dually complete it, we would still have the benefit of that Drinkard production from No. 11, is that right?

A. Thats right.

Q. Mr. Spellman, would you look to the southwest on the plat to an area outlined in dotted black or dashed black lines, 240 acres of area there that shows a Blinebry-Tubb gas well dual completion. That 240-acre unit is the Skelly Oil Company unit, is that not right?

A. That is correct. Skelly Oil Company's Baker lease. It comprises the--- the unit is comprised of the SW/4 of Section 10 plus the W/2 SE/4 of the same section.

Q. State in your opinion whether our Well No. 11 completed into the Tubb Gas Pool would drain the NE/4 of Section 11 and the E/2 of the NW/4 of Section 11 as effectively as the Skelly well will drain its 240 acres in that unit?

A. It would.

Q. Mr. Spellman, with reference to the correlative rights of the adjoining owners and with reference to the prevention of waste, what difference would it make whether the Ohio's 320-acre allowable is produced from one well or two wells on its 320-acre unit formed?

A. I don't believe there would be any difference---there would be no difference.

Q. There was a period in which this Well No. 9 actually did produce a 320-acre allowable, is that not right, sir? From the Tubb formation?

A.. 320-acre allowable?

MR. COUCH: Yes. There were several months in which it produced twice as much as a 160-acre allowable.

A. True.

Q. And that is shown by the records of the Commission as to production from this well, is that not right?

A. That is true. That is correct.

Q. Mr. Spellman would you find it objectionable from the standpoint of allocation of production between the two wells on this 320-acres that the Commission place a limitation on the amount that either of the wells could produce, as long as that was a reasonable limitation?

A. So long as it was reasonable, there would probably be no difficulty associated with our producing those wells.

Q. And if the limitation were to the effect that no one well could produce in any proration period more than 75% of the volume of gas of which that well could produce if it were the only well on the unit, would that be a reasonable limitation in your opinion?

A. I think that would be flexible enough.

Q. And would that injure the correlative rights of adjoining owners, in your opinion?

A. Not in my opinion.

Q. Would it cause waste in your opinion?

A. No, it would not.

Q. Would it protect the correlative rights of Ohio?

A. Yes, sir.

Q. Would it prevent waste?

A. Yes, sir.

Q. I have no further questions.

MR. MANKIN: I have one question, Mr. Spellman. I believe you have been doing some testing on this well in question, Well No. 11, to decide whether you should abandon the Drinkard zone or dually complete it. Has a decision been reached? Of course it is not a portion of this case but are you attempting in your latest status that it shall be dually completed?

A. That is my understanding, yes, sir.

MR. MANKIN: In other words, you are not attempting to abandon the Drinkard zone as a result of your tests?

A. I don't know enough about the test to be able to state positively what the decision has been.

MR. MANKIN: Of course, that dual completion would be handled separately and possibly by administrative approval if that were so decided. Any further questions of the witness?

MR. CAGNE: My name is Jack Cagne, I represent Shell Oil Company. I would like the following statement to be entered into the record.

MR. MANKIN: We will take the statements in a minute. First we have questions of the witness. Does anyone have questions of the witness?

MR. WEIDEMAN: Yes, John Weideman, Petroleum Engineer for Continental Oil Company. Mr. Spellman, according to my information, Ohio Oil Company operates Wells No. 1, 2, 3 and 4 in the NE/4 of Section 11 and they are completed in and producing from the Paddock, is that correct?

A. That is correct.

MR. WEIDEMAN: I notice according to the March oil proration schedule of the Commission that one of these wells, in particular Well No. 2 was assigned an allowable of 4 barrels a day and indications are that it is at or very close to its economic limit. I was wondering what size casing was set in that well and whether you consider it economically feasible or mechanically possible to abandon that well in the Paddock and deepen it to the Tubb to produce Tubb reserves.

A. I certainly couldn't make much of an opinion without having seen some study made of the problem.

MR. WEIDEMAN: And I notice in the first part of your testimony, I might have misunderstood, but I understood that you to say you were abandoning the Drinkard in Well No. 11, and of course you corrected that, but I would like to point out though that according to the schedule there is a 7-barrel well, Well No. 11, and of course if you abandon it to reach the Tubb it would be just as feasible or more so to abandon the Drinkard zone in Well No. 12 in the NE/4 of the section and make it a gas-gas dual producing from the Blinbry and Tubb gas pools. It seems to me that that would be a logical procedure.

A. We didn't consider it so. Particularly on our experience with stimulation of the Tubb. We find that----it is our opinion that when the stimulated----the zone to be stimulated is higher than some other zone that has been completed, it is easier to stimulate than it is to try to stimulate the zone below another zone. That was the mechanical feature of-----

MR. WEIDEMAN: Yes, I see it. But I was just bringing the point to be considered that the Drinkard abandon----that could be abandoned in No. 11 in order to make a single completion in the Tubb, you could certainly figure that 12 which is even less productive could be abandoned in the Drinkard and made into a gas-gas dual.

A. Well, I haven't seen the production tests yet so I-----

MR. WEIDEMAN: No, I realize the contingent upon the production tests.

A. You are comparing production on allowable only, I think-----

MR. WEIDEMAN: Well, I notice that according to the last production test that 4 barrels evidently represents its maximum capacity also.

A. It may have been, I don't know whether it has been-----

MR. WEIDEMAN: It would seem to be, just this casual observation here, I am not acquainted with well records of course, but there does appear to be some possibilities for development in the Tubb without actually drilling a new well. That is developing the Tubb in the NE/4 of Section 11.

A. Deepening is one form of drilling.

MR. WEIDEMAN: Well, the economics would be much less severe. A lot would depend on casing size, I realize that. That's all I have.

MR. MANKIN: Is there further question of the witness?

MR. BUMPASS: C. N. Bumpass, Gulf Oil. Mr. Spellman, Mr. Weideman has questioned you on one of my questions possibly you can----just ask this--do you have any idea of the approximate cost of the take required to deepen one of the Paddock wells?

A. That was part of what I was answering awhile ago when I said no studies had been made, but the estimation of it, he said.

MR. BUMPASS: Alright. For how long is this well capable of producing 320 acres, sixteen months, five months, four months-----just approximately?

A. About four or five months there.

MR. BUMPASS: What was the---do you have a deliverability on the well when it was completed---just some idea of back-pressure and proportionate volumes.

A. It had an absolute open flow of about 2 1/2 million cubic feet a day as I recall, after stimulation.

MR. BUMPASS: Lets see, it was 4 1/2 wasn't it?

MR. COUCH: Would you like to take time to look and see if you have that information, Mr. Spellman.

A. Yes, I will look and see if I have the information.

MR. BUMPASS: All I want there is the deliverability.

MR. COUCH: If you don't find it readily there, it might---it may be a part of the record in the original application in which the Commission approved this 320-acre unit initially. Thats Case 782, Order R-545, entered November 17, 1954.

MR. MANKIN: It was apparently thought at that time that it must be a commercial well.

MR. BUMPASS: The only thing I was trying to draw out there was some idea as to the quality of the well as compared to its capability to producing the allowable for the length of time that it was.

MR. MANKIN: Any further questions of the witness?

MR. RIEDER: Without belaboring the point, I would like to ask you again, and possibly you might be able to give me a little more complete answer, what exactly promoted your selection of Well No. 11 over lets say one of the wells in the NW/4?

MR. COUCH: You mean the northeast quarter?

MR. RIEDER: Yes.

A. I think one of the primary factors is that it can be dually completed as it now exists-----

MR. RIEDER: Without any further work?

A. Other than the dual completion.

MR. RIEDER: Do you happen to have the size casing in your Well No. 11?

A. I should have it. You asked the size of the oil string in Well No. 11 on the Lou Worthan lease----5 1/2 inch 17 pound J-55 casing.

MR. RIEDER: Now, Mr. Spellman, are you familiar with the radius of influence that has been postulated by the Commission staff?

A. Radius of influence postulated?

MR. RIEDER: Well, brought forth by the staff of the Commission to use as a guide for determining the radius of drainage.

A. The Commission----I don't know how far they would consider a well would drain.

MR. RIEDER: Well then you are not familiar with that radius of influence? Do you sir, have a -----.

MR. COUCH: Excuse me, Mr. Spellman, but you made a statement or there was a shaking of heads-----

A. I wasn't-----

MR. RIEDER: Do you have, sir, a structure map covering your acreage? Are you sufficiently aware of the geological conditions to state the general quality of the Tubb zone in your----in the particular southwest quarter of the northeast quarter?

A. In----compared to the reservoir as a whole you mean?

MR. RIEDER: As compared to possibly the reservoir that it might appear in your Well No. 11.

A. I can't say anymore than that it would probably be very comparable, or possibly be comparable. That is being pretty vague.

MR. RIEDER: You made the statement, sir, that you felt that the Well No. 11 could adequately drain the unit to be assigned to it and that it would not contribute to any

reservoir waste, is that correct?

A. Thats right, in my opinion.

MR. COUCH: Just a minute, I believe the record can show that the testimony was that the witness was of the opinion that Well No. 11 would as effectively drain that northeast quarter of the section as would a well completed in the Tubb at the location of Well No. 4. I think that is what he testified. As to whether it would adequately drain the unit or not adequately drain the unit, I don't believe he testified one way or the other.

A. Thats right, I had not testified previously to that, no, thats right. We were comparing locations at 11 and where No. 4 is.

MR. COUCH: I believe thats right and you testified also that it would as effectively drain the NE/4 and W/2 NW/4 as effectively as the Skelly well would drain the 240 acres assigned to it. I believe you meant those two wells.

MR. RIEDER: Yes, sir. And though it was probably obscure, that was what my questioning was leading towards. The Skelly well is situated very favorably on the structure. That was the reason for requesting the information on particularly the E/2 of the NE/4 which structurally might not be as favorable certainly as the Skelly well and the quality of the formation at that point might not be quite as favorable. More particularly we are concerned with the prevention of reservoir waste by the dedication of a specific amount of acreage to a particular well. In this particular case, that was the reason for my questioning Mr. Spellman, and I will make it a direct question.

A. Alright.

MR. RIEDER: Do you feel, sir, that there would be any appreciable waste of the reservoir energy and product by the dedicating of so large a unit to be drained by a well so located as your Well No. 11?

A. No, sir, I do not.

MR. MONTGOMERY: Mr. Spellman, the well is presently completed in the Tubb formation, why do you have a marginal well?

A. It will not make its allowable.

MR. MONTGOMERY: Thats a good reason. Is it because it has depleted its reserves?

A. No, I don't think so.

MR. MONTGOMERY: Is it because of mechanical difficulties?

A. No. You might call it a low productivity well.

MR. MONTGOMERY: Why do you think the well is a low productivity well? What basis would you say?

A. In part, it may be the result of the inability to stimulate it as now seems the best practice in the Tubb.

MR. MONTGOMERY: Do you feel that you will be able to get the----a better completion on Well No. 11 and more efficiently drain the 320 acres which you are asking for?

A. We think we can make probably a better well in there.

MR. MONTGOMERY: Thats all, thank you.

MR. MANKIN: Any further questions of the witness?

MR. COUCH: I have a question which I would like to ask which I hope will be in the nature of a clarification. Mr. Spellman, in order to dually complete or to recomplete any other well on our proration unit into the Tubb formation, that is any well other than No. 11, would it or not be necessary---lets say with the exception of Well No. 12----all except Well No. 12 and No. 11---would it not be necessary to engage in further drilling operations--that is to drill deeper?

A. The No. 10 would have to be drilled to the Drinkard too. It is in the NW/4 NW/4 of Section 11.

Q. That is further from the center of the 320 acres than No. 11 is of course.

A. Yes, sir.

Q. In Well No. 12, if the Drinkard were to be abandoned in that well---- I would like for you to clarify or state for the record again if you will, the---what you meant by stimulation being more difficult, stimulation of the Tubb formation being more difficult in Well No. 12 than it would be in Well No. 11.

A. I think that it is-----

Q. In other words the reason why it would be more difficult.

A. I imagine that it is a result of the fact that No. 12, if it were----or if an attempt were made to recomplete in the Tubb, we would have the Blinbry perforations open as they are now above the Tubb zone where as in 11 the only portion open to the well-bore would be the Drinkard which would be the lower.

Q. I believe that its your testimony, that stimulation of a deeper zone when there is a shallower zone open in the well-bore is more difficult than would be to stimulate a zone that you encounter first as you start down the well-bore.

A. Thats right.

Q. But, the same reason that you stated that it would be difficult to stimulate our Well No. 9, is that correct? Because the Tubb formation is below the Blinbry of course, and that is the completion of that Well No. 9.

A. Thats right.

Q. The allowable--the unit allowable in the Tubb Pool, has that been steady or fairly widely fluctuating from month to month since the completion of our Well No. 9?

A. It has fluctuated quite a bit. I can't say off hand whether it has fluctuated

anymore than other gas pools in the prorated areas but it has fluctuated considerably.

Q. Some of the months in which Well No. 9 failed to make its full 320-acre allowable, that was due to failure to actually take that amount of the allowable on the part of the pipeline, is that right, sir?

A. At times it was.

Q. And on other occasions it was because the well would not produce the full 320-acre allowable against the line pressure?

A. Thats right.

Q. What is the current allowable fixed for Well No. 9 as a marginal well?

A. In the Tubb it is 22,000 Mcf per month.

Q. And what was the production of that well in the last month for which you have production figures for that?

A. So far we have not received any figure for later than December, 55 and it produced 24,893 Mcf of gas.

Q. And what was the 160-acre allowable for the Tubb formation for that month?

A. For that month it was placed at 31,279 Mcf.

Q. That was a 160-acre allowable?

A. Thats a 160-acre allowable.

Q. What was it the month before that?

A. The month before that the 160-acre allowable was 5,060 Mcf.

Q. Just roughly looking at the month allowable for the Tubb 160-acre unit allowable over a period of the last seven or eight months there of 1955, state just generally what appears to be about the 160-acre unit allowable--is it greater or less than the 22,000, thats on an average now.

A. On an average-----

Q. Without mathematical computing.

A. It looks like it is a little less.

Q. It would be a little less than 22,000 Mcf. So when you are speaking of this well being possibly a low productivity well did you have reference to the fact that it was not able to make a 320-acre unit allowable?

A. That's what it amounts to.

Q. But it is able to make what appears to be somewhat near the average of a 160-acre unit allowable?

A. It appears to be in the Tubb.

Q. Mr. Spellman, is it our intention---is it the intention of the Ohio Oil Company to abandon any commercial production, any production as long as its commercially profitable to produce the oil?

A. We would attempt not to.

Q. We are not going in then with the idea of purposely abandoning the Drinkard formation in any one of these wells so far as our present plans are concerned, is that right?

A. That's right.

Q. Would we like an opportunity to attempt to complete in the Tubb without having to---without knowing that we have got to abandon the Drinkard well or the Paddock? I mean wouldn't we like the opportunity to do it without abandoning that oil production? Would we like an opportunity to try to complete a Tubb well without abandoning any oil production?

A. Certainly, if the production would otherwise be abandoned it being commercial at the time.

Q. If we had some oil being produced and one way to complete in the Tubb without abandoning that oil, why which would your recommendation be to the company?

A. Naturally to choose that in which we would not have to abandon the production.

Q. What is the least expensive way that the Ohio Oil Company can complete a well in the Tubb formation on the 320 acres?

A. Dual completion of an existing well through that zone.

Q. Alright, and looking at all the wells that we have on this Exhibit 1, what is---what will be the least expensive operation so far as you can tell in advance?

A. Well, the recompletion of either well, 10 or 11.

Q. 10 or 11, and of those two you recommended No. 11 for the reason that it is nearer to the center of the 320 acres, is that right?

A. Yes, sir.

Q. For the record, I believe Well No. 11 is 2,055 feet from the West line of the Section, is that right, sir?

A. Let me check my record just a moment. This record reflects that it is 1905 feet from the North line and 2055 feet from the West line of Section 11.

Q. Then by mathematical computation 2055 feet from the West line is 405 feet from the northeast quarter of the section, isn't it? 405 and 2055.

A. 2055 subtracted from 2640, I get 585.

Q. 2055 plus 405 makes it 2460, right?

A. Thats right.

Q. Thats halfway across the section?

A. No. 2640 is halfway across the section.

Q. I transposed. Well how far would that be---what is the distance between Well No. 4 and Well No. 11? Thats what we are trying to get to, can you tell me that?

A. I think Well No. 4 is normal---in the middle of a 40-acre unit, 1245 feet apart.

Q. 1245 feet. I have no further questions.

MR. MANKIN: I have a question, Mr. Spellman. Go back to the particular point of Well No. 12 , of course you indicated the possibility it would be more difficult and would therefore----you would have to kill the Blinebry zone to attempt such a dual completion that was suggested here, was that correct? Which might endanger the well?

A. That might also endanger the Blinebry although I hadn't brought out that particular point.

MR. MANKIN: From a structural standpoint as you remember, it is the NE/4 NE/4 of that particular Section 11 lower structurally than where your Well No. 9 is located in the SW/4 NW/4 , as you recall from your knowledge?

A. Is the NE/4 NE/4 lower than the SW/4 NW/4-----

MR. MANKIN: In other words going from southwest to northeast across your lease, is it becoming lower where your Well No. 1 is located, as you know it from the structural interpretation.

A. There is a variety of highs located through that area and I-----

MR. MANKIN: You don't have knowledge right now as to structural position of one edge of your lease in comparison to the other?

A. I have knowledge, but I don't know what it is.

MR. MANKIN: Do you feel that there is any great relief?

A. No, sir, I don't believe so.

MR. MANKIN: It would be fairly small in comparison to the entire Tubb picture?

A. By comparison with the normal amount of closure there, yes.

MR. MANKIN: Then you do feel that this well location, Well No. 11 added to the location of Well No. 9, that the two wells would properly and efficiently drain the lease as a best end to develop the wells on this lease without further drilling costs?

A. Yes, sir.

MR. MANKIN: Is there further question of the witness? If there is no further question of the witness-----would you like to introduce these exhibits?

MR. COUCH: I offer in evidence Exhibit 1.

MR. MANKIN: Is there objection to the entering of Exhibit 1 in evidence?

If not it will be so entered. The witness may be excused. Is there any statements that are to be made in this case?

MR. CAGNE: Jack Cagne, Shell Oil Company. The 320-acre unit comprising the N/2 of Section 11 is the only 320-acre unit in the Tubb Gas Pool. The original 320-acre unit comprising the N/2 of Section 11 was originally approved on the inherent basis that the withdrawal point Worthan 9 could support a 320-acre allowable. The well hasn't demonstrated its ability to do so. It appears that the original Commission order designating 160 acres as a standard unit in the Tubb is the doctrine adhered to. Consequently we feel that Worthan 11 on the same 160 unit could be recompleted in the Tubb and supplement production of Worthan 9 only on the basis of 160 acres, and feel that the Ohio Oil Company should give consideration to some type of Tubb completion in the NE/4, thereby returning and conforming to standard unit size.

MR. WEIDEMAN: John Weideman of Continental. I would like to give Continental's opinion in Case No. 1025 by reading this statement into the record.

"Although Continental Oil Company is not an offset operator, we, as an operator in the pool, do wish to protest this application. While we are aware that we probably were somewhat remiss in not voicing objections to the application by which this 320-acre unit was originally established, we do not wish to be further remiss in not taking this, the first opportunity, to call attention to the inequities inherent in this unit since it is established. As stated in the application in this case, the 320-acre proration unit

in question was established by the Commission's Order No. R-545 entered November 17, 1954, in Case No. 782.

Order No. R-545 does not contain an expressed finding that the unit well involved in that order will adequately drain an area larger than a standard 160-acre unit. On the date the 320-acre unit was established by Order No. R-545, the special pool rules applicable to the Tubb Gas Pool were contained in Order No. R-373 A, which was adopted on November 10, 1953. Order R-373 A contains no expressed finding that anything larger than a standard 160-acre proration unit will be drained by a well producing from the Tubb Gas Pool. The current spacing rules and regulations for the Tubb Gas Pool were established by the Commission in its Order No. R-586 entered April 11, 1955, in Case No. 728. Finding No. 9 (of Order No. 586) states 'that no desire was presented to justify a change in the size of the standard gas well unit in the Tubb, Byers-Queen, or Justis Gas Pools from 160 acres.' It seems clear, therefore, that the Commission found that one well will adequately drain no more than 160 acres in the Tubb Gas Pool.

It also seems clear that by now filing its application in Case No. 1025, requesting that the gas proration unit established by Order No. R-545 be amended to permit production therefrom by two wells, that the applicant is not only admitting, but also is representing that one well will not adequately drain an area in the Tubb Gas Pool larger than a standard 160-acre unit. Certainly, if the applicant's one well currently producing from the Tubb Gas Pool can adequately drain the 320-acre unit in question, there is no need for applicant's being allowed to produce a second well from the Tubb Pool, because allocation in this pool is calculated on the basis of 100 percent acreage based upon the standard 160-acre proration unit, and this well now has an allowable

equal to twice that applicable to a standard 160-acre unit. Therefore, applicant will not be denied of a satisfactory opportunity to recover its just and equitable share of the natural gas in the Tubb Gas Pool if this application is denied. On the other hand, bearing in mind the location of the well now producing from the Tubb Gas Pool under this 320-acre unit, and also bearing in mind the location of applicant's Lou Worthan well No. 11 on this unit, said well No. 11 being the one applicant expects to dually complete in the Tubb Gas Pool, it seems quite apparent that if the current well (being applicant's Lou Worthan Well No. 9) will not adequately drain the subject 320-acre unit, the two wells likewise will not adequately drain such unit, because of their proximity one to the other, and further because of their awkward locations on the unit. In this connection, it may be significant to note that the third sentence of the actual paragraph of the application in this case states that " it is probable that the Lou Worthan Well No. 9 (which is the existing well) will not be able to produce the entire gas allowable to be hereafter assigned in connection with the proration unit". It would appear that applicant's position would be much more equitable if the well it expects to dually complete in the Tubb Gas Pool, if this application is granted, were located on the East 160 acres of the 320-acre unit, rather than being located on the same West 160-acres on which Well No. 9, now producing from the Tubb Gas Pool, is located.

It is the opinion and recommendation of Continental Oil Company that this application should be denied. It is further our opinion and recommendation that this 320-acre unit be vacated and in effect divided into two standard units of 160 acres each, and that the Eastern half of the present unit be allocated only to a well drilled or recompleted in the Tubb Gas Pool within the Eastern half of such unit.

In the event, however, the Commission should grant the application in this case, we urgently recommend that a definite limitation upon the volume of gas which

may be legally produced from either of the two wells on the 320-acre unit be written into the order granting this application. In this connection the restriction suggested in the application appears to be satisfactory only in the event that the period at the end of the suggested restriction be changed to a comma and such a restriction be continued by stating: "but in no event shall the total volume of gas produced by the two gas wells on this proration unit during such proration period exceed the total volume of gas which said two wells should be permitted to produce during such proration period if each of said two wells were located upon and producing from a separate standard 160-acre proration unit. "

MR. MANKIN: Any further statements to be made in this case?

MR. COUCH: Ohio would like to have an opportunity to make a statement also. To start off with I am not right sure what the language after the period thats changed to the comma means. I would like an opportunity to give that a little serious consideration before acquiesing in its inclusion and limitation. I think certainly that the area of production from the two wells would never be permitted to be more than could be produced from one well on such a unit under the suggested limitation that we have included in our application. I point out to you, Mr. Examiner, and to the Commission, in its final consideration of this case , the fact that under the existing Tubb rules the Ohio would be permitted to apply for two non-standard units, sort of dog-leg interlocking fashion on this N/2 of Section 10--Section 11 and that such units have been granted in other cases and I think that I am correct in that they have been granted and presently exist in the Tubb Gas Pool. That is to say that the---a unit---two units, one composed of all of the NE/4 of the section except the NW/4 of that quarter section and including as part of that unit the SE/4 NW/4 of the section. That would be one unit and the other unit would be comprised of the W/2 NW/4 and NE/4 NW/4 and the NW/4 NE/4 of the

section. Now, complicated as that gets it still gets to the same proposition that there are two wells that--the active allowable of those two wells is on an acreage basis, 320 acres, a 320-acre allowable. There can be little if any difference in that situation and in the relief which the Ohio seeks except that this arrangement which we ask for will permit us to use both of those wells in the best manner to recover the 320-acre allowable, subject to the limitation we have suggested. Now, recovering the--that portion of the gas which is attributable to a 320 acres is the right which the Ohio thinks the statutes give to it, and whether one well is located on one quarter section and the other is located in the other adjoining section can make no material difference in how much gas the Ohio is entitled to receive from the Tubb Gas Pool. Particularly, as I have stated, when we consider the situation of these dog-leg units it would be possible to just arbitrarily draw a line through the Ohio's lease in some fashion that would drop one well in one unit and one across the line in the other unit and we can see in that arrangement nothing that changes any equity that doesn't already exist. We know that we would be entitled to that sort of situation, that sort of relief. I think if that's what we had asked for there would be no objection by anyone that has made a statement here today and I have yet to see or to be able to understand the distinction or difference in any matter of substance that would exist between what we have asked for and the two interlocking unit that I am sure no one would object to. The only difference is that the Ohio has a better opportunity to recover that part of the gas that it has a right to get out of the Tubb Gas Pool, and to do it in a most effective and efficient manner without going over and attempting to complete a well or to drill deeper or shut-off the Blinberry zone and try to stimulate the Tubb zone and involve ourselves in those matters which might be---certainly they would be more expensive and they might very well be disastrous. They might result in leaving oil or gas in the ground that

otherwise we could get out. In closing, I have this one comment to make. That the Commission by statute in allocating allowables within a pool is authorized to take into account these matters of drainage, and counter-drainage, and the statutes themselves recognize the proportion that drainage can be equalized by counter-drainage and that the Commission should take that into account in evaluating and protecting the correlative rights of the parties and in fixing allowables. We think the Commission is fully authorized and has the power to do that in this situation, we think that to deny the relief which the Ohio has asked would be to deprive it of its statutory right, to an opportunity to recover without causing economic waste, its fair share of the oil or gas in the reservoir.

MR. MANKIN: Any further statements? For clarification in regards to your closing statement, Mr. Couch, I notice you originally asked for an allocation of allowable of what was approximately 75 percent from anyone well. Your latest contention in your closing statement, however, indicated the possibility that it might consider two units, of course there ---that would be a equal or 50-50 percentage, rather than a 75-25 as you suggested by a prior thing. I just wanted to clarify the record. Apparently they wouldn't be the same as far as allocation from any particular well was concerned.

MR. COUCH: As far as the production from any particular well is concerned I concur but as far as the production from the acreage which the Ohio holds under lease is concerned would be identical, it seems to me.

MR. MANKIN: Except that it might be rare withdrawals taken from a particular well under your original contention then it would be under the second contention of these dog-leg units that you speak of----.

MR. COUCH: It would be. I am not speaking of these, Mr. Examiner, with

the idea that we want that or that we asked for it. I think it would be a highly fictional solution to a problem that we have presented a very practical solution to and I can't see that we would harm or endanger anyone's rights any more than what we have asked for right here and that is the single unit with both wells on it and no line drawn within our own lease to tell us which well we can produce the gas from and we are entitled to produce 320 acres worth of gas and allowable to that amount. Now which well we take it from, we submit, is really of no consequence. If there is some damage to the correlative rights of somebody else, that would be the only reason that we should be limited in the amount of gas we should take or could take from either of the two wells, and we think the limitation of 75% we have quoted in our application gives adequate protection to anyone who might assert or believe that they are damaged in that regard and we think that there will be no one damaged in that regard even if we took all from either well. But we are willing---perfectly willing to submit to the 75% limitation. Have I clarified the point?

MR. MANKIN: I just wanted to put that particular thing into the record to indicate that there was that difference.

MR. COUCH: There will be variances from that particular well, that's right.

MR. MANKIN: Is there anything further?

MR. WEIDEMAN: May I add one more point in this case. That this unit is nearly completely surrounded by proration units of the standard 160 acres or less and there are no offsetting, either diagonally or direct, units of over 160 acres and all those operators in good faith developed on 160s or less and that they must keep their wells in condition to produce the allowable for 160 acres or suffer the loss.

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

STATE OF NEW MEXICO)
) ss
COUNTY OF SANTA FE)

I, Joan Hadley, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission Examiner at Hobbs, New Mexico, is a true and correct record, to the best of my knowledge, skill and ability.

Dated at Santa Fe, New Mexico this 20th day of March, 1956.


