BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE NO. 1461

TRANSCRIPT OF HEARING

May 28, 1958

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I N D E X

BEFORE THE
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IN THE MATTER OF:

CASE NO. 1461 Application of A. A. Greer, et al., for an exception to the acreage factors established by Order No. R-565-C for certain wells in San Juan County, New Mexico. Applicant, in the above-styled cause, seeks an order granting an exception to the acreage factors provided in the Special Rules and Regulations for the Aztec-Pictured Cliffs Gas Pool and Fulcher Kutz-Pictured Cliffs Gas Pool, as set forth in Order No. R-565-C: for one well in the Aztec-Pictured Cliffs Gas Pool and eight wells in the Fulcher Kutz-Pictured Cliffs Gas Pool which were drilled on 40-acre spacing prior to the establishment of 160-acre spacing in the aforementioned pools.

BEFORE:

Elvis A. Utz, Examiner

T R A N S C R I P T O F P R O C E E D I N G S

MR. UTZ: The hearing will come to order, please. The Examiner realizes that a number of you have time problems here. The fact remains that too many people have time problems and everybody can't be first. So, after Case 1461 we will take a very short Case 1463, and then we will go back in order. The next case after that will be Case 1448, which is the Ambassador case. We will do the best we can to get you out as fast as we can.

MR. PAYNE: Application of A. A. Greer, et al., for an exception to the acreage factors established by Order No. R-565-C for certain wells in San Juan County, New Mexico.

MR. VERITY: George Verity, appearing for the applicants.

MR. BUELL: Guy Buell, for Pan American Petroleum Corporation.

MR. UTZ: Any other appearances in this case? If not, the proponents may proceed.

MR. VERITY: Your Honor, this application is for an exception to the acreage attribution factor of Order No. R-565-C and a sequence order of A, B and C. I think C is the one that is actually applicable. The situation in San Juan County Pictured Cliffs formation is such that prior to the time that there was any spacing order there at all, the wells covered by this application were drilled on tracts of less than 160 acres, many of them on 40 acres, and such drilling was, of course, at that time in all respects proper. There was no order against it -- there was no application for any order against it, and then on June 22nd, 1948, the Commission promulgated Order No. 748, which order -- and if there are no objections, I want to introduce a copy of it at this time into evidence or make reference into the record which Order in Paragraph E, well generally, which order made a 160-acre spacing unit and in Paragraph E it provided to the following effect, that "for wells hereafter drilled, a general spacing pattern of one centrally located well on a unit of 160 acres, substantially in the shape of a

square, is required to protect the equalities of those having interests in the wells heretofore drilled on 160-acre tracts, for which general spacing pattern the pooling of properties should be encouraged when necessary."

Now, you will notice, Your Honor, that it points out that that is for wells hereafter drilled; the date of such order, as I previously pointed out was June 22nd, 1948. All of the wells that are covered by this application were drilled prior to that time and subsequent to that and on the 23rd of December, 1954 the Commission promulgated Order No. R-565 and at this juncture came along and penalized the wells that were previously drilled lawfully and legally on 160-acres by establishing a set of field rules which made an acreage attribution factor of 1 for 160 acres for a well with 160 acres and a factor of 160 divided into the number of acres if it was less than that. Now, currently and presently all of the wells that we have specifically designated in our application, as well as many other wells in the pool, as well as a few other wells in the pool, cannot continue to operate with an acreage attribution factor of 1 because the penalty puts them down into a bracket of allowable. Where Southern Union Gas Company produces them, the normal procedure is that they overproduce, then the well must be shut in and it just can't be started up again because it has flooded out. I want to introduce, if there is no objection, both this copy of Rule 748 and copy of Order 748 and Order R-565-C and call as a witness Mr. Leon Stearns.

MR. UTZ: You want Order R-565-C as Exhibit B.

MR. VERITY: And 748.as Exhibit A.

(Witness sworn)

L. G. STEARNS,

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

DIRECT EXAMINATION

BY MR. VERITY:

Q Will you state your name, please?

A L. G. Stearns.

Q Mr. Stearns, are you a partner in the BMNS Company?

A That's right.

Q Does that partnership operate the Brown No. 1 Well located in the northeast, southeast of Section 30, Township 30 North, Range 12 West?

A That's right.

Q And the Brown No. 2 located in the southwest, southwest of Section 29, Township 30 North, Range 12 West?

A That's right.

Q The Wyper No. 2, located in the southwest, southeast of Section 29, 30 North, 12 West?

A That's right.

Q And did you previously operate the Copp No. 1 in the southwest northwest of 29, 30 North, 12 West?

A That's correct.

Q What is the monthly capacity of those wells?

A At the present time?

Q At the present time.

A Well, at the present time, three of them -- two of them are dead and one is producing and one is plugged.

Q The Wyper No. 2 is producing?

A That's correct.

Q What is it capable of making?

A Well, last month during the period that we were allowed to produce, before we went over our allowable, it made two million, six hundred.

Q And that's wide open flow?

A That's right.

Q Now, you say three of these wells are not now producing. Tell us about the Copp No. 1, if you will, please.

A Well, it was -- we were over-produced, and under that acreage we have just forty acres and we had to shut it in and it was shut in for six or eight months and those old wells naturally make a small amount of water, and if you are not producing them more or lass steadily, they just go to water.

Q After that well was shut in, did you try to start it again?

A That's right, tried to start it, put a rig over it, but we could see -- under the present setup we could see it was not economically feasible and we were putting too much money in it, so we just plugged it.

Q What is the situation with regard to the Brown No. 1 and No. 2?

A They have a potential of being good wells. If we can get a little relief, we would like to go back in and work them over and put them on the line and try to realize the cost of our investment.

Q Is it the normal course of event in producing these four wells to run them wide open and over-produce them for a period of time?

A That's right.

Q And then they shut them in?

A That's right.

Q If this application is granted and you are given an acreage attribution factor of one, do you plan to go back in and work the Brown No. 1 and 2?

A That is right.

Q Can you do it with an acreage attribution factor of one-fourth?

A It is not possible at all.

Q These wells -- were all these wells drilled prior to June 22nd, 1948?

A They were.

Q When were they drilled? Just the year?

A '46 and 7.

MR. VERITY: That's all.

MR. UTZ: Are there questions of Mr. Stearns?

MR. BUELL: Yes, I have one, Mr. Examiner.

CROSS EXAMINATION

BY MR. BUELL:

Q Mr. Stearns, I am Guy Buell with the Pan American Petroleum Corporation. What would you say lifting costs ran your partnership on the gas wells a month, per well, per month?

A I would say the shape those wells are in that it would probably cost you at least twenty-five, thirty dollars apiece a month. They have to be blown regularly.

MR. BUELL: That's all, Mr. Examiner.

MR. VERITY: One more question.

REDIRECT EXAMINATION

BY MR. VERITY:

Q You are not calculating any workover?

A Absolutely not. That is just barely, as you say, lifting cost, no remedial work.

Q If because of allowable, you have to shut them in, you have to go back in and work them over?

A That's right.

Q And that would be in addition?

A That's right.

MR. BUELL: One more question, Mr. Stearns.

RECROSS EXAMINATION

BY MR. BUELL:

Q This might help us or a later witness might be able to tell us or you might. Could you give us the latest deliverabilities you have in this well in question, the latest deliverability tests, or will another witness have that?

A We can get it out of the proration schedule.

Q Would you mind stating it for the record?

MR. VERITY: We will when we call our other witness.

MR. UTZ: Are there any other questions of Mr. Stearns?

QUESTIONS BY MR. COOLEY:

Q Mr. Stearns, are you testifying to the fact that the allowable will result in premature abandonment in the wells to which you refer? A That's right.

Q Are you testifying as to what amount of allowable has to be assigned to these wells to avoid this premature abandonment?

A Would you state that again, please, sir?

Q What amount of additional allowable is necessary to be assigned to these wells to avoid premature abandonment?

A I would say as long as they are acreage factor of one.

Q Why do you feel that that is the key figure?

A For the simple reason that even with all they would make, it's not too much. To get your money back from a fair rate of interest, it is nip and tuck whether we can do that now. We hate to leave the gas that is remaining in the ground, we hate to walk away and leave it, but as the present setup is, that's about all we can do.

Q Do you feel that the assignment of anything less than the allowable of acreage factor of one to these wells would be sufficient to prevent premature abandonment thereof?

A No, sir. They are so small that the difference between wide open and 50 percent is so small we need every cent we can get.

Q By small, you mean the deliverabilities of the well?

A That's right. They are marginal wells.

Q Do you feel that there is sufficient differences in the producing capacities of these wells, one would be sufficient for others, and half would be sufficient for another?

A No. I think if we could get a full allowable that we would go in there and work over those wells and try to put them back on the line and, as I said, realize our investment.

Q Are the potentials approximately the same on all of these wells?

A Well, I wonder if we could just skip that to Mr. Greer. He has that information. I really don't know.

MR. COOLEY: Will you testify in substance, Mr. Greer?

MR. GREER: Yes.

MR. COOLEY: That's all the questions I have.

QUESTIONS BY MR. UTZ:

Q Mr. Stearns, can you tell me what it cost you per well to operate these wells over the past two or three years?

A Well, the past year and a half it has been nothing for the simple reason that the wells were not producing regularly and

went to water.

Q They have been shut in all the time?

A That's right. With the exception of the Wyper Well, these other wells will have to be worked over before they can be put on the line. The Wyper Well has been producing and is producing.

Q Can you tell me what it cost you per well to operate these wells during the period when they were producing?

A Well, we had a man blow them, and then if you figure that, it is eight blowoffs that we had put in there, I would say it would cost us about twenty-five dollars a month to have those wells blown.

Q Does that include any workovers?

A No.

Q How much would the workover cost on these wells, approximately?

A Well, the workover on the last well that we plugged, because we could see no relief, it cost us approximately twenty-one hundred dollars.

Q And that would be in addition to your, say thirty dollars a month that it costs you to operate them?

A That's right.

Q And how often do you feel that these wells might have to be worked over?

A Well, they are twelve years old, and we have never worked one over until this proration come along and they were shut in.

We have never been in any of them, so they evidently were in fair shape.

Q Your twenty-one hundred dollars would be spread over twelve years?

A Twenty-one hundred dollars was just spent in the last year. You could call it over twelve years, as far as we spent on the well.

Q Do you know how much allowable you would receive for this group of wells with an acreage factor of one?

A Well, on two of them we have 40. Now, that's a quarter, and on two of them we have 50 percent; just double that and four times the other one.

Q You don't have any idea of what the actual figure would be?

A The other witness can give you that.

Q Mr. Stearns, these wells you refer to, have they paid themselves out?

A No, sir, not as a group they have not.

Q How close to it have they come?

A I would say we've paid out about 80 percent.

Q 80 percent. Do you have any idea of the value of the equipment that you have on these wells?

A Yes, sir. We drilled seven wells, and they cost us one hundred six thousand.

Q And that is 80 percent paid for?

A That's correct.

MR. UTZ: Are there any other questions of the witness?

MR. VERITY: I have another question.

REDIRECT EXAMINATION

BY MR. VERITY:

Q Mr. Stearns, you testified it cost you twenty-one hundred dollars to work over a well. Now, you said you only worked that particular well you were referring to one time, and that it had been on production for twelve years?

A That's right.

Q You wouldn't spend that twenty-one hundred dollars over the twelve years, would you, because you don't need to work a well over until it becomes marginal? A That's right.

Q Then, it would be spread back to the time when the well became marginal, -- A That's right.

Q -- and also limit it back to the time when the proration order became stringent? A That's right.

Q How long a period is that? A A year and a half.

Q A year and a half instead of twelve years?

A That's right. We didn't spend a penny on it the first twelve years.

Q Now, is the acreage factor --

A I said twelve years. It would be ten years, '46 to '56, about ten years.

Q If the acreage attribution factor remains where it is

now, a quarter on these wells and half on one of them, I guess, how often would you have to work them over in order to keep them producing?

A Well, we have one producing now, and if it stays the same as it is, that's the way it will be.

Q If you worked the wells you've got there that are presently shut in, if you work them over and put them back on the line, how long would it be subsequent to that until you will have to work them over again?

A Well, if the gas would keep producing from a well, it ought to last a long time.

Q Well, if you overproduced, which it is the normal course of event, and they shut you in, then will you have to work it over?

A No, for the simple reason that we are not going to work it over until we get that factor change.

MR. VERITY: That's all.

RECROSS EXAMINATION

BY MR. BUELL:

Q Mr. Stearns, did I understand you correctly to say that these wells produced for ten or twelve years?

A That's right.

Q And about six or seven of those years would be prior to any kind of proration restriction, wouldn't it?

A That would be right.

Q And did I understand you correctly to say that they were

80 percent paid for?

A That's right. Those records can be produced.

MR. BUELL: That's all.

QUESTIONS BY MR. UTZ:

Q Mr. Stearns, there was a period during the past, well, since the proration where low acreage proration wells received a breaking point allowable, during the period that we had a breaking point in our proration formula, and those wells of low acreage were assigned such a breaking point allowable. Do you recall?

A No, I sure don't.

Q Has the allowable at any time during the proration been sufficient for you to operate these wells with a reasonable profit?

A No.

MR. UTZ: Are there any other questions of the witness? The witness may be excused.

(Witness excused)

ROBERT L. MADDOX,

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

DIRECT EXAMINATION

BY MR. VERITY:

Q State your name, Mr. Maddox.

A Robert L. Maddox.

Q Mr. Maddox, are you a partner in MSBW Company?

A I am.

Q Does that company operate the McCarty No. 1 Well in the southwest quarter of the southwest quarter of 28, 30 North, 12 West?

A It does.

Q Does it operate the Montano No. 1 in the southeast of the southwest of Section 28, 30 North, 12 West?

A It does.

Q And the Palmer No. 1 in the southwest of the southeast 28, 30 North, 12 West?

A 28?

Q Section 28?

A Yes.

Q And you -- other than these, are you operating any other wells in the Pictured Cliffs formation in San Juan County, --

A I operate --

Q -- which is on an acreage unit of less than 160?

A Well, one, the Hordge's No. 2.

Q Do you know the location of that?

A That's in the northwest quarter of the southwest quarter of Section 33, Township 30 North, Range 12 West.

Q Do you know when these wells were drilled, all of them that you have mentioned, including the Hordge's No. 2?

A Drilled in 1946.

Q And the others that I named?

A Yes.

Q When were they drilled?

A They were drilled in '47 and early in '48.

Q Were they drilled -- were they all drilled prior to June

22nd, 1948?

A I don't think the McCarty No. 1 was complete at that time.

Q Was it started prior to that?

A It was started, yes.

Q Now, do all of these wells have water in the formation?

A Yes, more or less.

Q Is it routine for the gas company to overproduce them and then shut them in? A Yes.

Q Do you have difficulty in starting these wells up after they have been shut in?

A Well, we have difficulty with a lot of water we've got to take out, and the recent deliverability tests on Hardeys No, 1 we were six days getting water out of the well.

Q After it had been shut in? A Yes.

MR. VERITY: That's all.

MR. BUELL: One question.

CROSS EXAMINATION

BY MR. BUELL:

Q Mr. Maddox, do you experience about the same lifting costs as testified by Mr. Stearns, about twenty-five dollars a month?

A Yes.

MR. BUELL: That's all.

QUESTIONS BY MR. COOLEY:

A Mr. Maddox, would that be your total expenses in regard

to those wells, twenty-five dollars?

A No. I've had maintenance costs in addition to that.

Q What would those amount to, averaged out per well?

A Well, I don't know. I have had to buy about three new siphoning lines, and about each time it cost me around a thousand dollars a well. And I think I've renewed the siphon lines in three wells.

Q Three of nine?

A Three of five wells.

Q Three of five? A Yes.

Q You refired siphon lines? A Yes.

Q Are there any other operating or maintenance expenses which you've encountered in operating these wells or would encounter were you to resume operation of those wells?

A Well, I'm operating those wells now.

Q You are operating all five of your wells?

A Yes. And when they are open on the line -- but from 1947, and Mr. Verity there has the figure, I think I had a gross of around six thousand dollars, wasn't it, for the five wells? So when you figure that you are not getting any more out of wells, you'd better put your money into something else besides the gas well.

Q But your income during, what period was --

A 1947.

Q That was prior to prorationing, wasn't it?

A 1957. My gross was seventy thousand, nine hundred dollars and eighty cents, my operation expenses were fourteen hundred and forty-one dollars and three cents; left a balance of six thousand, four hundred and sixty-four dollars and seventy-seven cents. The tax paid was five hundred and fifty-three dollars and forty cents. Let's see, I got an item of nine hundred forty-two, I haven't got it set down; left me a net of four thousand, nine hundred sixty-nine dollars for the year, approximately a thousand dollars per well.

Q You did not feel that this is sufficient income over and above operating expenses to warrant the operation of these wells?

A Well, we have about one hundred fifteen thousand dollars invested in those wells, and I could have taken that money and put it in a safe rate of interest.

Q Yes, sir, but the money is already spent on these wells, and my question is, what would be necessary -- what amount of allowable would be necessary to make the operation of those wells attractive enough that you don't plug and abandon them? What amount of income?

A I would say we would have to have a factor of one on all of them, and I don't think they should be shut in at any time because that endangers the well.

Q Do you experience the same difficulty when you shut in your wells that they load up? A Yes.

Q And then it is necessary to swab them or work them over?

A I do. Of course, if we are producing them all the time, we can set that in the meter and keep the wells drilled up.

Q Do you have any estimate of what allowable would be assigned to your wells if -- will Mr. Greer testify?

MR. VERITY: That's correct.

Q Can you tell me, Mr. Maddox, what return, net return per well you feel you should have to warrant the operation of your five wells?

A Well, I think at least, for the five wells I should have at least a gross of twelve thousand dollars a year. 2000.00 Mo.

Q A gross of twelve thousand a year?

A Yes. And I could eventually come out.

Q What do you mean, "Eventually come out?"

A Well, recover the cost that is invested in them.

Q Again, Mr. Maddox, I would like to limit the inquiry as to what income would be necessary over and above your operating expenses to warrant the operation of these wells you've already got your money invested in and you can't get it out?

A Well, I just don't know exactly what you mean.

Q Well, disregard your initial expense in drilling the wells, and tell me what net income over and above operating expenses; considering only your operating and maintenance expenses, not the initial cost of drilling the well and tell me what figures in dollars and cents you feel would be -- would warrant the con-

tinued operation of your wells?

A Well, I know this, I can't operate them, and the way I feel about it now, the operation in 1957, where we were only bringing one thousand dollars per well, why with any major overhall, I think I would abandon the well.

Q You would have to abandon the well?

A Yes.

Q Now, a thousand, in your opinion, is insufficient?

A Yes.

Q What figure would afford you sufficient pad there to continue to operate it, if one needs working over to do so?

A In order to recover my original investment?

Q **Please consider --**

A You haven't made any profit until you get it back.

Q I realize that, but please consider it as being total loss, as painful as it may be, and compare the necessary income with the necessary expenses and operation and maintenance of the wells, please.

A Well, I think it should have at least twenty-five hundred dollars per well per year.

Q Just take into contemplation the eventualities of necessary workovers and replacement of equipment today, operating expenses.

A I feel justified in spending a thousand dollars to maintain a well.

Q That's the question I wanted answered.

A Yes.

Q How much allowable per well per year would result in that gross of twenty-five hundred per well?

A Well, the gross is ten cents per thousand, so to get twenty-five hundred per year, why what does that figure out, twenty-five million?

Q Twenty-five million MCF? A Yes.

Q Per year? A Per year.

Q Twenty-five million cubic feet?

A Yes. All those wells wouldn't produce that, but there are two of them that would produce more than that. And on an average of the five wells, why, if I could come out with that average for all of them, I could eventually come out and maintain the well, be justified in maintaining the well.

MR. COOLEY: Thank you, sir.

QUESTIONS BY MR. UTZ:

Q Mr. Maddox, have the five wells in question that you are testifying to paid themselves out yet?

A Just about.

Q Do you know what the value of the equipment that you have in the ground or the salvage value of the equipment, if you would plug the wells, would be?

A I think that would be about absorbed with the cost, if not less than the cost.

Q Just about pay at abandonment?

A You'll be lucky if the salvage paid for the plugging of the well.

Q You actually consider that you don't have any investment in the wells at all?

A I've got it in there, but I can't get it out.

Q From the standpoint of what you have now?

A Yes.

Q So any profit you make above actual operating expenses is a profit, so to speak?

A Yes.

CROSS EXAMINATION (Cont'd)

BY MR. BUELL:

Q I want to be sure I understand Mr. Maddox. Did I understand you to say that your wells were practically paid out?

A They are right close to it. The last time I figured it out I was about to get into the black.

Q Then you have almost gotten your money out of your wells?

A Yes.

Q And in 1957 you made a net profit after taxes of five thousand dollars on these wells?

A Yes.

MR. BUELL: That's all.

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

(Witness excused)

ALBERT A. GREER,

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

DIRECT EXAMINATION

BY MR. VERITY:

Q Will you state your name, please?

A Albert A. Greer.

Q Mr. Greer, are you a graduate geologist?

A Graduate petroleum engineer.

Q Have you testified as a petroleum engineer before the Commission heretofore?

A Yes, I have.

Q Are you familiar with the A. A. Greer No. 1 Thompson Well located in the southeast quarter of the southwest quarter of Section 10, 30 North, 11 West?

A Yes, I am.

Q Do you know when that well was drilled?

A The well was completed in September of 1941.

Q Is it located on 40-acres?

A It is located on 40-acres.

Q Now, will you tell us, please, or you have there, I believe, the proration sheet, do you?

A Yes, I have.

Q What is the allowable -- what is the current allowable for the A. A. Greer Thompson No. 1?

A The allowable for the month of April was three hundred eighty-five thousand feet of gas. For the month.

Q In terms of dollars, what does that relate itself to for a month?

A That's about thirty-eight dollars a month gross, and after royalty and taxes would be about, oh, about twenty-five to thirty dollars.

Q What is it,for,the Brown No. 1, that is, the BMNS Brown No. 1?

A It is considered a marginal well, allowed to produce all it can produce, which is nothing, because it is dead.

Q Well, if it was reestablished to production and was brought back, then it would have an allowable, would it not?

A That is correct.

Q Probably it would be something comparable to the Greer Thompson No. 1?

A Well, I don't have that figure. I believe Mr. Stearns said what he thought the well would make.

Q Around two million feet open flow?

A I believe it was about two million. I don't recall.

Q Well, at a two million open flow, that would give it an allowable close to what this Thompson No. 1 is, wouldn't it, --

A Well, --

Q -- approximately? A Approximately.

Q What about the Brown No. 2, is it in the same category?

A The Brown No. 2 has an allowable for April of four hundred eighty-two thousand. The well, however, is dead and can't produce it, of course.

Q The Copp No. 1, I believe, has been shut in and abandoned?

A That's correct.

Q What about the Wyper No. 2?

A The Wyper No. 2 had an allowable of eleven hundred seventy-five MCF.

Q What about the Krouse -- George H. Krouse Beck No. 1?

A Allowable two hundred fifty-nine MCF.

Q The MSEW McCarty No. 1?

A Nine hundred twenty-eight MCF.

Q The Montano No. 1?

A Thirteen hundred ninety-six MCF.

Q The Palmer No. 1?

A One million, eight hundred eighty thousand.

Q And the Hordge's No. 2?

A I don't have that.

Q Is the situation with all of these wells such that if they are shut in, the well is liable to go dead?

A That possibility exists, yes.

Q And then is it also customary in this area for these marginal wells like this, to overproduce them for a period and then shut them in?

A That's true, because their allowable is so low that if

they are produced for as long as one month, it means that they are overproduced for several months.

Q And then when you -- they must be shut in for that several months' period?

A That's correct.

Q And then when they endeavor to reestablish them, you have a problem?

A Sometimes you have a problem because they are loaded up with water.

Q Do you know what it costs to operate one of these wells when they reach the marginal point that these wells have?

A I'd say that on an average, from our experience in the area, that the field operating cost would approximate thirty dollars a month. You have a little overhead costs, paper work and such as that. Possibly ten dollars a month. These figures were per well. That's what I would consider direct operating expenses.

Q That doesn't make any allowance for any workover to re-establish it?

A That's correct.

Q Does the cost of keeping one on production increase, the longer the well produces?

A That's true. What a man is faced with, if his well is logged off, is a workover job which can run all the way from five hundred to two thousand dollars; you might say an average of a thousand dollars, and at the time that the operator has to make

the decision as to whether he is going to plug that well or try to continue producing it, is whether he can go in and spend that, say thousand dollars and recover that thousand dollars in a reasonable length of time. Now, just what a reasonable length of time on a workover may vary from person to person. My own personal opinion is that if you have a well that is dead and needs to be worked over and is in this marginal status and it will not pay out its workover cost in say, twenty months, that you have then reached the point at which you need to abandon the well. Now, the cost that you need to consider there is your direct operating expense, which I would estimate about forty dollars a well a month, the interest on the value of the salvage, if there is any, which on some of the wells there is, I believe some of the wells you can salvage casing that will approximate two thousand dollars net recovery out of the salvage operation. At 6 percent interest, that two thousand dollars is one hundred twenty dollars a year, or another ten dollars a month. So we are looking at fifty dollars a month plus a return of the cost of the workover which we will say is,a thousand dollars over ten months is another fifty dollars a month. In other words, one of these operators has a well that is logged off, he's got to see something like a hundred dollars a month net after royalty and taxes before he can go in and work that well over, otherwise,the prudent and practical and economic thing for him to do is to plug the well and, of course, thereby lose gas that might otherwise be recovered; certainly gas recover-

able to him.

Q And that doesn't make any consideration, does it, for the fact that if it is going to be overproduced and has to be shut in for a period that he is liable to repeat the workover?

A That's right. Some of the wells have difficulty in loading up with water, and those particular wells, if you shut them in for six or eight months at a time, it is possible that each time that you go to open those wells up and produce them again, that you may have trouble.

MR. VERITY: I believe that's all.

MR. UTZ: The hearing will be recessed until one-fifteen.

(Recess)

MR. UTZ: The hearing will come to order, please. Are there any questions of the witness?

MR. VERITY: Your Honor, I have another question of this witness.

DIRECT EXAMINATION (CONT'D)

Q Mr. Greer, are you familiar in a general way with the MSBW Company wells up there--

A Yes, I am.

Q -- that we talked about here earlier?

A Yes.

Q Now, those wells have not as yet undergone stoppage of flow of gas as the BMMS Company No. 1, No. 2 and the Copp No. 1. Do you have an opinion as to whether or not they will reach that

point?

A Part of the MSBW wells are better wells than the BMNS Company wells. However, their capacity to produce is declining every year, and it is just, of course, a question of time until the MSBW wells will be in the same critical state that the BMNS Company wells now find themselves in.

Q In other words, then, the BMNS wells, three out of four of them are actually shut in and they have to have workover in order to bring them back up?

A That's correct.

Q And the others are facing the same situation if they don't have some kind of relief that will allow them to produce at such a rate that they wouldn't have to be shut in?

A That's correct.

MR. VERITY: That's all.

MR. UTZ: Are there questions of the witness?

MR. BUELL: I have some, Mr. Examiner.

CROSS EXAMINATION

BY MR. BUELL:

Q Mr. Greer, as a matter of fact, it is just a matter of time until every well in that field stops producing gas, isn't it?

A That's true. The thing that we are asking for is relief for wells that have the ability to produce at this time but are restricted because of proration. Once the wells reach the point that they can't produce, then that is a different question.

Q So your testimony with respect to the MSBW wells could apply to any well in this pool whether it is 140 or 160 acres, couldn't it?

A No. What we are talking about was the MSBW wells that in the course of, say a year or two, they will have the ability to produce, say a hundred and fifty dollars a well a month, but may be restricted because of proration to thirty-five or forty dollars a well a month. That is the substance of our complaint.

Q Mr. Greer, can you agree with me that the purpose of an allocation formula in a pool is to afford each operator an opportunity to produce a proportionate share of gas or other hydrocarbon?

A That is true. I certainly do.

Q With respect to the allocation formula in the Fulcher Kutz Pool and the allocation formula on your Thompson Well in Aztec --

A Yes.

Q -- do you feel that those allocation formulas serve the purpose they were designed for?

MR. VERITY: Just a minute, please. We object to that because we are not in this application attacking the validity of the allocation order. Our contention is that it does not make application to these particular wells, and therefore, we don't think that a proper question.

MR. BUELL: If I may be heard, Mr. Examiner, what they are asking for is an exception to the allocation formula. They

want to place themselves outside the allocation formula, and if the allocation formula serves the purpose for which it was designed and they ootain an exception to it which will result in a bonus to them, it certainly is going to give them more than their fair share of the gas in place. If this formula is serving the purpose for which it was designed, I think it a fair question.

MR. VERITY: We withdraw the objection, Your Honor.

MR. UTZ: You may proceed.

MR. COOLEY: Do you understand the question?

A Yes, I understand it. We spent many hours, weeks, months and period of years talking about that formula before. I know exactly what he is talking about and would be really pleased to give you my thought on it. I believe that that allocation formula as it applies to most of the wells in the pool is about as close as we can get for a practical allocation formula. I think we all know that it is impossible to exactly give to each well the amount of gas for it to ultimately produce that exists under its tract. We did the best we could with that allocation formula, and for the most part it fits pretty well, but when you get to the point as well as decline that a man has to plug his well and is, therefore, denied the right to recover, the gas that is then left under his tract at that point on your allocation formula ceases to perform the job it was designed to do, and as such, I believe that wells which qualify under that exception should be given an exception to the allocation formula and, in fact, withdraw from it.

Q (By mr. Buell) Mr. Greer, as a matter of fact, if every well whose allowable was reduced due to the allocation formula, such as this group of wells you have, were granted exceptions to the allocation formula, your allocation formula would be meaningless, wouldn't it?

A And it should be meaningless when the wells finally reach the point that they are just barely paying off operating cost. We reached the point where a man is not allowed to produce the gas that is under his tract because he has to plug the well. The well has a capacity to produce, but the Commission denies him the right to take that gas out from under his land.

Q Maybe we can get at it this way, Mr. Greer. Assume for the purpose of this question that this allocation formula in these two pools, a formula which you recommended many times, serves the purpose for which it was designed. If you are granted an exception to that allocation formula, some of the gas that you are going to produce as a result of that exception is going to come from a tract other than a tract upon which the well is located, isn't it?

A If it fits exactly.

Q With the assumption that I asked you to make?

A Yes, sir. But, of course, you made an assumption that is just not quite true.

Q Whether you agree -- if you agree with the assumption, Mr. Greer, I wouldn't have to make it. That is the reason we made the assumption. That would be the case under that assumption.

A Just a minute. Let me answer it. It doesn't quite apply, to this extent. The man has to plug his well and he can't produce the gas that is allocated to him, so it just doesn't operate.

MR. VERITY: Just a minute. Your Honor, we object to the question because he is assuming a state of facts that is not in evidence and which doesn't exist. Therefore, the hypothetical question is improper.

MR. BUELL: Mr. Examiner, that is the first time in all my experience that I have ever heard of objection to a hypothetical question to an expert witness, which Mr. Greer certainly is. I think. I am certainly willing to go on to something else, Mr. Examiner.

MR. UTZ: Do you want a ruling on that? The objection is overruled. If he states a hypothetical question, he can adjust his answer to the hypothetical case.

Q (By Mr. Buell) Which I have and I believe you have answered.

A I will give you the hypothetical answer, that, if a man --

Q No, mine was a hypothetical question.

A If a man could economically produce that gas that is assigned to him, then he is being done justice. As it is, he can't produce it, he has got to plug his well and, therefore, an injustice is done. The gas is left in the ground and the formula does not perform what it was intended to perform.

Q But if he continues to produce his well, complete equality would be done?

A Well, you said something that is impossible.

Q Mr. Greer, let me ask you whether or not in your opinion -- and I want to ask you to assume something else for the purpose of this question. Let's assume that all of these wells requested here today are plugged and abandoned tomorrow. In your opinion, will there be any significantly less ultimate recovery of gas from this pool?

A Yes, sir, there could be, especially in the area in which the BMNS and MSBW wells are located for this reason. They are on the end of a long narrow pool. If all these wells are plugged, then the only possibility of recovering that gas is, of course, from other wells on other tracts, which, of course, were not entitled to the gas in the first place. But if they could recover, of course, there would be a little additional gas recovered from these tracts, but very definitely not as much gas as can be recovered by these particular wells for the reason that we are reaching too long a range; we are talking about maybe two or three miles at which the gas would have to travel.

Q These wells are in a common pool with other wells, are they not?

A They are so located that they are pretty much at the end of the pool, and you are going to have abandoned not just a few wells with producing wells around them, but a whole end of a pool.

Q So let me get this clear now, Mr. Greer. Your testimony is to the effect that if these wells were abandoned tomorrow, there would be a significant decrease in the ultimate recovery of gas from this pool?

A That is correct.

Q You think it would be significant?

A It would be significant insofar as the future production of these wells is concerned, asfar as the future production of the wells could be if allowed to produce. You see, we all realize there on the tail end of production there is not an awful lot of gas left to get, but there is some, so we are not talking about a significant amount of gas in terms of the whole pool, but as far as gas which they could produce in income to the operator, it would be significant.

Q I think I see your point. Actually there is not a significant amount of gas there now, but of that amount a significant amount would be left, is that it, generally?

A In the first place, we are not talking about a large --

Q What wells specifically -- we have mentioned a lot of them -- what wells specifically are in your application and the subject matter of this hearing?

A Well, let's see. We have listed them. Do you want me to read them off?

Q Yes, sir, if you would, in the same order you gave them on your direct. I tried to follow, you went a little fast.

A We have the Greer No. 1 Thompson in the Aztec Pool.

Q All right, sir.

A In the Fulcher Kutz Pool, I have listed 1, 2, 3, 4, 5, 6, 7 wells. These wells are: for the BMWS Company and No. 2 Brown.

Q Right.

A And No. 2 Wyper, and for the MSBW Company wells, the No. 1 McCarty, No. 1 Montano, No. 1 Palmer, No. 2 Hordge's.

Q Was that in your application?

MR. VERITY: No, it was not in the application. It was discovered in evidence this morning.

MR. COOLEY: For what purpose was the testimony concerning this well?

MR. VERITY: Well, Paragraph 4 of the application is to the effect that the application should cover other wells similarly situated. These applicants and all individuals or corporations similarly situated are entitled to an order creating exceptions to that portion of Order R-565, which places upon them an acreage attribution factor of less than one.

MR. COOLEY: I believe that would be a statement of what the applicant feels should be, but I don't believe this application so requests it. And the terms of the notice, which I drew, based on the application, I did not interpret Paragraph 4 to request -- the prayer of the application to request relief from the nine wells mentioned; the investment reference was to one in the Pictured-Cliffs Pool and eight in the Fulcher Kutz.

A Another well I have listed is the Krouse Beck No. 1.

MR. BUELL: May I say this for Pan American, I was just trying to get that straight in my own mind, and if the Commission is willing, we certainly have no objection to considering the No. 2 Hordge's and obliterating the necessity for another hearing.

MR. COOLEY: I am sorry, we can't do that.

A Another well I have listed is the Krouse No. 1 Beck, and the last well that was on the application BMNS No. 1 Copp is being plugged and abandoned. Those are the wells.

Q (By Mr. Buell) That Copp Well is plugged and abandoned, is it not, Mr. Greer?

A That's correct.

Q So actually, it is rather meaningless in this hearing, is it not?

A There is no allocation asked for that well.

Q Are you still asking for an exception even if it was plugged and abandoned?

A It is a fine example of what can happen under the formula.

Q The Brown No. 1, I believe when you testified, you said it was marginal, which meant that it has produced all it could produce?

A I don't know exactly the status, other than the well has been dead, and I assumed that was the reason it hadn't produced for several months, and I assumed that was the reason why it has not

been prorated.

Q Then you don't know that actually it was a -- whether or not it was a marginal well when it was producing?

A Well, marginal well under the terms of the Commission's order, I don't know.

Q Well, if it was so classified, it can produce oil -- it can produce, can't it?

A If it was so classified.

Q So actually, you don't need an exception to that.

A I believe here we have the facts, we can quit guessing about it. For the month of January, 1958 it produced thirty-one days, produced two million six hundred and seven thousand cubic feet of gas. Now, if it were given an allowable with the current deliverability test, it would undoubtedly have an allowable similar to the No. 2 Brown or less, which means that it would be allowed to produce approximately a fourth or a fifth of what it has a capacity to produce.

Q Is it your testimony now, that based on data that you just examined that this well is not and was not a marginal classified well?

A Well, the current allocation schedule for the month of April, as I examined it, didn't show an allowable for this well. We can estimate what it would have been, and it would have been prorated to one-fourth of what it could have produced, and for all practical purposes, it is a well that we want an exception

granted to.

Q Mr. Greer, have you calculated the allowable which you would expect for these individual wells, assuming that the Commission grants your request?

A Yes, sir.

Q **Start with your No. 1 Thompson.**

A No. 1 Thompson was around thirty-one hundred thousand for the month of April, and if our application is granted, it would receive four times that, which would be approximately nine hundred seventy thousand cubic feet of gas for the month. The **BMNS --**

MR. UTZ: Recheck that slide rule again.

A Thank you. It would be around one thousand, five hundred and forty MCF.

Q What would be on a daily basis assuming it is a thirty-day month?

A Approximately its deliverability about fifty thousand feet a day, forty-seven thousand.

Q Fifty MCF per day?

A Right at fifty MCF a day, and its deliverability -- we might as well talk about it now -- is forty-seven thousand. It would be producing, it wouldn't quit producing its allowable, it would be a marginal well.

Q BMNS Company No. --

MR. COOLEY: Give us that deliverability figure again,

please.

A The one I read from the schedule is forty-seven thousand.

QUESTIONS BY MR. UTZ:

Q That's for the Thompson No. 1?

A Thompson No. 1, yes. BMNS Company No. 2 Brown, I show for April allowable, four hundred, eighty-two thousand; it would be allowed four times as much, or one million eight hundred twenty thousand.

Q One million, eight hundred and twenty thousand.--

A Yes, sir.

Q -- MCF per month?

A One million, eight hundred twenty thousand cubic feet.

Q What would that be on a daily basis, Mr. Greer, please, sir?

A Thirty-day month would be sixty-five thousand. The BMNS Company No. 2.

Q Excuse me just a moment. Did you give the deliverability on the Brown No. 1?

A I don't have it for the Brown No. 1. It wasn't in the schedule.

MR. UTZ: All right, go ahead.

A BMNS Company No. 2 Wyper shows deliverability of one hundred, forty-eight thousand, an allowable for the month of April of eleven seventy-five MCF; it would have twice as much gas allowed to it -- would be two million, three hundred fifty thousand cubic feet for the month, which on a thirty-day basis would be seventy-

eight thousand cubic feet a day.

Q You said twice as much. Is that on 80-acre tract?

A Yes, sir, 80-acre tract.

MR. COOLEY: What is the deliverability on that?

A I show one hundred, forty-eight thousand.

MR. COOLEY: Would it make itself allowable?

A Yes, sir. It would have seventy-eight thousand a day and has a deliverability of one hundred, forty-eight, so it would make it. Krouse No. 1 Beck was allowed two hundred, fifty-nine cubic -- two hundred, fifty-nine thousand. It would receive four times as much, which would be one million, forty thousand cubic feet for the month and on a thirty-day month would be thirty-five thousand cubic feet a day, and it has a deliverability of thirty-seven thousand.

Q All right, sir.

A MSBW Company -- you want all these?

Q Yes, sir, please, if it isn't too much trouble. I don't want to drag it out, but I want to make some comparisons.

A MSBW Company No. 1 McCarty was allowed nine hundred twenty-eight thousand. It would get just twice as much, which would be eighteen hundred, fifty-six thousand, which on a thirty-day basis would be sixty-two thousand cubic feet a day and has a capacity to produce one hundred five.

No. 1 Montano was allowed thirteen ninety-six MCF. It would be allowed two million two hundred thousand, which on a

thirty-day basis would be seventy-four MCF a day.

No. 1 Palmer --

MR. COOLEY: What's its deliverability?

A One hundred thirty-six.

Q What is this next well, Mr. Greer?

A Next one coming up is Palmer; was allowed eighteen hundred eighty MCF for the month, and that would be doubled to thirty-seven sixty MCF, which on a thirty-day basis would be a hundred and twenty-five thousand. It has capacity to produce two hundred sixty-seven thousand.

Q Mr. Greer, actually, as a matter of fact, aren't there some wells in the Fulcher Kutz Pool that have 160-acres assigned to them with comparable allowables and comparable problems to the allowables that your wells have?

A No, sir. If they have one hundred sixty acres assigned to them and allowable, for instance, of only three hundred eighty-five MCF, such as the Greer No. 1 Thompson, then its allowable would have been reduced because of its lower deliverability and it might not have the capacity to produce any more gas, whereas these wells have the ability to produce more gas.

Q Yes, sir.

A So there is a difference.

Q I realize there is a difference, but my question was that there are wells assigned one hundred sixty acres with comparable allowables and comparable problems from the standpoint of

water that you mentioned that you are experiencing at this time. Now, isn't that correct?

A The problems are not comparable in that they don't have the ability to produce that these wells have, so, therefore, they are not comparable.

Q All right, sir, we will exclude deliverability.

A Well, there's -- one of the biggest problems is the ability to produce.

Q Yes, sir, I realize that. But excluding deliverability, there are wells assigned one hundred sixty acres with comparable allowables and comparable problems from the standpoint of water that you've mentioned?

A Those wells, I believe, produce most of the time. They are not shut in because they are over produced. They don't have the same problems from the standpoint of water production.

Q They have a comparable allowable, though?

A But they are not shut in. They are cared for.

Q Yes, sir. Actually, you can look at the April proration schedule and ascertain the fact that they are one hundred sixty acre wells with allowables comparable?

A That's right.

Q Do you happen to know what the average, known average allowable is for the west Fulcher Kutz?

A I would estimate **two-twenty.**

Q Would seventy-eight MCF per day sound about right?

A I don't mean two twenty, I mean two million a month. That sounds about right.

Q Let me ask you this, while you are in your proration schedule there. Would the average deliverability for nonmarginal one hundred sixty-acre wells, would about one hundred fifty-four MCF sound about right?

MR. VERITY: What was the --

Q Average deliverability for a nonmarginal one hundred sixty-acre well.

A That sound about right. For Fulcher Kutz you are talking about?

Q So, actually, Mr. Greer, if your request is approved by the Commission -- for instance, your Brown No. 2, what is it, on forty acres?

A Yes, sir, forty acres.

Q The well on forty acres will be producing about seventy-two or seventy-three percent of the allowable assigned to a well on a hundres and sixty acres, wouldn't it?

A That is correct.

Q With respect to your Wyper No. 2, it is going to be producing about ninety-six percent, almost as much as a well on a hundred and sixty acres, isn't it?

A That's correct.

Q What about your Palmer No. 1?

A It would be produced from three million, seven hundred,

sixty thousand, one hundred twenty-five MCF a day.

Q It will be about one hundred seventy-three percent above the average of a well on one hundred sixty acre unit, wouldn't it?

A No, I believe seventy-three percent above.

Q Not one hundred seventy-three percent, you are right, seventy-three percent, producing seventy-three percent of the average allowable on a one hundred sixty-acre unit?

A That's correct.

Q Would you say that the allowable in this pool is extremely sensitive to deliverability of a well?

A Well, the allowable is the same as -- three-fourths of the allowable is based on deliverability.

Q All right, sir. You mentioned workovers a lot, that you intend to work some of these wells over. Actually, the primary objective of a workover would be to increase your deliverability, wouldn't it?

A No, sir, just to get the water out, to have it logged off. That is the main type of workover that we are speaking of.

Q You didn't contemplate workover to increase deliverability?

A No, sir. That would cost a lot more money than what I talked about.

Q Actually, on an average deliverability basis your wells compare pretty favorably at this time, don't they?

A For the most part, yes. They have the capacity to

produce the same as the other wells. They are just denied the right to produce.

Q Because they are assigned a smaller --

A Smaller. That's correct, too.

Q -- to make it complete?

A To make it complete, yes.

Q So, actually, these allowables that we've compared with the average -- the allowables as a result, if your request is approved, if, due to these workovers, even though it is not intentionally, the deliverability of some of those wells, is improved and , the allowable figure that you estimated here would increase, wouldn't it?

A That's correct.

MR. BUELL: That's all we have, Mr. Examiner.

MR. UTZ: Are there any other questions of the witness?

QUESTIONS BY MR. COOLEY:

Q Mr. Greer, the operating and lifting expenses on all of the eight wells, that is, excluding the Copp No. 1, which is plugged and abandoned, all the wells with the exception of Copp No. 1 are about the same?

A It varies a lot with each operator. Some operators get by for less than others. Some of the people take care of their own wells and don't itemize their cost and so they don't have the same records as other people that hire all their work done. But, in general, I would say that the cost would be about the same.

Q Here is a span here between the allowables that would be assigned to these wells, almost three to one, and the Krouse Beck No. 1, I believe under your calculations would be assigned a thousand and forty MCF?

A Approximately, yes, sir.

Q And the Palmer No. 1 would be assigned three thousand seven hundred and sixty?

A Yes, sir.

Q Still, the operating cost would be approximately the same on those two wells?

A That is correct.

Q In view of this, it must be that the assignment of an acreage factor one would result in assignment of allowables something in excess of what is necessary to warrant the operation of the well, would it not?

A Well, in some cases that's true. I don't believe we could assign or determine a formula which would exactly provide each well, the cost of its exact operation.

Q What, in your opinion, is the amount of money that would be necessary to be derived from each of these eight wells to warrant keeping them on production yearly, gross income?

A I believe I said earlier that an operator should have something like a hundred to a hundred and fifteen dollars a month after taxes and royalty at the time that he is faced with the workover to put the well on production, in order to justify the work-

over rather than plugging the well.

Q That is the precise thing I am trying to get at here. Now, we have one hundred fifteen dollars a month, plus taxes and royalty. How much does that amount to?

A Well, on an average lease, say with no override, it would take about a hundred and forty-five dollars a month gross to provide that income.

Q About one hundred forty-five dollars a month?

A Yes.

Q And multiply that by twelve and give me a yearly figure, please.

A Well, I guess seventeen hundred forty dollars.

Q Now, can you convert that hundred and forty-five dollars a month to MCF of gas?

A Yes, sir. Will be approximately a million and a half.

Q Approximately a million and a half?

A Yes, sir.

Q And you feel that you can operate these wells and not be compelled to shut them in with an allowable of something like a million and a half?

A That's true. Of course, as you know, the workover problems vary and it could be that a well would come up for workover with a more serious job, or it would cost more,or another one would cost a little less, but I think on the average that is a pretty reasonable figure.

Q But under your proposal, six out of the eight would receive considerably in excess of a million and a half, wouldn't they?

A Yes, they would. We explored the problem thoroughly and found it very difficult to arrive at some manner of allocating gas to these wells which would serve the purpose. It appeared to us that this is the best approach from an overall standpoint and that certainly any inequalities resulting would be no greater than those already existing under the established allocation formula as it applies to nonmarginal wells.

Q Now, that brings us to the next point. In answer to Mr. Buell's question concerning the ethicacy of the existing proration formula in Aztec-Pictured Cliffs and Fulcher Kutz Gas Pools, I believe it was your answer that the formula, in your opinion, breaks down as the wells decline, is that correct?

A It breaks down when it gets to the point that a certain amount of gas is allocated to a man to produce and yet he can't produce it because he is forced to plug his well and leave the gas in the ground. At that point it very definitely breaks down.

Q Isn't this breakdown to which you refer as a result of the low acreage dedication of these wells rather than the decline of the wells?

A That is correct. The wells have the ability to produce.

Q And it's not the proration formula's fault, if the wells had the acreage to dedicate to them?

A If they had the acreage dedicated to them, had they been drilled after the establishment of one hundred sixty acres, we would not have the problem as to this particular problem.

Q You agree, of course, that the formula was designed to provide the allocation of gas to wells spaced on one hundred sixty acre acres since that is the acreage set up in the pool rules?

A Yes, sir, we talked about it at the time,and there was considerable discussion at that time as to making exception to wells drilled prior to the spacing order, and the final outcome was that the Commission decided not to grant exceptions at that time. Now, we are faced with premature abandonment of these wells, and we feel we have just a little different picture than at the time that the proration formula was adopted.

Q Then, Mr. Greer, what you seek is a minimum allowable, is it not?

A Well, sir, we -- what we seek is to prevent premature abandonment of the wells, and under the present allocation formula they don't get enough gas. And if they were given an allocation factor of one, they would get enough gas and it appears to us that that would solve the problem.

MR. COOLEY: Thank you.

MR. UTZ: Are there any other questions of the witness?

MR. BUELL: I have one more, Mr. Examiner.

RECROSS EXAMINATION

BY MR. BUELL:

Q Mr. Greer, did you hear Mr. Maddox testify this morning?

A Yes, sir.

Q I believe he testified that the five MSBW Company wells netted, in 1957, five thousand dollars?

A I believe that's true.

Q Would you, as an engineer, recommend to -- or would you, as an oil man, abandon five wells that were making five thousand dollars a year?

A No, sir, and I don't believe Mr. Maddox intends to plug them right away, but he has a little foresight that he can see in another year or two that his wells are going to be in the same shape as Mr. Stearns' wells, and he is seeking what I think is proper relief before the problem descends on him and he has to shut down with nothing -- no gas to produce and a decision to make and possibility of a lease to lose and many very serious problems that he is going to be faced with.

Q Mr. Greer, as I recall your answer to my question was that you would not plug nor would you recommend plugging?

A Not at this time, but he is even right now faced with the problem if one of those wells goes dead as to whether he can afford to put it back on production.

Q Yes, sir. And you also said that the MSBW Company's problems were anticipatory. Wouldn't you think, then, that this request at this time is premature?

A No, sir. One of his wells could go dead tomorrow.

Q Shouldn't he wait a year or two until he has a problem and then come to the Commission with it?

A No, sir. If his well goes dead tomorrow and it doesn't produce for about sixty days and he waits on hearings for the Commission and the land owner cancels his lease, then he has waited too long.

Q I am sure you mentioned this in your direct, Mr. Greer, but let me ask you again, I missed it. Why don't you all produce these wells every day?

A Their allowable was so low that it is almost impossible or impractical for the pipeline company to take such a small amount of gas from the wells and produce them every day, so they take a reasonable amount of gas which is their year's allowable in a few weeks and then shut the wells in.

Q Mr. Greer, how do you reconcile that with your answer with respect to the wells on the 160 acres with comparable allowables that they didn't have your problems because they produced every day if they have a comparable allowable; if they can do it, you can do it, couldn't you?

A Sooner or later they are going to have to be plugged. Maybe not this month, but pretty soon they will have to be plugged because they simply cannot produce. They don't have any gas that they can produce and get out of the ground. We have gas that we can get out of the ground if the Commission will let us do it.

Q Maybe I can get at it this way, Mr. Greer. Is it physi-

cally possible to produce the wells that are the subject matter of this hearing at their allowable rate on a daily basis? Is it physically possible? I don't care what the pipeline does. Is it physically possible?

A It might be physically possible, but it is so impractical that I am sure neither one of the two pipeline companies in the area would attempt it.

Q But it is physically possible?

A It is -- I'd say it is not economically possible.

Q And if they were so produced, you would eliminate a lot of your concern and worries about workovers, would you not?

A No, sir. You would eliminate part of them, but you would not eliminate the fact that you wouldn't have enough money to perform the workover, if it occurred.

Q If the well is never shut in and doesn't load up with water, you don't need to work it over so long as it is producing every day, do you, Mr. Greer?

A If you can afford to have a man out there to blow out the water, which, of course, some of these wells you can't do that right now.

MR. BUELL: That's all, Mr. Examiner.

[illegible]: REDIRECT EXAMINATION

BY MR. VERITY:

Q Mr. Greer, the point is that on these wells there is producible gas that is going to have to be abandoned under the

the present situation -- A That is right.

Q -- on the wells; these wells have an acreage factor of less than 1?

A It is unrecoverable, definitely, to the person that owns the well and may be unrecoverable to the entire pool.

Q At least some of it is going to be left in the ground and never recovered?

A That is true.

Q And the man that's got the acreage factor of 1, by the time his well goes dead, it means that there is no gas that can be produced from the formation? A That is true.

Q So we actually have an entirely different situation with regard to applicability of the formula on this well, what you do with 160 acres?

A That's true. When 160 acres reaches the point that it is uneconomic to produce it, it just hasn't got the ability to produce the gas that is under ground, so there is no more recoverable gas.

Q And at the time these people drill these wells, they certainly had a right to assume that they were going to be allowed to produce at such a rate that they could get their gas out of the ground? A That is true.

MR. VERITY: I believe that's all.

One other question.

Q (By Mr. Verity) We've actually got two factors here,

haven't we? One from an economic standpoint you have prematurely abandoned -- A That's right.

Q -- but even over and above that, these wells that cannot produce up to the level required, so that you actually have an overproduction and a required shut-in period. Those wells just can't be produced at all on that basis, can they?

A They have more problems.

Q They are just -- when the situation is such that they are required to shut-in to make up overproduction because of the practical effect that the pipeline company wouldn't take a small allowable, as is accredited to them, then, when they are shut-in, then they are going to water-log, and they can't be revived, isn't that correct?

A They face the hazard of water-log; doesn't mean that every time they will water-log, but they face that hazard.

Q That is the problem, and it is over and beyond the mere economics of a minimum, as Mr. Cooley was referring to?

A That's true.

MR. VERITY: That's all.

QUESTIONS BY MR. UTZ:

Q Mr. Greer, did you recommend that a well in the Fulcher Kutz or Aztec Pool be assigned an allowable of more than the normal allowable because of the well's water-logging problems; the fact that if it was shut in for overproduction, that the well would not come back without possibly swabbing? In other words, do you

think that is the basis for a well producing more than a normal allowable?

A No, sir. It doesn't need to be granted the bonus because it water-logs, doesn't need the bonus.

Q In other words, because some of these wells that you have on your application water-log and will no doubt reduce their allowable and have to be shut-in and would still be water-logged, you don't think they should be allowed more allowable?

A I don't think they should be allowed. In fact, we are not asking for a bonus, we are just asking for what -- a chance to produce what is under our land.

Q There has been suggested here in this hearing that a well with water-log should not even be shut-in?

A That's true. You don't have to give it a bonus not to shut it in, just give it its ability to produce.

Q Mr. Greer, in answer to Mr. Cooley's question, was the one hundred forty-five dollars a month that you spoke of gross income, including royalty, taxes and everything?

A Yes, sir. With that amount of money, it would be a break-even proposition. I would consider four of these particular wells.

Q Do you think that amount of income would take into consideration and give the operator enough cushion, so to speak, that he could anticipate spending a little money if it is necessary?

A That allows a thousand dollars for workover every twenty months and leaving the operator absolutely no net income.

Q Then, it appears that your testimony that fifteen hundred MCF a month would take care of the objectives that you have on the seven wells, or eight wells, including the plugged and abandoned well?

A Well, if each well were allowed to produce that much, it certainly would be a relief to the majority of the wells.

Q Well, my question is, is it enough to prevent premature abandonment of these wells?

A I think it would.

Q Now, how many of these wells are capable of producing that amount of gas, fifteen hundred MCF?

A Excuse me. Could I elaborate on that last question? There is a possibility that you will get a well with a more serious workover job and it might take a little more.

Q Well, how much more?

A Well, that is going to vary with the well. On the average, I think this is reasonably close.

Q Well, let's put the thing on a sound economic basis. Two million a month?

A Well, what I am talking about is that any time -- this is not going to guarantee, but it certainly would go a long ways toward solving the problem.

Q You think two million a month would guarantee it?

A I think two million a months would be more practical to allocate.

Q Now, back to my original question, the last question. How many of these wells are capable of producing fifteen hundred MCF a month? Probably a shorter way to answer, how many of them are not? A All but one.

Q Which well is that?

A Krouse No. 1 Beck.

Q How about the Thompson No. 1?

A That will be awfully close, will be just nip and tuck. That deliverability is calculated against half the shooting pressure and operates against the line pressure a little less than half of its shut-in pressure. Chances are it will just about do it.

Q And the Brown No. 1 will be all right?

A Yes, it would be.

Q The Brown No. 2? A Yes, sir.

Q What was the deliverability on that well, do you know?

A My figures show a hundred and eleven thousand on the Brown No. 2.

Q And the Copp No. 1 is plugged and abandoned, is that right? A Yes, sir.

Q Would you recommend, Mr. Greer, assigning an allowable to these wells in excess of the amount they are capable of producing?

A Well, that happens, of course, all the time, even under the nonmarginal wells. And if they are assigned an allowable now,

they might make it for six months or a year and then drop off. I think that is really not too big a factor to be concerned with.

Q Well, you do not accomplish anything by assigning it any more allowable than it can produce?

A No, that's right.

Q Actually, it has an effect of taking allowable away from other wells that can produce it, does it not?

A Well, I don't know whether it is taking it away from other wells or giving it back where it originally belonged.

Q If the wells don't produce the allowable assigned, it loses it anyway, does it not?

A Oh, sure, that's right.

MR. UTZ: Any other questions of the witness?

MR. COOLEY: Yes, I would like to clarify one point.

QUESTIONS BY MR. COOLEY:

Q Mr. Maddox' testimony, I believe, was concerning five MSEW wells?

A Yes, sir. I think he had another well that is capable of producing more gas.

Q There are two other wells, evidently, which are not the subject of this hearing to which he referred and grouped together with the wells that are the subject of this hearing?

A That's right.

Q The two that are not here included considerably better wells than the three that are included in this application?

A I believe they are. Let me check. I believe they had 160-acre allowable and they had higher allowables, that is correct, so it brought his average production up.

Q Then the average figures that he gave --

A Apply --

Q -- certainly wouldn't apply to these three wells?

A Applied to his operation, not necessarily to the lower wells on the small acreage.

MR. COOLEY: In view of that, Mr. Examiner, I would like to recall Mr. Maddox to the stand as soon as Mr. Greer is dismissed.

MR. UTZ: All right. Are there any other questions of Mr. Greer? If not, the witness will be excused, and Mr. Maddox, would you care to come and resume your position at the stand, please, so we can ask you a couple more questions?

(Witness excused)

ROBERT L. MADDOX,

recalled as a witness, having previously been duly sworn on oath, testified as follows:

QUESTIONS BY MR. COOLEY:

Q Mr. Maddox, can you give us the average income per well on the three wells which are the subject of this hearing? The McCarty No. 1, the Montano No. 1 and the Palmer No. 1, excluding the other two wells to which you referred in your former testimony?

A Well, I can give you the 1957 figures. The Montano No. 1 produced one thousand, seven hundred fifty-two dollars and ninety cents for the year.

Q One thousand what?

A Seven hundred and fifty-two dollars and ninety cents. That was the gross. The Palmer No. 1 produced one thousand, seven hundred and seventy dollars and seven cents. The McCarty No. 1 produced one thousand, ninety-one dollars and seventy cents.

Q Now, do you have all the expenses you incurred on these three wells during the year 1957 itemized too?

A No, I have it all grouped on the five wells.

Q Would the expenses be approximately the same --

A Yes, be about the same.

Q -- per each well?

A The expenses -- operating expenses on the five wells is one thousand, four hundred and forty-one dollars and three cents.

Q I guess -- that was just your operating expenses? Does that include royalty and taxes?

A That is operating expenses. The tax is five hundred, fifty-three dollars and forty cents.

Q Royalty?

A Nine hundred, forty-two dollars and thirty-seven cents.

Q Approximately three thousand dollars total deductions from your net --

A Yes.

Q -- to arrive at your net?

A Yes. Approximately three thousand. Approximately eighteen hundred dollars on the three wells.

Q Approximately eighteen hundred dollars would be deducted from the gross income on the three wells to arrive at your net?

A Yes.

Q And what would that leave you, sir?

A About -- approximately two thousand, eight hundred thirteen dollars.

Q That would give you a net income per well of approximately nine hundred dollars each for the year 1957?

A Yes, that's about it.

MR. COOLEY: That's all the questions I have.

MR. UTZ: Any other questions of Mr. Maddox?

REDIRECT EXAMINATION (Continued)

BY MR. VERITY:

Q Mr. Maddox, you supervise these wells yourself, don't you?

A I have a man hired to wind the meters.

Q But you supervise him, don't you?

A Yes.

Q And you haven't included in these expenses anything for supervision, have you?

A No. This is the actual money that was paid out. I didn't receive anything for supervision.

QUESTIONS BY MR. COOLEY:

Q What do you feel a reasonable charge for your supervision would be?

A I go down there at least once a week, so I am there four or five times a month to the wells. If I have any trouble, I go down and work on the well. Without any trouble, I am there from four to five times a month. You can figure at least five days a month.

Q If you had to employ someone to do this for you, what would it cost?

A I think it would cost me at least seventy-five to one hundred dollars a month.

Q For all three wells?

A For all five wells. I'd say at least twenty dollars on each well.

Q Twenty dollars a well?

A Yes. Sixty dollars for three wells.

Q Sixty dollars for three wells would be seven hundred twenty dollars a year.

A I believe that's very reasonable when you run your car down there and figure your car expenses, which is about twenty miles. Well, it is really more than that. It is seven miles from Aztec. I live at Aztec, so you might say it is a fifteen-mile trip down the east side of the river and fifteen miles down the west side.

Q Mr. Maddox, if you say it is reasonable, I am willing to accept it.

A I am just trying to arrive at what a reasonable charge for supervision would be on these wells, and seven hundred twenty

dollars seems reasonable to me. However, I have no experience with that. Well, I know that isn't too high. Probably have to pay for it if I hired a man.

Q That would reduce your per well income down to around seven hundred each per year? A Yes.

MR. COOLEY: Thank you. That's all the questions I have.

MR. UTZ: Any other questions of Mr. Maddox? If not, the witness may be excused.

A I might add this. The reason this Hordge's No. 1 and Hordge's No. 2 is not included in this petition, the Hordge's was allocated on 160-acres. The Hordge's No. 2 is off proration because it produced, I guess it was less than a million a month; isn't that the rule? And it has been off of proration for about a year. It is on 140-acres.

MR. UTZ: That's a marginal well, then?

A Yes, marginal well.

MR. UTZ: Do you have anything further?

MR. VERITY: I have no further testimony, Your Honor.

MR. UTZ: Any other statements to be made in this case?

MR. BUELL: I have a statement, Mr. Examiner.

MR. COOLEY: Is there any more testimony in this case?

MR. BUELL: Pan American Petroleum Company is in a rather unique position in this hearing in that our position is friendly opposition, if there is such a thing. We realize in some of these older wells that were drilled prior to the statutes

and prior to the rules on small tracts, it certainly is possible that hardships may result. We're friendly to that standpoint in that we understand the general problem. Our opposition is entirely to the method of seeking relief. If the application here today is approved by the Commission and a precedent is set, actually, it means complete abrogation of allocation formula because in any case where a well has an allowable reduced due to the allocation formula, simply obtain an exception, your allocation formula becomes meaningless. The testimony of Mr. Greer showed that in one case one of the wells in question, if the Commission approves it, would produce 73 percent more gas than the average 160-acre gas well. I don't believe that could be classified as equity by any one of the statutes of New Mexico. Article 65-3-14 contemplated such a situation as we have here, and in Section D thereof, it reads this way: "Minimum allowable for some wells may be advisable from time to time, especially with respect to wells already drilled when this act takes effect; to the end that the production will repay reasonable lifting cost and thus prevent premature abandonment and resulting waste."

Actually, it seems that the statute contemplated the very situation that we are faced with here, and it would seem to us that the more equitable way to approach the problem would be on an individual well basis under the statutory provisions. Certainly that -- even that method, to some extent, if granted, is going to distort and amend the allocation formula, but it

wouldn't result in a complete abrogation of it as this request here today will. The extra gas that is going to be assigned under either method is going to come from some place. It is going to be taken away from the wells to which it is currently assigned under the allocation formula and given to these other wells as exceptions. Certainly the record is crystal clear with respect to the three MSW Company wells. They have no problem there. It is down the road. Their own witness frankly and honestly admitted that, so certainly no consideration at all should be given these three wells. With respect to the others, it is Pan American's recommendation that this request be denied in its entirety.

MR. WADE: Your Honor, I would like to make some response to that. On every point, as a matter of fact. To start with, the applicants in this case have found themselves with a lot of friends, all of which want to see them not get a relief to a situation that they all admit should be relieved. You will probably recall that the Commission on its own motion set this inequity down for hearing and suggested that it be handled on a matter of minimum allowables, and then a whole host of friends came in and said, "We feel terribly sorry for you. We realize that your situation and plead is great, but we can't see the word minimum allowable used because it is going to cause us trouble all over the state of New Mexico." And so in order to try to get along with as many people as possible, we dismissed that application, or rather we requested that the Commission dismiss it, and

we filed this one. And we would like to point out, Your Honor, in response to statements made by counsel that quite the contrary to what he says, that this is going to reabregate the proration formula. It is not going to do that at all. We are talking about that small and very limited class of wells that were drilled prior to June 22, 1948 when the 160-acre unit size was promulgated in Order No. 748. Now, we think we are entitled to this order on two different things. We first think we are entitled to it because -- due to the fact that at the time we drilled these wells there was not one suggestion that there was anything wrong with drilling them on 40-acres, and we had a perfect right to assume that when we drilled these wells on 40-acre tracts that the Commission or others would come along later and say, "We are going to penalize you because you have fallen below what we believe is the proper unit and, therefore, we are not going to give you what should be an average factor of production, but we are going to let you fall below that." There is nothing on record at the time these wells were drilled. We think that that is improper, and that they have the right to produce a reasonable amount of the gas that is in place and is underneath it, and we think that it is not going to be unfair to the others to allow these wells to produce a sufficient amount so that they can do what they had the right to assume could be done at the time that they staked and drilled the wells.

In addition to that, we believe that purely from a stand-

point of premature abandonment, which counsel would like to suggest we are entitled to it on. We think we are entitled to it on that, but we don't think we have to put a tag on it that says "minimum allowable" because we know that there are other people just like him that are very friendly to him and realize we have a problem. And it is not fair to make us go away and leave all the gas in the ground. But they just don't want to see it done in this fashion, so we say we are entitled to the relief that everybody seems to grant and agree that we should get on some means. We say that we are entitled to it and that the proper and the best way to allow it is to give us an allocation factor of 1 which we think we are entitled to because we drilled our well in a proper unit in the first place and, therefore, Your Honor, we think we are entitled to this order. One more thing in response to that. He is disturbed about the fact that one of these wells is going to make more than the normal allowable. Let me point out to the Commission that ~~that is~~ the reason that well has got a little more allowable, if you give it an acreage factor of 1, is because it has a very high deliverability factor and there are some wells in this pool that are making ten times what the average is, and counsel was restrained about the fact that this one would make a little bit more than the average. It's got its deliverability under this 40-acres, but it cannot recover the gas that is under its 40-acres unless it is given an acreage attribution factor of 1. We say there is a grave injustice that has been committed against these wells, and at this late date

these applicants are asking that they be given some relief from that injustice, and they say that the best way for this Commission to do that is by granting them the acreage attribution factor of 1.

MR. BUELL: Mr. Examiner, I firmly realize that you wouldn't want to get into a statement -- answering a statement situation, but I would ask leave to clear up one or two things. Mr. Verity inferred that we admitted that relief was indicated in these wells. Frankly, based on the data I have seen here today, I don't believe I could sincerely admit that nor do we admit that. I will frankly admit that we are opposed, as a matter of fact, of principal, to a minimum allowable on a state-wide basis, but I would again point out that the statute contemplates an individual well basis so that all of the problems, all of the facts to a peculiar individual well can be considered and equity done. I'll admit that we were one of the friends that he mentioned that were opposed to a state-wide minimum allowable, and just like I stated at the outset, if there was such a thing as friendly opposition, that is what ours was. Apparently, there isn't such a thing.

MR. VERITY: Your Honor, I take no exceptions to his last statement.

MR. UTZ: Mr. Woodruff.

MR. WOODRUFF: Mr. Woodruff with El Paso Natural Gas Company. The problem we are facing here today, apparently, is handling the pioneers of development in the San Juan Basin area. The condition is not uncommon with what is found in the development

of a petroleum reservoir, or initial development, and later found to be on a smaller acreage basis than is found that the field can be economically and adequately developed on. In such instances, it is not uncommon to give consideration to such a well, and that is often done and normally done in my experience by the assignment of additional acreage factor to a well. I can give one instance which, while it is an oil reservoir, that has been true in Texas where we started off with a 40-acre allocation and later ended up with 160. And in that particular pool the 40-acre wells were given the same allowables as 80-acre wells. We believe that the approach of the applicant in this case for increased acreage allocation is the appropriate approach. The assignment of a minimum allowable on a poolwide basis would do more to disrupt the allocation of gas in accordance with existing rules than their proposal which would prevail for these specific wells having small acreage allocation, having been drilled prior to the institution of 160-acre spacing.

We would urge the Commission to give serious consideration to increasing the unit for any well to prevent the premature abandonment of that well where such unit is for a well drilled prior to the institution of 160-acre in the pools in question.

MR. COOLEY: Let me direct one question to Mr. Woodruff. You're taking two of the three alternates; assigning an acreage factor of 1; second, the assignment or the establishment of a poolwide minimum allowable. What is the position of your company with

regard to well by well minimum allowable as Mr. Buell interprets the statute?

MR. WOODRUFF: I believe the Commission has the authority to commission well by well relief where the facts justify it, and I would see no objection in an approach on a well by well basis.

MR. UTZ: Any other statements?

MR. COOLEY: Off the record.

(Discussion off the record)

MR. VERITY: Comes now the applicant and moves to delete the BMNS Company's Copp No. 1 Well in the southwest of the northwest of Section 29, 30 North, Range 12 West for the reason that the same has been plugged and abandoned subsequent to the filing of this application. Applicant also moves to amend its application with regard to MSBW Palmer No. 1 Well to show that the same is located in Section 28, 30 North, 12 West rather than 38.

MR. UTZ: Is there objection to the amendment as stated? If not, it will be so amended. Any other statements in this case?

MR. COOLEY: Mr. Examiner, I would like to read into the record a telegram this Commission has received from Aztec Oil & Gas Company and I quote: "RE CASE 1461. AZTEC OIL & GAS COMPANY CONCURS IN APPLICATION OF A. A. GREER ET AL FOR AN EXCEPTION TO THE ACREAGE FACTORS ESTABLISHED BY ORDER R-565-C FOR CERTAIN WELLS IN SAN JUAN COUNTY, NEW MEXICO. AZTEC OFFSETS MOST OF THE WELLS INVOLVED IN THE APPLICATION -- IN THE APPLICANT'S APPLICATION AND HAS SEVEN PICTURED CLIFFS WELLS DRILLED ON A 40-ACRE BASIS PRIOR TO

ORDER 748 THAT HAVE AN ACREAGE FACTOR OF LESS THAN ONE. SIX OF THESE AZTEC WELLS HAVE BEEN SHUT IN FOR EXTENDED PERIODS OF TIME DUE TO OVERPRODUCTION, AND SOME RELIEF SHOULD BE GRANTED TO PREVENT PREMATURE ABANDONMENT.

AZTEC OIL & GAS CO QUILMAN B. DAVIS.

MR. UTZ: Any other statements? If not, the case will be taken under advisement.

C E R T I F I C A T E

STATE OF NEW MEXICO)
: ss
COUNTY OF BERNALILLO)

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

WITNESS my Hand and Seal, this, the 16th day of January, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph G. Trujillo
Notary Public

My Commission Expires:
October 5, 1960.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1461, heard by me on January 28, 1958.

[illegible], Examiner
New Mexico Oil Conservation Commission