BEFORE THE
OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
November 8, 1962

EXAMINER HEARING

IN THE MATTER OF:

The hearing called on the motion of the Oil Conservation Commission to consider revising Commission Orders R-333-C & D and R-333-E as the same relate to the season for taking Northwest New Mexico gas well deliverability tests and to the procedure for taking and calculating such tests, San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico.

Case 2695

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: We will call next Case 2695.

MR. DURRETT: In the matter of the hearing called on the motion of the Oil Conservation Commission to consider revising Commission Orders R-333-C & D and R-333-E as the same relate to the season for taking Northwest New Mexico gas well deliverability tests and to the procedure for taking and calculating such tests, San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico.

May it please the Commission, my name is James Durrett, appearing on behalf of the Commission and its staff. I have one

witness, Mr. Utz, who I will swear in at this time.

(Witness sworn.)

ELVIS A. UTZ

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

DIRECT EXAMINATION

BY MR. DURRETT:

Q Will you please state your name and position for the record?

A Elvis A. Utz, Engineer for the New Mexico Oil Conservation Commission.

Q Mr. Utz, have you prepared proposed gas well testing rules and procedures for the San Juan Basin area in the State of New Mexico?

A Yes, I have.

Q Does this area cover the counties as advertised on the docket of this case, that would be San Juan, Rio Arriba, McKinley and Sandoval Counties?

A Yes, it does.

Q Have you prepared your proposed rules in the form of an exhibit for the purpose of this case?

A Yes, I have, and they have so been marked.

Q Mr. Utz, will your proposed rules supersede certain

existing orders previously issued by the Commission and now in effect in the San Juan Basin area?

A Yes, they will. If adopted they will supersede R-333-C and D, R-333-E, and a memorandum known as Memorandum 1-56, which has to do with initial potential tests.

Q Mr. Utz, I would like to proceed with you through these rules. I would like to ask you as we go through them to explain the major changes or revisions that these rules will cover.

First, let me ask you this, do your proposed rules clarify the penalty to be imposed for delinquent test?

A Yes, they do. They do that with wording to this effect: "Failure to file the required test within the time prescribed above will subject the delinquent well to the loss of one day's allowable for each day the test is late."

MR. NUTTER: Where is that provision?

A That's on page one, subsection I, paragraph (B). In other words, it's about the third paragraph up on page 1. Heretofore on tests that were late, at the end of the testing season they have been penalized the month of February and each month thereafter that they were late. In this manner, by penalizing a well one day's allowable for each day the test is late, they will all be penalized for the amount of time that the test is actually late rather than being penalized

one month's allowable if he only happens to be late three or four days.

Q Do your proposed rules clarify the responsibility for scheduling tests?

A Yes, they do. On page 2, about the middle of the page, we have the same wording as previously read as to the loss of one day's allowable. I'm sorry, that is another rule which describes the penalty rather than the question asked. I would like to comment on that paragraph, however, that the last sentence in that paragraph relates that "No extension of time will be allowed after January 10, except after notice and hearing."

To answer the question that you asked, at the top of page 3, the second paragraph, that paragraph has been added to the previous rule and states that "It shall be the responsibility of each operator to determine that its wells are properly scheduled by the transportation facility to which its wells are connected, in order that said wells can be tested within the testing season." I think that clarifies the vagueness that I feel sure, and I feel that a lot of other people thought was in the previous order.

Q Do your proposed rules revise the existing extensions of time for taking tests?

A Yes, sir. In relation to the period of time after a well is connected to the pipeline system, as well as the period

of time that a well is reconnected to the pipeline system after workover. At the bottom of page 3 you'll note the words "Within sixty days after a newly completed --" and so forth. The previous rule stated forty-five days plus an extension time of fifteen days, which had to be applied for and given administratively. In my opinion that was somewhat of an administrative burden to apply for the additional fifteen days. If we are going to grant them sixty days, I say let's just grant them sixty days and say so.

Q Have you found it necessary to restrict the flow of wells into the pipeline under these rules?

A Yes. Since we have quite a number of Dakota wells connected now, we have determined, well, first, let me say the previous rules stated that a well must be produced unrestrietedly into the pipeline. Due to the higher pressure of the Dakota formation it was found that the, not only the separation equipment and production equipment, heaters, treaters and separators as well as the meters which were installed to handle the average range of production was not capable of handling the volume of gas that these wells will produce unrestrictedly. Therefore, they had to be squeezed somewhere between the well head and production meter. That wording has been taken care of in the second paragraph of page 4.

Q Now, referring to restricting the flow between the well-head and the meter, do your rules define critical flow and outline procedure to calculate tests when critical flow exists?

A Yes. And due to the choking, yes, they do. Our district office discovered that in some cases we actually had critical flow in this area. Critical flow, generally pressure is twice the downstream pressure. Therefore, the measurement that we had to take between the well head and the meter in order to correct for friction loss was no longer applicable under critical flow conditions, and we had to devise a method in order to eliminate that.

Q Do your rules provide methods for taking shut-in pressure on wells which cannot have both casing and tubing measured and shut-in pressures which appear to be low due to liquids in the bore?

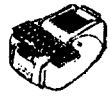
A Yes. On page 6, down about the fourth paragraph, the latter part of that paragraph we have entered this wording, some of which I will recommend a deletion, the second word, beginning with "the high of such pressures", that should be "the higher of such pressures shall be used as P_c in the deliverability calculation. When any such shut-in pressure has been determined by the Commission to be abnormally low, the shut-in pressure to be used shall be determined by one of the following methods:", then we

list three methods.

These three methods are as follows: "A Commission designated value." Well, first, I had better elaborate slightly on the portion that I would like deleted from this paragraph. After the words "abnormally low" I would suggest that we delete "or when only one pressure is available". In some instances it is not possible to get the second pressure or annular pressure normally on conventional wells, and even on dual completions where you can take but one pressure, if that pressure appears to be a normal shut-in pressure I doubt the feasibility of compelling the operator to prove that it is actually an accurate pressure by some other means.

The first method would be "A Commission designated value." This would be, it would have to be done only in instances where the shut-in pressure appeared to be abnormally low. The Commission may designate a value from its records. In other words, it is our intention to contour the previous year's pressures for each pool, which would give you a very good indication by location as to whether or not the pressure was abnormally low.

The second would be an average shut-in pressure of all offset wells completed in the same zone. Where this is possible the average shut-in pressure from all offset wells would be applicable pressure or acceptable pressure. The third method



would be the calculation of surface pressure based on a measured bottom hole pressure, and this calculation should be made in accordance with the Example No. 7 in the Commission Back Pressure Manual, which simply means that you would run a bomb and determine the bottom hole pressure and calculate back to the surface on a gas gradient.

Q Do your rules provide whether casing pressure or tubing pressure shall be used in the deliverability calculation?

A The rules would provide that the higher of the tubing or casing pressures be used in the deliverability calculation. Perhaps it would be well to give just a little background on why that rule change is necessary at this time. Prior to 1956, that was exactly the way that we required these wells to be tested. It was that we use the higher pressure. It is fairly common knowledge in my opinion that the higher pressure on a well is always the most accurate pressure. There can be a number of things cause the pressure to be low, but there's not very many things that can cause a pressure to be high and inaccurately high.

Due to the advent of long open hole completions and terrific shots of nitroglycerine that were used in order to make these wells more productive in which tubing was run, and to our consternation, and I'm quite sure to a number of operators'

consternation we found we had a very effective bridging around the tubing. Quite often the annular pressure was original pressures. In other words, that part of the formation had not yet had time to be drained and they were much higher than the producing zone pressures. Therefore, we changed our rule sometime during 1956 to state that only the pressure through the string through which the well flowed could be used, thereby allowing the operator to make use of the shut-in pressure which was applicable to the area in which the well was producing.

Since that time and since sand fracking has been in use for a number of years and shots are no longer used in the area, and since such a large number of these cased in wells have been, if not all, have been remedied where we have communication in most cases between the tubing and annulus, we now feel also because of liquid problems which we are now encountering, we again feel that the most equitable way and the most accurate way to calculate deliverabilities is by using the higher pressure.

Q Under your rules, will a pool deliverability pressure be used in lieu of 50% of individual well seven-day shut-in pressure?

A Yes. Due to liquid problems and in particular some pools in which the shut-in pressures are now approaching closely to the pipeline pressures, we have found that 50% gives us such a

high multiplier that in some cases we feel quite sure that this multiplier gives us an extremely exaggerated deliverability. Therefore, in order to relieve the need of having to have so much drawdown and/or using these high multipliers, we believe that on a pool basis that we should determine a deliverability pressure which would be applicable to all wells in that pool, and this would be based on previous years' shut-in pressure and static well head working pressure averages. This will cause the deliverability pressure to be closer to conditions under which the well is produced. In other words, the correction from actual test conditions to deliverability conditions will be much less and have a much less chance of error.

Q What method will be used to determine pool deliverability pressure?

A The rules state, the proposed rules state that "Such percentage shall be determined periodically by the Commission based on the relationship of the average static wellhead working pressures (P_W) divided by the average (P_C) seven-day shut-in pressure of the pool."

Q Do your rules propose that a limiting multiplier be used concerning wells which report a very low shut-in pressure or that cannot achieve a 25% drawdown?

A Yes, they do. Even though we propose a deliverability

pressure determined as stated, we know that in some instances where we have liquid problems and known liquid problems, that we will have shut-in pressure, surface shut-in pressures that are abnormally low. These surface shut-in pressures we know are not accurate.

The deliverability formula itself presumes that the P_c in the formula be an accurate indication of the reservoir pressure, static reservoir pressure. Therefore, to take care of these instances where we have abnormally low shut-in pressures, and in order to control those exaggerated deliverabilities, we believe that the multiplier, which is the value inside the brackets of the deliverability formula, after it's been raised to the power, should be limited to some value to be determined by the Commission.

To go a little farther with that, while the rule does not specifically state how that should be done, I believe that I will recommend that multiplier be, the maximum multiplier be determined in this manner, by the use of the lowest seven-day shut-in pressure in the pool which is determined to be accurate. In other words, no other reservoir conditions affecting that pressure. And the pool average working pressure be put in the deliverability formula to determine what the multiplier is under those conditions, and that no multiplier should be used higher

than that.

Q Do your proposed rules provide for a revision of the test period of flow rate previously allowed?

A Yes, they do. This has been brought on to some extent by the fact that our previous rules allowed that the seven-day flow rate not be any higher than 25% above any seven-day period for the previous-fourteen-day conditioning period. Some operators, my understanding, actually took advantage of this to try to rest their wells a little bit during the conditioning period. However, the major reason for this change is that due to the higher pressure, Dakota wells again, and the ease of which it is to twist a valve an eighth of a turn and get your 25%. So we have lowered that to 10% rather than 25%.

Q Is the Initial Potential Memo which was issued by the Commission, that's Memo No. 1-56, incorporated into your proposed order?

A Yes, it is. And that memo was brought about also, well, it was Memo 1-56, so it had to be the first memo of 1956, it was brought about by the advent of sand fracking. Previous to this our approved method of taking absolute open flows in the San Juan Basin was using a three-hour open flow through the tubing and taking a Peto test at the end of three hours. Of course, this aggravated the waste of gas and vented to the air

much more gas than this rule stipulates.

Also due to the high velocity of gas flowing unrestrictedly through two inch tubing, it cut out a lot of wellheads, and actually the wellhead cut out, the operator finds himself in pretty serious condition to stop the flow of gas.

So this memorandum was promulgated and suggested as the official means of taking absolute open flow tests for any well which was completed, and before it was connected to a pipeline system. These are only for information purposes and are not required, but are required to be reported and taken in this manner when they are taken.

This test, briefly, requires that the well be flowed through a 3/4" positive choke for a period of three hours, the pressure at the end of three hours taken and corrected through absolute.

Q Do your rules exempt the Barker Dome-Dakota Pool and the Pennsylvanian formation from testing requirements?

A Yes, they do. At the time the previous order was written it was conceived that it might be necessary to prorate the Barker Dome-Dakota-Pennsylvanian, or Barker Dome-Pennsylvanian Gas Pool, and the Barker Dome-Dakota storage area. At least we felt we needed some productivity information on the Barker Dome storage area, but due to the fact that Barker Dome is on its last legs now, and we have now determined that we have no

particular use for availability information from the Barker Dome storage area, I recommend that those testing requirements be removed from the rule.

Q Mr. Utz, do you have any typographical changes or corrections that you would like to make at this time on your Exhibit No. 1?

A Yes. I'll start over at the first again. It would be the fourth paragraph down on page 2. Where we use the word "may subject the delinquent wells to the loss of one day's allowable for each day the test is late", the word may to me implies that any individual or agent of the Commission may at his own discretion subjugate a well to this penalty. I think if we are going to have a penalty it ought to be for everybody. I suggest that we use the word "will".

Q What other changes would you like to make at this time?

A Over on page 4, the second full paragraph down where we use the words "and/or", in other words, we're referring to overrange meter charts, and our location production equipment, the wording "and/or" from a legal standpoint has been attacked, and I think properly so, on numerous occasions, and I suggest that we strike the word "and" and say "or". The word "or" to me means either or both.

MR. NUTTER: How about the little mark, do you want to

strike it too?

A Well, I think it would come out too, also. The same correction on the top of page 5 down about five lines where we use the word "and/or".

MR. NUTTER: What comes out there, the "and"?

A Same words, "and/". I believe I've already covered the one on page 6 where I suggested we delete "or when only one pressure is available." At the top of page 10 I would suggest we change the first paragraph to read as follows: "All charts relative to initial or annual deliverability tests, or photostats thereof, shall be made available to the Commission upon its request." These charts are all dated and I see no particular reason why we have to number the charts 1, 2, 3, 4. We know what dates the test was run and we can tag the charts by dates.

MR. NUTTER: What's your recommendation there then?

A I just read it.

REPORTER: (Reading) "All charts relative to initial or annual deliverability tests, or photostats thereof, shall be made available to the Commission upon its request."

A Now, under subsection II, the heading of paragraph (A) where we say "Initial and/or annual deliverability test", we make the usual deletion of "and/". In the paragraph following that, in the last line of that paragraph beginning with the

words "the Pictured Cliffs, comma, and Farmington formations shall be point eight five." In other words, we've added the Farmington formation. By inference, with the heading "All Formations Other Than Mesaverde", that means that all other formations except the three mentioned here will have the slope of point seven five.

Now, under information tests for all formations, paragraph (A) under I, I would suggest that we add a sentence at the end of this paragraph to this effect: "This rule does not preclude the taking of information tests in addition to this test." Somehow or other someone interpreted this to mean that this was the only type of information test that could be taken, and that was not true. I believe that covers all my typographical errors.

Q (By Mr. Durrett) Mr. Utz, in your opinion will the adoption of these proposed gas well testing rules and procedures for the San Juan Basin area be in the interest of conservation of natural resources, protection of correlative rights, and prevention of waste?

A Yes, I believe they will. I also believe they will give us more accurate deliverability test.

Q Now, for the purpose of clarification, on your sentence you just added on page 10 to the effect that additional tests could be taken, would that be at the option of the operator?

A Certainly.

Q Not to be required?

A No. As a matter of fact, this test mentioned here is not required.

MR. DURRETT: If the Examiner please, I would like to move the introduction of Exhibit No. 1, and that concludes our direct examination.

MR. NUTTER: Exhibit No. 1 will be admitted in evidence in this case.

(Whereupon, Commission's Exhibit No. 1 was admitted into evidence.)

MR. NUTTER: Does anyone have any questions of Mr. Utz? Mr. Arnold.

CROSS EXAMINATION

BY MR. ARNOLD:

Q Mr. Utz, on page 10, Section II, the paragraph that you were just amending, didn't you also intend to add the exponent for the Dakota formation in that?

A No. As I explained, the heading "All Formations Other Than Mesaverde" takes care of the Dakota.

Q But the Dakota doesn't use a point eight five.

A It simply means that it would use the same as the Mesaverde, which has been prescribed in the many previous pages. In other words, this whole sentence here from II down to Section C

has to deal with the testing of all formations other than Mesaverde.

Q Is it your point that nowhere does it actually say what the Dakota exponent is?

MR. NUTTER: That's a point that is confusing to me.

A Well, this is a wording "Except as provided in Special Pool Rules these tests shall be made and reported in accordance with the procedure set out in this order for the Mesaverde formation, provided however, that the exponent 'n' for the Pictured Cliffs, Fruitland and Farmington formations shall be point eight five."

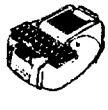
MR. NUTTER: Any further questions of Mr. Utz?

BY MR. NUTTER:

Q I want to clarify some things in my own mind on this order. Getting over here to the first page of it, for example, in Section (B) of Roman numeral I, it says "the results of the test reported to the Commission". Where does the operator file the test results with the Commission, with the district office?

A Well, he files them with the Aztec office, and I believe that's covered somewhere in here, but I'm not real sure I can put my finger on it at the moment.

Q It's the district office, though?



A It's the district office in Aztec. Unless somehow or other in the revision we inadvertently eliminated it, it's in here.

Q Over on page 4 I presume that in Section 2 there of little (a) --

A If I may interrupt, it's on "shall submit to the Commission's Aztec office", that is on page 2, next to the last paragraph.

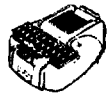
Q That's applicable to the annual deliverability test, and I presume the initial deliverability tests, shut-in pressure tests?

A If you will read down the next paragraph where it reads "When an Initial Deliverability Test accomplished in accordance with annual testing procedures is to be used as an annual test the operator shall notify the Commission, and the gas transportation facility to which the well is connected, in writing during the fourteen day conditioning period for said test."

Q Now we are on page 4. Is there any special reason why subparagraph (a) there is outlined in quotation marks?

A I don't think it is a quotation. I don't believe they ought to be there.

Q You wouldn't object to the deletion of the quotation marks?



A No, I wouldn't object at all. It's just one of those things you don't know how it got in there.

Q It is permissible in that paragraph to change the production valve and the choke setting if your production is over-running your meter chart, or the location production equipment, so I presume that one type of change only is permissible and that would be to curtail the rate of production, that would be a change downward only?

A No, sir. We allow them, due to, well, it's mainly due to, now this was discussed among the staff to quite some degree. We allow them over on page 9, the last paragraph, to over-range the conditioning period by 10%. Now, we allowed that, as a matter of fact, we discussed not allowing any over-range at all. But if a tester has a well stabilized and a choke set for four-teen-day period and then something happens to the pipeline pressure where it goes down and causes the well to exceed that amount, we don't feel he ought to be caused to retest the well because it wouldn't be his fault. But if the pipeline pressure should go down to over-range him to more than 10%, then it would invalidate the test.

Q Supposing an operator got in a position, back on page 4, where his rate of production is under-ranging the chart, would he be permitted to open it up a little bit more?

A Yes, I'm sure he would.

Q It would be a change in the flow rate for under-range and over-range of the chart as well as over-ranging the production equipment?

A This is the way the rule reads, Mr. Nutter: "Any test hereinabove provided for will be considered unacceptable if the average flow rate for the final 7-day deliverability test is more than 10 percent in excess of any consecutive 7-day average of the preceding two weeks."

In other words, for the seven days immediately preceding the flow period he cannot over-range. He has to have seven consecutive days of flow.

Q At a given rate?

A Yes.

Q Now, on page 5, well, that's the same question, up at the top of (B) there on the changing of the choke setting?

A Yes.

Q Now, down here on page 5, the third paragraph down, you refer to instantaneous pressures. Are the instantaneous pressures actually defined, and just exactly what pressures are those instantaneous pressures?

A Well, we quibbled around over that wording too. As we know from a practical standpoint, you can't take three

instantaneous pressures with one deadweight gauge. We mean when you go on the lease or meter set to take pressures, that you shall take all three pressures as rapidly as it's possible to take them.

Q Now, that isn't spelled out in so many words here. That would also apply to the instantaneous flowing pressures down on the last line on that page?

A Yes.

Q Over on page 6, when we say here that if the shut-in pressure is determined by the Commission to be abnormally low, then one of these three alternate methods may be used?

A Yes.

Q When and by what procedure will the Commission determine the pressure to be abnormally low?

A When a pressure in an area is lower than the contour pressure would show, or by experience he would know that it was substantially lower than the average pressures in the area.

Q How will the Commission notify the operators that the pressure there is abnormally low?

A If the operator sends the test in to the district office, his notification will be either by letter or note on the test returned to the operator.

Q Or possible retest?

A Yes, or use another pressure.

Q For the calculation of the test?

A Yes. The chances are pretty good that he'll already have that other pressure to use and won't have to retest.

Q Now, on this first alternative, a Commission designated value, you mentioned that the Commission would have a pressure contour map?

A It's our intention to contour the shut-in pressures on each pool. Not only for purposes of the testing, but for other information purposes.

Q When will that be available, do you have any idea at this time?

A That will be available probably sometime in January or February at the latest when all the previous test information is in.

Q I see. Now, on page 7, in the third full paragraph down, the last sentence says "The volume used in this calculation shall be corrected to New Mexico Oil Conservation Commission standard conditions." Are the standard conditions actually innumerated anywhere in this order? Would they be the conditions in the definition of D deliverability on page 9? The 15.025 and the sixty degrees are the standard conditions, isn't that right?

A Yes, they are. I believe they, that would include all necessary standard conditions. They're outlined in Back Pressure

Manual.

Q On page 8, the fourth paragraph, where it states that The use of tables for calculating rates of flow from integrator readings, which do not specifically conform to New Mexico Oil Conservation Commission Back Pressure Test Manual may be approved for determining the daily flow period rates of flow upon a showing that such tables are appropriate and necessary." Now, what procedure would be followed to show that the tables are appropriate and necessary?

A Well, several years ago I administratively approved, and I think that paragraph would give me the authority to administratively approve El Paso's tables, for example. The way I made a determination as to whether they were applicable or not, I used their tables and made some calculations and came out with the same answer as ours.

Q So, if the operator --

A All the factors are in a little different form, but they get the same answer.

Q So, by this we would presume that the operator would show you that the tables are appropriate and necessary?

A Yes, sir.

Q At their tables. Would the same apply also on page 9 in the second paragraph from the bottom where it says that "The

limiting value of multiplier may be exceeded only after the operator has conclusively shown to the Commission", and how would he show and who would he show?

A Well, it was my intention that he show the district office those matters pertaining to the test, they're on the ground, they are in a better position to analyze them than I am. The chances are if it's somewhat of an exceptional situation I will be consulted before the decision is made.

MR. NUTTER: Does anyone else have any questions of Mr. Utz? You may be excused.

(Witness excused.)

MR. NUTTER: Do you have anything further, Mr. Durrett?

MR. DURRETT: I have some statements I would like to read into the record at this time. The first statement is a statement I have been authorized to read on behalf of Pan American Petroleum Corporation reading as follows: "Pan American Petroleum Corporation concurs with the amendment as proposed by Mr. Utz and recommends its adoption by the Commission."

I would like to read a portion of the letter from Continental Oil Company. This letter is quite lengthy, so I will only read pertinent parts of it and ask the Examiner to take administrative notice of its contents as it appears in the file, for what it's worth. This reads "Case No. 2695. The use of the word "static"

when describing the pressure obtained during a flow period, may better be described by substitution of the word "stabilized". Reading from another paragraph in the letter, "The definition of Deliverability Pressure as offered on the bottom of Page 8 is difficult to interpret and should be explained more clearly."

Another paragraph in the letter, a portion of it reads as follows: "Section "C" on Page 10 should be expanded to indicate that tests other than One-point Back Pressure Test may be run for information purposes at the option of the operator, eg. Four-point Back Pressure and Isochronal Tests." "The information obtained from a One-point Test is limited."

I'm skipping a portion of the letter now and reading down lower. "In these remote areas, some distance from existing gas production and gas sales facilities, where gas reserves or gas deliverabilities are questionable, provisions should be made for allowing testing by a method or methods selected by the operator. For this reason we recommend the Rule be modified to permit a seven day period in which the operator may run such tests as he deems necessary." This letter is signed by R. E. White, Division Superintendent, Production Department, and was received by the Commission on November 7.

I would like to state also for the record that I believe that the requirement or the suggestion in this letter as to

optional test by the operator was covered by Mr. Utz.

MR. UTZ: May I make a comment on those suggestions?

MR. NUTTER: Yes, sir.

MR. UTZ: In regard to the use of the word "static", I would object to eliminating it from the thing due to the fact that P_w is actually a static pressure, and I support that contention by the fact that better brains than I have promulgated the Interstate Oil Compact Manual and they describe P_w as static column wellhead pressure.

As to his other suggestion as to the information tests, I believe the paragraph that I added on page 10 would cover that.

MR. NUTTER: Do you have anything further, Mr. Durrett?

MR. DURRETT: No, sir, that's all I have.

MR. NUTTER: Does anyone have anything they wish to offer in the case?

MR. KEYES: Keyes speaking on behalf of Tidewater. Still on page 6, it says seven day on both the tubing and casing when communication exists between the two strings. "The high of such pressures shall be used as P_c in the deliverability calculation." We feel that there's a possibility by using this that a well could be hurt because of liquids, a well that is managed correctly, produced, looked after, and you will have to blow that thing manually or use an intermitter on it, and when you use

a higher pressure on your deliverability calculation, it's going to lower your calculated deliverability, and it could possibly lower that calculated deliverability quite a bit lower than what the well is capable of producing. There's some argument or discussion that where you do have a real low pressure well that is taken care of in the subsequent 1, 2 and 3. Where the Commission, if they feel that you are using the wrong pressure, they have the right to change that.

I can see where you are working taking care of wells and testing those wells that you will come up with a calculated deliverability quite a bit lower than what the well is capable of producing.

I have three letters I would like to read into the record. "For and on behalf of A. K. Barbour and Associates, would you please register our objection to the 4th paragraph on page 6 of your proposed revision of Orders R-333-C and D and R-333-E, relating to the seven day shut-in pressure. It is our belief that the use of the highest shut-in pressure would result in a decrease of the calculated deliverability of the well. Yours very truly" by Fred Howser, Attorney.

I have another one here. "I have read your Oil Commission proposed revision of order R-333C and D and R-333E. The only revision that I am against appears in the fourth paragraph on

page 6, where it states: 'The seven-day (7) shut-in pressure shall be measured on both the tubing and the casing when communication exists between the two strings. The high of such pressures shall be used as P_c in the deliverability calculation. Using the highest shut-in pressure would decrease the calculated deliverability of the well. Yours very truly, J. R. Abraham."

Third one, "We would like to be placed on record as opposing fourth paragraph of page 6 of proposed revision of orders R-333-C and D, and R-333-E; wherein the higher of shut-in casing and tubing pressure will be used in calculating P_c in deliverability." Tidewater Oil Company, R. N. Coe, District Production Manager.

MR. NUTTER: Does anyone have anything further? We will take the case under advisement. Mr. Woodruff.

MR. WOODRUFF: Norman Woodruff, representing El Paso Natural Gas Company. El Paso Natural Gas Company concurs in the recommendations of Mr. Utz considering that the tests that we will receive will be more accurate and resulting in a more equitable distribution of the allowable between wells in the pool, and urges that the Commission adopt such recommendation.

MR. NUTTER: Thank you. Anybody else? We will take the case under advisement and the hearing is adjourned.

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 12th day of December, 1962.

Ada Dearnley
Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2695, heard by me on 11-8, 1962.

Examiner
New Mexico Oil Conservation Commission