BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

IN THE MATTER OF:

CASE 1662

TRANSCRIPT OF HEARING

MAY 6, 1959

DEARNLEY - MEIER & ASSOCIATES
GENERAL LAW REPORTERS
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MR. UTZ: Are there other appearances to be made in this case? If not, you may proceed.

(Witness sworn)

MR. BUELL: May it please the Examiner, this request is actually a dual request in that we are requesting, one, authority to commingle production, and two, authority to produce more than sixteen wells into a common tank battery. Since the testimony and the evidence relating to each one of these phases is very closely intertwined, we will simply put on our general testimony supporting both requests.

DANIEL R. CURRENS,

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

DIRECT EXAMINATION

BY MR. BUELL:

Q Will you state your full name, please, Mr. Currens?

A Daniel R. Currens.

Q You are employed by Pan American?

A Pan American Petroleum Corporation, yes, sir.

Q In what capacity and in what location, Mr. Currens?

A As petroleum engineer at Lubbock, Texas.

(Whereupon, Pan American's Exhibits were marked for identification).

Q I direct your attention to what has been marked as Pan American's Exhibit No. 1, and I'll ask you, Mr. Currens, what

does that Exhibit reflect?

A Exhibit 1 is a map or a plat showing the area covered by our application, and the area around the acreage covered by our application, generally, the area of the entire Abo Pool in Eddy County, New Mexico.

Q All right, sir. With respect to the detailed information reflected on Exhibit 1, what does that cover?

A Well, shown on here are a number of wells that are circled in red. These are the Abo Wells that are now completed in this area, or drilling to, or in the process of completing. In addition to that, a portion of the acreage is crosshatched in green. Other portions of the acreage shown on the plat are outlined in various colors.

Q What is the significance, Mr. Currens, of the crosshatched area?

A The area that is crosshatched in green here is the area that was covered by a previous order on a similar application to commingle production from several leases, and to produce more than sixteen wells into a common battery. That Order was Order R-1295, dated November 26, 1958.

Q All right, sir. What is the significance of the leases that are bordered with a varying color symbol?

A These are the leases or the acreage covered by this application.

Q All right, sir. Now, you stated that there was a

prior Order granted Pan American in this field to commingle as well as to produce more than sixteen wells into a common battery, is that correct?

A Yes, sir.

Q Where is that present battery located?

A It is located in Section 11, Township 18 South, 27 East, in the NE/4 of the NE/4 of that Section -- beg pardon -- the NE of the NW/4 of that Section, and the approximate location is indicated by the yellow marking on this Exhibit.

Q Since we will be talking about another tank battery, let's refer to that as Federal battery No. 1.

A All right, the existing one.

Q And the proposed common tank battery, let's refer to it as Federal battery No. 2.

A All right, sir.

Q For the purpose of the record, Mr. Currens, would you briefly state and locate the leases that are the subject matter of this hearing today?

A Yes, sir. On Exhibit 1, the portion outlined in green is lease NM 033825, and is the N/2 and the SW/4 of the NW/4 of Section, of the NE/4 of Section 4. All these are in Township 18 South, Range 27 East.

The next one is outlined in lavender, and it is the SE/4 of the NE/4 of Section 4. That is lease MN 025530.

Outlined in blue is lease L C 061783-A, and that is the

SE/4 of Section 4.

Outlined in brown is lease MN 025604, and that is the NE/4 and the N/2 of the SE/4 of Section 9, and the W/2 of Section 10.

Outlined in red, starting in Section 9, lease LC 065478-B, is the S/2 of the SE/4 of Section 9. Moving up to Section 3, part of the same lease is the N/2 of the NW/4 of Section 3, the NE/4 of Section 3, N/2 of the SE/4 of Section 3, and the E/2 of the SW/4 of Section 3.

Outlined in orange is lease LC 061783-D, which is the W/2 of the SW/4 of Section 3. As I previously stated, these are all in Township 18 South, Range 27 East.

Q Mr. Currens, where will the proposed common battery, which is the subject matter of this hearing, be located?

A It will be located in Section 3 in the SW/4 of the SW/4 of Section 3, at approximately the location marked in yellow on this map.

Q All right, sir. Now, as I recall, you stated that the areas crosshatched in green were given authority to commingle under Order 1295, is that correct?

A Yes, sir, R-1295.

Q I notice that some of the leases, which are the subject matter of this hearing, are crosshatched in green, is that correct?

A Yes, sir, portions of them.

Q Then, in effect, those leases which are so designated, which now have authority under Order R-1295, and are the subject

matter of this hearing, is it your request that they be given authority to produce into our proposed battery, which we have designated Federal battery No. 2?

A That is true, with one exception.

Q What is that exception, Mr. Currens?

A In the area in Section 3 that is outlined in black, we would like to produce the well that is located in the NE/4 of the SE/4, and designate it there as Well No. 1. We would like to continue to produce that well into the existing battery in Section 11, that battery No. 1.

Q Why do you want to do that, Mr. Currens?

A Well, it is producting now, and it is a matter of convenience and practicality to continue to produce it there.

Q And other than that well, which you have just designated, all of the present wells, as well as future wells in the leases, which are the subject matter of this hearing, will produce into Federal battery No. 2, is that correct?

A With the exception of that one well, any Abo well completed on or later drilled on this acreage covered by this hearing, we would like to produce into battery 2.

Q Why are you requesting authority to produce more than sixteen wells into a common battery, Mr. Currens?

A Well, it is conceivable that we might obtain more than sixteen Abo completions in this area. The battery being on the acreage covered by the application, the battery can certainly handle -

be designed to handle more than sixteen wells, and we will realize economic savings by doing that.

Q Do you know of any reason why more than sixteen wells could not produce into a common battery as efficiently and effectively as less than sixteen?

A No, sir, I don't know of any reason why we couldn't.

Q And, as well as being an economic savings, then, this will be as efficient as it would be if sixteen wells were producing into this common battery?

A I certainly believe so.

Q Now, I direct your attention to what has been marked as Pan American's Exhibit No. 2, and I'll ask you what does that Exhibit reflect?

A Well, Exhibit 2 is a sketch showing the proposed, or the facilities that we would use in this proposed battery that we are discussing, to serve the acreage covered by this application.

Q All right, sir. Would you briefly describe the facilities that are reflected on Exhibit No. 2, and I wonder, Mr. Currens, if it would be expeditious if you would just trace the production from one lease through the facilities?

A All right, sir. That would probably be the simplest manner of doing it. I might state that this is very similar to the facilities that serve our other commingled batteries in this area in this same pool. Starting on the right-hand side of the Exhibit where we have some flow lines coming in, let's simply just

trace production from the lease through the facilities that we have. We show flow lines coming into a separator, from the separator through a meter, from the meter normal production routed on out into the storage tanks.

Q All right, sir. Are any facilities installed here to check on the accuracy of the meter installation?

A Yes, sir, they are.

Q And how would that work? How would you test the meters, Mr. Currens?

A Well, let's follow the same system here. We have production coming in through a separator through the meter, and production from that meter can be routed through a prover tank prior to being placed into the normal storage facilities. Therefore, we can check the meter against the prover tank.

Q With these facilities as proposed, how would you accomplish a production test of an individual well?

A Well, sir, we have all strong flowing wells in this area at this time. The area covered here. We would shut in all wells on a particular lease that would be going through any particular meter. We would shut in all but the one that we were testing. The well we were testing, we would continue to produce, and only one well would be producing at that time. Therefore, the production from that well would come in through the separator, through the meter and on into storage.

Q In your opinion, Mr. Currens, and based on your

knowledge of the producing capacities of these Abo Wells, about how long do you think it would take to accomplish a production test?

Q We would contemplate production tests would take about six hours.

Q In other words, the remaining wells on the lease other than the wells being tested, will only have to be shut in for a six-hour period in order to accomplish an individual well test?

A Yes, sir.

Q In your opinion, are the capacities of these wells such that with that six-hour shut-in that they will be able to make their daily allowable in the remainder of the twenty-four-hour period?

A Oh, certainly, sir. They are very strong flowing wells.

Q And in the event that you left them shut-in the entire day, they have sufficient capacity in the ensuing month that they could make up that day's allowable in complete conformance with the Commission's Rules with respect to production of allowables?

A Yes, sir.

Q What type meters are proposed for this installation, Mr. Currens?

A We plan to use an A. O. Smith PD meter.

Q To your knowledge, have these type meters been field

tested?

A We have conducted some tests on the meter we plan to use in this particular field. We've had very good success with that meter.

Q Were these meters tested in this particular pool?

A Yes, sir, we've tested them in this pool.

Q And they gave every indication of extreme accuracy, is that right?

A Yes, sir, we are well satisfied with them.

Q With respect to corrosion, Mr. Currens, do you have any concern about corrosion of meters in this pool?

A Even though this is a sour crude, we've had no difficulties from corrosion with any of our existing installations, or on any of our tests.

Q Are you taking any particular action with respect to these meter installations from the standpoint of corrosion production?

A Certainly. We are going to use the meter designed for corrosive service in this pool.

Q Pan American is currently metering production in the Empire-Abo, are they not?

A Yes, sir.

Q Have we had any corrosion problems in those meter installations?

A No, sir, we have had no problems of that nature.

Q In your opinion, Mr. Currens, will the Commission's approval of this request we are making here today, serve conservation as well as protect the correlative rights of all parties of interest?

A Yes, sir, I certainly believe so. Certainly we will realize some economic savings in making this installation, and we will realize some savings in utilizing this installation which should give us a lower economic limit for the wells in this pool, and, therefore, give us more opportunity to recover more ultimate oil from this pool, or from these wells. With respect to correlative rights, I certainly think they are amply protected here in that no production, or oil production will be metered prior to the time that it is commingled with production from any other lease. Each lease will be metered separately prior to commingling.

MR. BUELL: That's all we have at this time, Mr. Examiner, in the way of testimony. I would like to submit at this time what has been marked as Pan American's Exhibit No. 3, which is a letter from the United States Geological Survey approving the installation that we have described here today. These are all federal leases, and the U.S.G.S. is the only royalty owner. And may I also formally offer Exhibits 1 through 3, inclusive?

MR. UTZ: Without objection, Exhibits 1 through 3 will be accepted into the record.

(Whereupon, Pan American's Exhibits 1 through 3 were received in evidence.)

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Currens, how long have you been using PD meters in this pool?

A We've had a PD meter on test in this pool for about two months.

Q Two months?

A Yes, sir.

Q Do you feel that that is long enough to assure you that it will meter sour crude satisfactorily?

A We have had no difficulty with them to date. We plan to use the meter designed for corrosive service.

Q What features does a meter designed for corrosive service have over the one that is not designed for corrosive service?

A Well, it is the material that is used in construction of the meter. There are corrosive resistance materials.

Q Stainless steel, or --

A Well, --

Q -- nickel alloies, or what?

A I don't recall the exact specifications on this particular meter. It is the one recommended for corrosive service, however, by the manufacturer.

Q Do you know of any of these meters being in service in any sour crude area for any length of time?

A No, sir, I don't.

Q Mr. Currens, could you tell me which wells are being produced into your Federal No. 1 tank battery?

A At this time?

Q Yes.

A All the wells that are now completed on the area that is crosshatched in green are now going into that No. 1 battery.

Q In other words, --

A All the red circled wells that are completed.

Q I see. Then, is it my understanding that some of the red circled wells that are now completed, you wish to disconnect from the No. 1 and produce into the No. 2?

A Yes, sir, that is true.

Q In effect, this is deleting a portion of Order 1295, is it not?

A Yes, sir, in effect, it is.

MR. PAYNE: One Order entered after this hearing would take the place of Order R-1295, if it was written right, of course?

MR. BUELL: Yes, sir.

MR. PORTER: Make it all inclusive.

MR. PAYNE: Of course, we still wouldn't know which wells are going to be produced into which battery, is that right?

MR. BUELL: Yes, sir. Well, now, all the wells on the leases that are the subject matter of this hearing, with that

one exception, will produce into Federal battery No. 2.

QUESTIONS BY MR. PAYNE:

Q (BY MR. PAYNE:) Approximately how many wells are producing into the No. 1 battery now?

A At this time?

Q Yes, sir.

A There are fourteen, sir.

Q And of the wells that are presently drilled, how many will be producing into the No. 2 battery?

A Of the existing tank completions?

Q Of the existing tank completions, yes, sir?

A There will be nine, sir, of the existing completions.

Q So there will be fourteen into the No. 1 battery, and nine into the No. 2 battery at this time?

A Pardon me, sir. I understood your second question to be, what would be going into the No. 1 -- what would be going into the No. 1 if we got this Order?

Q Yes.

A There would be nine going into the No. 1 going at this time, and there would be eight going into the No. 2 at this time.

Q I see. Now, these additional wells that are drilled, do you propose to produce all of them into the No. 2 battery?

A Any that are drilled on the acreage that's outlined by this application?

Q Yes.

A Yes, sir.

MR. PAYNE: All right, thank you.

QUESTIONS BY MR. PORTER:

Q You may have had some discussion, but have you encountered any difficulties with PD meters for corrosion in your installations?

A In New Mexico, this is the only place that we have used PD meters. I don't know of any difficulty we've had at any other place along those lines.

Q The reason I ask that, I inject this into the record, is because we have had an occasion for having to revise an Order to allow the use of either dump type or PD because of corrosion in the particular area in Eddy County.

A But it is a different formation than this. No doubt the characteristics are different.

MR. PORTER: That's all I have.

MR. UTZ: Any other questions of the witness?

MR. BUELL: I wonder if I may formally request that the Order simply cover meters period. That's the way Order R-2195 is, and that way that problem will be obliterated.

MR. PAYNE: Dump type or PD meters.

MR. PORTER: I was just asking the question for my own information to see if anyone has run into trouble with these meters on account of the corrosive nature of the oil.

MR. BUELL: I might state, generally it has been our

experience in Texas where we have used these meters, that we have not experienced any extreme difficulty with corrosive crude where proper precautions were taken.

MR. UTZ: Using the corrosive resistance meters?

MR. BUELL: In the meters themselves, the material, yes.

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

Just a moment, did you bring out anything in regard to safety features in these wells in the event of line breakage?

A Well, sir, the wells will be controlled from the wellhead.

MR. UTZ: They will be controlled from the wellhead with --

A With normal flow line facilities. The control in this installation that we are asking for, is not at the battery of the wells themselves. What we are asking for, is, at this time --

MR. UTZ: It would be controlled manually?

A Yes, sir.

MR. UTZ: The witness may be excused.

(Witness excused)

MR. UTZ: Any other statements to be made in this case? If not, the case will be taken under advisement, and the hearing is adjourned.

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 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 11th day of May, 1959, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

Joseph A. 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. 1662, heard by me on May, 1959.

....., Examiner
New Mexico Oil Conservation Commission