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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico

February 3, 1971

EXAMINER HEARING

IN THE MATTER OF:

Application of Continental Oil  
Company for a waterflood expansion,  
a dual completion, and lease  
commingling, Lea County, New Mexico.

Case No. 4486

BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING



1 MR. NUTTER: Call Case 4486.

2 MR. HATCH: Case 4486, Application of Continental  
3 Oil Company for a waterflood expansion, a dual completion,  
4 and lease commingling, Lea County, New Mexico.

5 If the Examiner please, this case was heard on  
6 January 6th, 1971, but mistakes in the advertising had to be  
7 corrected, and I'd suggest that an order be issued on the  
8 basis of that hearing, unless there's objection at this time.

9 MR. NUTTER: Are there any appearances at this  
10 time in Case 4486? If not, the case will be taken under  
11 advisement and an order issued on the basis of the record  
12 made previously.

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BEFORE THE  
NEW MEXICO OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
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EXAMINER HEARING

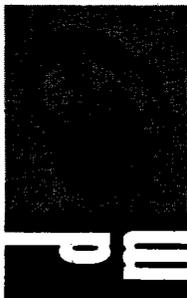
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IN THE MATTER OF: )

Case No. 4486

Application of Continental )  
Oil Company for a waterflood )  
expansion, Lea County, New )  
Mexico. )  
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BEFORE: Daniel S. Nutter, Examiner

TRANSCRIPT OF HEARING



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MR. HATCH: This is the Application of Continental Oil Company for a waterflood expansion, Lea County, New Mexico.

MR. KELLAHIN: I am Jason A. Kellahin, Kellahin and Fox, appearing for the Applicant. I ask that the record show that the witness, Mr. Victor T. Lyon, was previously sworn.

MR. NUTTER: The record will so show.

MR. KELLAHIN: If the Examiner please, in exception to Case No. 4486, there was inadvertently an error on one point of the application as to the description of the well location. The proposed well location was to have been in the southwest quarter of the northeast quarter, which was stated in the first paragraph in the application, and then in paragraph 4 it stated the northwest quarter, so on that basis there is an error in the advertising.

MR. NUTTER: We can go ahead and hear the case, but we will withhold entering the decision until such time as the case has been readvertised and called again for Hearing.

MR. VICTOR LYON, having been previously sworn, testified as follows:

(Applicant's Exhibits Nos. 1 and 2  
were marked for identification.)

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q You are Victor T. Lyon?

A Yes.

Q You are the same Mr. Lyon who testified in the previous case and was qualified by the Commission?

A Yes, sir.

Q Mr. Lyon, it was proposed by Continental Oil Company in Case No. 4486, which is the Application of Continental Oil for an amendment of Order No. R-682 for an authorization of an additional injection well, for the establishment of a 280-acre project area for the Jack A-29 waterflood project. Now, referring to what has been marked as Applicant's Exhibit No. 1, would you identify that exhibit?

A Yes, sir, Exhibit No. 1 is a location plat of the proposed project area of a two-mile radius surrounding the project area. The project area is outlined in red and consists of all of the east half of Section 29 except the northeast quarter northeast quarter which is a part of the Langlie-Jalmat which lies immediately south of this project area. The area is shown by a dashed line. To the east of the project area is the Langlie-Mattix-Woolworth Unit operated by

Amerada. The injection well in the area are shown by the circle-scribed triangle and the proposed injection well to be added shown with a dashed-triangle, and the red circle located in Unit G, that is the southwest quarter of the northwest quarter of Section 29, Township 24, south, Range 37 east. This projection area actually consists of two leases or part of two leases: The Jack-A lease and the Jack-A 29 lease, and the Jack-B 29 lease consists of the southeast quarter southeast quarter and the 40-acre tract with one well on it. The remainder in the area of the Jack-A 29, this is a waterflood project, which has been developed almost by accident when the Langlie-Jack Unit was formed. There were no offset wells in the Jack-A 29 lease, and the No. 3 was a Jalmat gas well. At that time it did not appear to be logically included in the acreage in that unit, and we thought that the well on the south or the southern portion of the lease would be included in the Langlie-Mattix Unit. This has not been the case, and Amerada has requested that we cooperate with them in a waterflood project, which we are doing. In the original hearing we didn't have any intention to unitize that 280 acres, but just before that hearing we held a conference with

the USGS and there are two royalty provisions which apply to the two leases, so consequently they requested not to unitize them, but that we operate them on a cooperative basis and measure production of one of the leases and go on an accounting basis of subtraction method, which we have proposed to do. At that time it was very doubtful if we would do additional drilling. We did intend to recomplete No. 3 as a producer so that the A-portion of the lease would be one producing well. We had expected it to receive response from the Langlie-Jack water injection. When this work was done, the well had not responded and we decided to drill Well No. 5, which is located in Unit B of Section 29, and unexpectedly this well came in from excess producing capacity above the normal unit allowable, and by use has received stimulation from the injection in the Langlie-Jack unit. We now propose to drill Well No. 6, but since there is not production in this portion of the lease, we would like to produce that well for some period of time, which is undetermined at this particular time, just to give some valuation of the property. Also, I think, that it is fortunate for the owners under the A-lease that we did not unitize them. It surely would have penalized them in the participation because we did not anticipate that it would be that productive. So far as Well No. 5 is concerned, it

is offset by the Langlie-Jack Unit No. 14 to the north and 17 to the east. It is desirable to enclose or complete the enclosure Well No. 5 by drilling the well to the south. It is also desirable to complete the pattern and run No. 3 by injecting a well to the west.

The location of the well has not been staked and there are a number of gas lines which run through this area, but they have looked at the locations on the ground and they find that they can drill a well in an orthodox location on that proration unit.

Q Would you propose to convert that immediately to injection?

A Not immediately; it may be a matter of a few days; it may be a matter of a few weeks possibly even or a few months, but I don't anticipate that it would be more than two months.

Q As I understand it, presently you have two basic leases of different overriding royalties, different basic royalty rates?

A Yes.

Q You commission the parties on a commingling of the production?

A Well, there are parties in the B lease who

also own a proportionate interest in the A lease, and there are owners in the A lease who do not own an interest in the B lease. We have contacted all of these parties and described to them what we propose to do, and how we plan to measure and report the oil production and base their payments, and I have received written consent from all of the parties in those two leases.

Q Actually your No. 5 lease is not in the waterflood project and would not be offset immediately by the injection well, is that correct?

A The offset injection wells were not injection wells in the project area. No. 14 and No. 1710, prior to the formation of the Langlie-Jack Unit, were a part of this same lease. The lease as to the other unitized formation is still a part of the same lease. As to the waterflood formation, they are segregated now by virtue of the Federal Laws, and they are segregated into separate leases. It appears that the ownership is, at least, partially the same in these wells, there could be constructive interpretation of an offset. There is another way of looking at it: Since this is a waterflood to the north that has been under operation for over two years, there could be a buffer zone here to permit Well No. 5 to

produce to that capacity, and naturally it is very important to us that it be permitted to produce at capacity because we feel that this is definitely a waterflood oil situation, and if it isn't produced, there is good likelihood that it will sweep past the well and perhaps never be recovered. The only way I know to prevent this from happening is to produce as it comes into the well bore.

Q In other words, you are asking for a project area which would consist of 280 acres?

A Yes, sir.

Q How would you allocate to production the various wells; would you have an allowable for each well unit?

A Yes, sir.

Q An injection well or a producing well?

A Well, as it produces--under Rule 701--the project and the allowable would be based on the number of producing wells within a project area times the normal units allowable, or 42 barrels a day, which ever is greater.

Q It would also include an injection well, too?

A Yes.

Q Aren't you asking for the same thing as Rule 701 provides?

A Yes, sir, except we do not have at this time injection wells in our project area across from No. 5, so that it could not under a strict interpretation of the Rule be considered to be part of the project area.

Q How many wells would you have, now, then to allocate to production?

A At the present time there are five wells in the proposed project area, and therefore the project allowable would be five times the normal units allowable.

MR. NUTTER: Do you mean five wells include the proposed gas well up here?

THE WITNESS: It is no longer a gas well. This map hasn't been corrected.

MR. NUTTER: No. 3 has been completed.

THE WITNESS: No. 3 is now a Langlie-Mattix Oil Well.

MR. NUTTER: How much will it make?

THE WITNESS: Very little.

MR. NUTTER: Hadn't you been skirting around, Vick? How much will No. 5 make?

THE WITNESS: Well, I was thinking this morning that I had forgotten to bring my pre-completion report, but I believe that it is in the neighborhood of 125 barrels a day.

MR. NUTTER: Is it a steady or does it go up and down or what?

THE WITNESS: We had to curtail it because of the last allowable restriction. I haven't a recent test, but I would be glad to furnish one.

MR. NUTTER: Now, the Langlie-Jack Unit, it is a producing well which offsets No. 14 and 17, for example.

THE WITNESS: No. 15, in the latest test I saw, it was 42 barrels of oil per day.

MR. NUTTER: So actually this No. 5 is a better well than those wells up there, then?

THE WITNESS: Yes.

BY MR. KELLAHIN:

Q How would you allocate this production in the event this project reaches the maximum allowable?

A Until that time, we would allocate just on the basis of the well capacity. We do not expect it to happen. In the event that we do reach maximum allowable in the project area, we would propose to allocate that, too.

Q Among the leases on the basis of the number of producing wells on each list?

A At the present time there is one producing on the B-lease and 2 on the A-lease and consequently the

allowable would be allocated  $2/3$  to the A-lease and  $1/3$  to the B-lease. When Well No. 6 has been drilled and we do propose to drill a well in No. 7 in the unit-J, when those two wells are drilled there would be a 7-well project allowable and we would probably allocate on the basis of  $3/4$  on the A-lease and  $1/4$  on the B-lease.

Q Now, turning to what has been marked No. 2, would you identify that exhibit?

A Exhibit No. 2 is a schematic diagram of the proposed construction of the Well No. 6 as an injection well. We will file our form C-101 to drill this well as a producer, and then after we have performed the desired testing, we would convert it to an injection well, which is also shown on this exhibit. The proposed depth size and the amount of cement to be used are shown on the exhibit, and also the proposed tentative perforation in the pipe, and the proposed depth of the setting of the Packer. Also there is another question: If the well is drilled as proposed here, we would, of course, fill the annular space with inert fluid and instal a pressure gauge for a sleeve casing valve. There is consideration being given to dually completing this well. Referring back to Exhibit No. 1 and Well No. 3, which was a gas well for a 320-

acre gas proration unit which is still in existence under a communitization agreement, we are evaluating the remaining gas reserves and there is a good possibility that this well will be dually completed as an injection well in the Langlie-Mattix and Jalmat, and in which case, of course, we will not fill the annular space with inert fluid, and we would instal additional strings of tubing, and by the performance of the gas zone, we would be aware of any escape of water into the upper zone.

Q Were Exhibits 1 and 2 prepared under your direction and supervision?

A Yes, they were.

MR. KELLAHIN: We would request that Exhibits No. 1 and 2 be received into evidence.

MR. NUTTER: Exhibits No. 1 and 2 will be admitted into evidence.

MR. KELLAHIN: That completes our case, Mr. Nutter.

#### CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Lyon, I'm not sure whether I misunderstood you or not, but on this Jack-A lease you have gotten two injection wells, two producing wells?

A Right.

Q You are proposing to drill No. 6. It is eventually going to produce injection wells, but for the time being, you want to count it as a producing well?

A For No. 5 to be eligible to be included as a project, No. 6 would have to be an injection well. Unless it is considered a buffer zone or if we give it a constructive interpretation of being offset by the injection wells, and those wells were in the offsetting unit.

Q This other phase of the case, it might have to be advertised?

MR. KELLAHIN: That was omitted from the advertising, and we don't want the allocation allowable to be in there as a project as was outlined by Mr. Lyon, and this will require further advertising since the case is to be advertised anyway.

THE WITNESS: It requires special consideration.

MR. KELLAHIN: It is an exception to Rule No. 701, and I think it is covered by the Application.

MR. NUTTER: It is the old gas well, not the Jalmat.

THE WITNESS: Yes, sir.

MR. NUTTER: It would offset the well?

THE WITNESS: Yes, sir, it would.

MR. NUTTER: It wouldn't make any oil?

THE WITNESS: Right. It hasn't responded to waterflood, consequently the basis of my statement is that I didn't think that it will be producing for very long.

MR. NUTTER: It probably cuts the natural saturation, and there is no waterflood oil.

THE WITNESS: Right. It could be, also, that it's rather an unusual area where the structure to control the accumulation of oil where there is so much porosity and permeability, and if there is a pinch-out near that well, then, of course, it could have received an unusually fast response to water injection. Of course, that would bring up the production--

MR. NUTTER: (Interrupting) Yes, it would bring up production, and if No. 5 wasn't producing at capacity, the oil would be swept on by it.

THE WITNESS: Yes, swept on down to No. 6, and if there is a barrier there, it could be efficiently swept; if there is not a barrier there, then, you know, we have no way of knowing where it will go.

MR. NUTTER: There are two leases, the Jack-A and the Jack-B, and it will not be communitized. This will just be covered by this?

THE WITNESS: That is correct. This isn't actually another phase that would have to be heard after a hearing to commingle production from these two leases.

MR. NUTTER: We have a commingling.

THE WITNESS: We have a commingling order in the letter which we forwarded to this administration office, and there was a statement that the Commission understood all interest in both leases were common, and I had thought that I had clarified that in the Application, and in going back and reading the Application, it appeared that the interpretation that you made could have been made and it was not my intention to mislead the Commission in writing it that way.

MR. NUTTER: The way I read it, this would not be eligible for administrative approval by a subtraction method.

THE WITNESS: Right, but we will measure the production of the one lease, and we have approval of the U. S. G. S., and so we had written consent of the owners and, therefore, we felt that since there is no production anyway until No. 5 was completed, that certainly there was no harm done by anybody.

MR. NUTTER: We are re-advertising this case anyway, and I think we should re-advertise to include

the advertisement of this commingling because the administrative approval isn't legitimate since the ownership is not an identical issue with our order commingling.

THE WITNESS: Right.

MR. NUTTER: What we will need will be the consent of all of these various parties as part of the record, and we will need, also, as part of the record, in this case that this be furnished at a later date by mail.

THE WITNESS: Can I send you xerox copies?

MR. NUTTER: Yes.

MR. KELLAHIN: That will be reported in the record in this case, yes, sir, and we will include it, then, in the advertising.

MR. NUTTER: We can include it in the advertisement, that is the commingling. Do you have it there, Vic?

THE WITNESS: It is recited in the Application.

MR. NUTTER: K.T.B. 214, that will have to be recinded.

Are there any other questions of Mr. Lyon? If not, he may be excused.

MR. KELLAHIN: That is all that I have, Mr. Nutter.

MR. NUTTER: If there is nothing that anyone wishes

to offer in Case No. 4486, then we will take it under advisement.

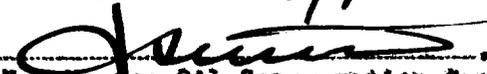
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STATE OF NEW MEXICO    )  
                                  )    SS  
COUNTY OF SANTA FE    )

I, RICHARD L. NYE, Court Reporter, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

  
\_\_\_\_\_  
RICHARD L. NYE, Court Reporter

I do hereby certify that the foregoing is a complete record of the proceedings in the Executive hearing of Case No. 4486, heard by me on 1/6, 1972.

  
\_\_\_\_\_, Examiner  
New Mexico Oil Conservation Commission