

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
APRIL 6, 1960

IN THE MATTER OF: :
: :
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CASE 1933 Application of Ambassador Oil Corporation for a :
special allowable on a temporary basis for one :
well offsetting a capacity waterflood project :
in the Caprock-Queen Pool, Lea and Chaves Coun- :
ties, New Mexico. Said well in the Ambassador :
Oil Corporation State "C" Well No. 1, located :
in the SW/4 SW/4 of Section 36, Township 12 :
South, Range 31 East, Chaves County, New Mexico. :
: :

BEFORE:

Daniel S. Nutter, 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. NUTTER: Take next Case 1933.

MR. PAYNE: Case 1933. Application of Ambassador Oil Corporation for a special allowable on a temporary basis for one well offsetting a capacity waterflood project in the Caprock-Queen Pool, Lea and Chaves Counties, New Mexico.

MR. JENNINGS: I am James T. Jennings, appearing on behalf of Ambassador Oil Corporation, and Mr. Tom Lowry of Fort Worth is appearing with me. We have one witness, Mr. R. H. Vick

(Witness sworn)

ROBERT H. VICK,

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



DIRECT EXAMINATION

BY MR. JENNINGS:

Q State your name and your occupation.

A Robert H. Vick. Presently employed as manager of engineering for Ambassador Oil Corporation in Fort Worth.

Q How long have you been engaged in that capacity, Mr. Vick?

A Two years.

Q Are you in charge of the water flood operation for Ambassador Oil Corporation?

A Yes, sir.

Q Have you heretofore testified before this Commission on many occasions?

A Yes, sir.

Q And have your qualifications been accepted by the Commission?

A Yes, sir.

MR. JENNINGS: Does the Commission desire any further qualifications on this witness?

MR. NUTTER: No, sir. Please proceed.

(Whereupon, Ambassador's Exhibit No. 1 was marked for identification.)

Q (By Mr. Jennings) Mr. Vick, would you refer to what has been marked as Applicant's Exhibit 1, and tell briefly, just explain briefly the things reflected by that plat?

A Well, this is a plat of the northern portion of the Cap-



rock-Queen Pool, indicating a portion of the Graridge operated north Caprock-Queen No. 1 on the east side; the central portion being the north Caprock-Queen unit No. 2, operated by Ambassador. The lower portion being the north Caprock-Queen unit No. 3, or the north central Caprock unit operated by Great Western Drilling Company. On the very western portion of the plat is indicated by a circle in the orange color, the recently approved Pebble Unit, with Great Western as the operator. In the upper central portion of the plat, encircled in red, is a 240-acre lease, the New Mexico State "C" lease, presently operated by Ambassador Oil Corporation.

Q Mr. Vick, is all of the area lying to the south and east of the well that you have just described in a capacity water flood area?

A Yes, sir.

Q At this time, is the well, which is marked No. 1, encircled in red, A.O.C. 1 "C" State Well, committed to any unit?

A No, sir, it is not.

Q When was that well drilled, Mr. Vick?

A It was in the--Originally it was drilled approximately around 1950. I'm not sure. By Delfern Oil Company, and completed, and it swabbed a little oil. It was first shot on the original completion and made very little oil. They came back in 1954, and the well had been temporarily shut-in all that time, and they cracked the well in 1954. And I'm not sure whether they recovered all of



their load from the crack or not, but it remained dormant, and it was shut-in until we re-entered and set a liner in the well in January of 1960, and sand cracked the well and completed it as a producer.

Q What did the well potential at the outset?

A When Ambassador--

Q When you reworked the well?

A Approximately twenty barrels.

Q Is that production increased or decreased or what?

A It has decreased to approximately seventy-five to eighty barrels a day.

Q You say decreased?

A It is increased now. No water, and as of right now, it's producing in the range of seventy-five to eighty barrels a day and no water.

Q Do you have any reason to expect that the production from this well will increase substantially?

A Not substantially. It may increase some, but we don't anticipate too much more under present conditions.

Q Are you familiar with the history of the North Caprock-Queen Unit located immediately east of this well?

A Yes, sir. Caprock No. 1 and No.2.

Q Ambassador Oil Corporation is the operator of that Unit?

A Unit No. 2.

Q Well, Mr. Vick, why don't you think that that well will have a substantial increase in production?



A Well, theoretically, it's operating at approximately what is indicated to me to be a peak production from the conditions surrounding the well at this time. That's in comparison with the operations on both--producing operations on both Caprock Unit No. 1 and Unit No. 2.

Q Briefly, what is the history of the Caprock-Queen No. 2 production?

A Well,--This is all a matter of monthly record. I can read to you from the curve which is submitted, or production data which is submitted monthly. The Caprock Unit No. 2 attained a peak production of approximately a hundred forty-two thousand barrels in September of 1959, and has since been declining to an approximation of ninety-one thousand barrels per month in the month of March, 1960.

Q How much has it declined since the first of the year?

A Well, January production was approximately a hundred and thirty thousand with March production being ninety-one thousand; forty-one thousand barrels approximately.

Q Well, Mr. Vick, just what relief do you seek for your No. 1 "C" State Well?

A Well, we are asking for an allowable relief on a temporary basis, pending negotiations, completion of negotiations with the offsetting units, and as to possible renegotiations on a different participation basis, either into the Pebble Unit or into the Caprock Unit No. 1 or No. 2, or some other alternative, such as awaiting



further development to the north and to the northwest to enable us to pool this tract with other tracts in the area that are presently undeveloped and may potentially be developed at some time.

Q Why has this well not as yet been included in one of the other two units, the Pebble and Caprock-Queen Unit?

A Well, as of today, we haven't been able to negotiate what we feel is an equitable participation for this tract into other units.

Q Do you know how the production from this particular tract compares with production from the other wells that are offsetting the Caprock-Queen Unit, No. 2 Unit, their being the wells that are located along the northwest side of the Unit? I believe they are the J. C. Maxwell, according to that plat, J. C. Maxwell State "F" 31 and the Great Western State, and Intercoast Petroleum Corporation?

A Well, I don't have the exact figures, Mr. Jennings, but our production and response of our well is considerably more. I don't believe that any of these wells, if they were allowable wells, are very much in excess of allowable wells. That is all actually a matter of record in the Commission's reports, and we don't have the latest yet on those wells.

Q Are you continuing your negotiations with the adjoining operators?

A Yes, sir.

Q Have you made any effort to dispose of this tract or sell it to the adjoining operators?

A Yes, sir. We have asked for an offer, purchase offer, from



the present operator of the Pebble Unit, Great Western Drilling Company, and we haven't heard any information yet.

Q Are you willing to compensate the offset operators at a reasonable rate for the well, for the water which they inject into this, offsetting this?

A Yes, sir, we would definitely be.

Q Mr. Vick, in your opinion, if you are not able to produce this well at its present capacity, what do you think will happen to the oil underlying that tract?

A Well, it will naturally be by the simple mechanics of waterflooding swept out from under the tract, a portion of it possibly going straight west into the Pebble Unit, and a portion of it going to the northwest in an undeveloped area, where it may possibly be lost forever, if that area isn't developed at some later date.

Q Do you have any basis for your opinion? Is there any history of the production in the area upon which would justify your opinion?

A Yes, sir. I think Great Western has a well down in Section 2 that is very typical of actually what might happen under some conditions such as that. The well is presently producing on the reports we have, a hundred percent water, and it did potential for almost an allowable well, I believe twenty to thirty barrels.

Q Did that indicate that the oil is being pushed northwest or in a westerly direction?



A Yes, sir.

Q Mr. Vick, do you know the approximate rate of injection in the injection Well No. 29-1 on the North Caprock-Queen No. 2 Unit? That well offsets the well in question, on the east.

A Yes, sir. During the month of February it was approximately four hundred fifty barrels, in that range, and during the month of March it was an average of approximately three hundred and fifty barrels.

Q That's per day?

A Yes, sir.

Q Is it possible for you to reduce the amount of water injected into that well?

A No, sir, not from an efficiency standpoint. From a purely engineering standpoint we would hesitate to do so, and also from the verbal commitments that we have with the--as operator of Caprock No. 2 and with Graridge, who is current operator of Caprock Unit No. 1. Well No. 29-1 is a portion of a five spot, regular five spot pattern, with the center producing well being the 36-50 Well, which is in the Caprock Unit No. 1, and which would be materially affected from an efficiency standpoint by any reduction in singular reduction in one of the injection wells surrounding that pattern, as far as an imbalance and pattern efficiency. The cumulative injection into that well since it was started later on an injection status, is considerably below the other three wells surrounding that pattern.



Q In your opinion, if this well is restricted in any way, will the oil remain in place, or will it be pushed away by the adjoining waterflood?

A Well, from a recovery standpoint, the oil might not be pushed directly in the path of the well. It might not be pushed away as fast, but the water production that is eventually going to hit the well isn't going to slow down any due to any small or slight decrease in the injection into Well No. 29-1. Your water front would proceed at approximately the same speed then, and any reduction in there would simply reduce the ultimate oil recovery in the State "C" No. 1.

Q Would the rate at which the water will ultimately reach that well be slowed down if the well itself is restricted to oil production from the well?

A No, sir. Both the oil front and the water front will continue to go right on by.

Q Regardless of the amount of production from the well?

A Well, the ultimate recovery from the well would be more, if it were allowed to produce at capacity, then if it were restricted and allowing the oil to be flushed on by.

Q When, in your opinion, will the water front hit this well?

A Well, we have no way of actually knowing. We expect it to be within the next month or so.

Q Is the well producing any water at this time?



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A No, sir.

MR. JENNINGS: I believe that's all.

MR. NUTTER: Any questions of Mr. Vick?

MR. PAYNE: Yes, sir.

CROSS-EXAMINATION

BY MR. PAYNE:

Q Mr. Vick, this tract is actually included in the Pebble Unit insofar as the order of the Commission is concerned?

A Yes, sir.

Q So that if you want to take it out of there, you would have to ask for administrative approval for contract action?

A Yes, sir, either we would or the operator of the Pebble Unit would.

Q Now, do you have a testing allowable assigned to this well now?

A Yes, sir. It was assigned approximately the last two weeks of the month of March.

Q On a two-week basis?

A I'm not certain of that. I believe that's what it is.

Q Now, how long do you feel that it's going to take Ambassador to arrive at some kind of a solution as to which unit this well should go in?

A Well, as I stated earlier, we have made proposals which we felt were, from our standpoint, were equitable, and we are continuing to follow through on the other attempts to at some time have



negotiations such as a sale of the tract or of pooling with some additional tract, or participating in cost of the injection systems of the adjoining units, to enable us to in some form be classed as a portion of a water flood, and as such, receive some benefits from same.

Q Now, is your only objection to going in the Pebble Unit in participation formula, or are you also concerned about the Pebble Unit as going to be a prorated water flood?

A No, sir. The proposed formula was our only objection.

MR. NUTTER: The participation formula?

A Yes.

Q (By Mr. Payne) Now, Mr. Vick, I take it you are of the opinion that oil is still being pushed to and maybe by this tract?

A Yes, sir.

Q And it hasn't just been pushed over there and stopped now?

A No, sir.

Q So, would you also say that oil is being pushed directly north of the 29-1 Well?

A It might possibly, to some degree. The question of saturation in this old gas cap area is very--I don't believe anyone is able to pin it down except from present indicated performance of the producing wells. To me, that is the only thing that we have got to go on.

Q Now, in view of the fact that you know that oil is moving off your unit, do you think it might behoove you in the interest of



ultimate recovery to drill a well on your Ambassador tract in Section 36?

A We have had that well on the program for development for quite some time, and after the final participation formula came out on the Pebble Unit, it makes the question of economics concerning the well very doubtful to us, based on an average participation comparable to our State "C" Well.

Q Now, it might be just a question of semantics, but I take it that all the allowable you need for this well is in the neighborhood of seventy-six barrels?

A Well, that is my opinion that the well--Well, for the last week and a half, well, since February 28, when it produced seventy-two barrels, it hadn't materially increased. Of course, we have had a decrease in injection on Well 29-1, due to strictly reservoir conditions, of approximately a hundred barrels. But I still feel that that seventy-five to eighty barrels is somewhere near the peak that we can expect, due to a one-way drive, more or less. But with this undeveloped area to the north and the depleted or the lower pressure area to the west, we have no way of knowing actually what type of drive or recovery efficiency that we are actually receiving from 29-1.

Q Now, you don't anticipate cutting your injection rate on the 29-1 further? You have cut it a hundred barrels per day, this year?

A It has reduced itself, yes, sir. The only reason that I



can see for the reduction might be a possible pressuring up of the two leases to the north or the continued distance that the oil bank or water bank, oil water front, has transgressed from 29-1 as it goes further. It's naturally going to create more pressure and resistance and at the constant injection pressure on 29-1, the volume would continue to decrease as the--

Q This back pressure hasn't been of sufficient a magnitude, however, to increase the production or to make your 3-2 Well a flowing well, has it?

A No, sir.

MR. PAYNE: That's all. Thank you.

QUESTIONS BY MR. NUTTER:

Q Mr. Vick, when Ambassador was forming Caprock No. 2, why wasn't this State "C" tract included in that Unit?

A Well, actually, I don't believe any thought was given to the fact that the old gas cap area covered such an extensive area.

Q Well, now, this well was drilled in 1950; is that correct?

A Approximately then, yes, sir.

Q And then it was fractured and an attempt was made to recomplete the thing in 1954?

A Yes, sir.

Q And on neither one of these occasions was it realized there was any production in this area?

A No, sir. That's right. It is approximately the same condition as would surround that old Malco 1-D in Section 36 up



there in the southeast of the northwest. There is still a doubt as to whether--It may be proved up later, and be made productive under similar circumstances as our State "C" No. 1 Well was. But as of right now, Graridge hasn't seen fit to re-enter the well.

Q Well, the State "C" No. 1 was considered a non-productive well in 1958, and also in 1954?

A Yes, sir.

Q Do you think that the fact that it's productive now and capable of making seventy-five or seventy-six barrels per day has any indication as to the injection rates into the 29-1 Well? That perhaps they were so high as to cause the oil under that forty-acre tract to migrate under this other forty-acre tract?

A Well, certainly some oil has migrated, Mr. Nutter, but as is evidenced along the whole western side of Caprock Unit No. 2, it's a composite effect over-all from the total water flooding in there. That's my opinion of it.

Q You have built up a high pressure area in the water flood area, and this was a low pressure area, so some oil has migrated over there?

A Yes, sir.

Q This, despite the fact that this Caprock No. 2 area has had capacity allowables?

A Yes, sir.

Q And has produced to capacity?

A Yes, sir. But it has been expanded, of course, on ad-



ministrative approval and by stages which would tend to, in your more permeable streaks, allow different volumes of migrated oil to cover different distances and so on and so forth.

Q Well, now, Mr. Vick, according to the plan for the water injection wells or the pattern for those wells, the 36-10 Well in the Caprock-Queen Unit No. 1, would be a water injection well?

A Yes, sir.

Q Do you know what the status of that well is at the present time, whether it's a producing well or injection well?

A It's on injection, taking approximately three hundred barrels per day.

Q So this Exhibit actually should have a circle around that well?

A Yes, sir. It isn't that much up to date.

Q Now, in the application here, it states that this is the application of Ambassador for a special allowable on a temporary basis. Now, what is this temporary basis?

A Well, what we feel like would be pending completion of this complete list of negotiations that we are currently under way on. We have had an indication from Great Western Drilling Company that they wouldn't consider re-negotiating the Pebble Unit formula at this time. We have also made the proposal to the operators of Caprock-Queen No. 2, the working interest owners, to take over operation of this tract, and share in the proceeds to a degree of the oil produced from the State "C" Well, and charge an operating cost,



and so on, comparable to fieldwide averages, in order to allow this well to be included in a water flooding program, and as such, be carried under a,normal operating conditions, water flooding conditions.

Q Do you have an estimate as to how much oil this State "C" No. 1 will produce?

A No, sir, I don't have, accurately. As I stated before, I don't believe that there is any accurate way of knowing, other than by present indicated performance, as far as what the actual saturation conditions are under any of these tracts.

Q Do you think the well is going to produce enough oil to pay for the cost of drilling a well similar to this?

A Well, that remains to be seen from our standpoint. That was one of the conditions,as mentioned earlier, concerning this State in tract, in Section 36 there, that the economics looked very close to us.

Q This well, actually, is no different than the forty-acre tract directly north of your 29-1, is it, as far as an expected recovery or reserve?

A As far as potential?

Q Yes, sir.

A Well, for me, presently, it has much more potential. The tract to the north would simply have to be drilled and await conditions similar to what this well is.

Q It has more potential because there is a well there?



A Yes, sir.

Q Do you know whether a well has been drilled over here on this lease, two offsetting leases, to the west, labeled Delfern on your Exhibit?

A I'm not sure of that. One indication was that they had drilled it, and in checking through Great Western's final letter concerning the Pebble Unit that we received from them, it hadn't been as yet drilled. It was staked and was a possible location.

Q Now, the injection pattern for this Pebble Queen Unit would call for an injection well directly west of your well; is that correct?

A The proposed injection wells, if I have them right, I believe are circled in orange on Pebble Unit, which would fit into the corresponding pattern on the Caprock Unit No. 2.

Q And then the well directly west of yours would eventually become an injection well?

A Yes, sir.

Q So, any oil that would happen to move past your well would ultimately be run back by you the second time, wouldn't it, on this Richardson and Baswell?

A Pushed north into the undeveloped area, if the reservoir extends up that far, and actually be lost unless producing wells were drilled in that area.

Q Well, now, Mr. Vick, you have requested an allowable on a temporary basis. What actually do you predicate this request on?



The matter of correlative rights, or waste, or just what?

A Well, both on correlative rights and on waste.

Q Would you define the manner in which correlative rights are concerned?

A Well, we feel like, as I stated earlier, the only true indication to me of what actually exists in this area underneath these producing wells is the ability of the oil to come out of the ground to be produced. And, as such, our well is currently producing seventy-five to eighty barrels, and which we feel is under our tract, and we presently have a right to recover same. If we aren't allowed to recover same, certainly a portion of it is going to be lost, and lost to us forever.

Q Now, how do you define the matter of waste in this regard?

A Well, if the area to the north and northwest is never drilled, certainly the oil is going to be trapped up there, and it would depend on how much of a gamble that some operator would want to take on drilling a well which would cost in the neighborhood of thirty to thirty-five thousand dollars to see how much oil he could actually recover; how much was lost up there.

QUESTIONS BY MR. PAYNE:

Q Mr. Vick, in view of the pending application, do you think that if the Commission saw fit to grant your application, that a ninety-day period would be reasonable, so you can decide what to do with this well?



A Yes, sir, I believe so.

MR. NUTTER: Let's take a fifteen-minute recess.

(Short recess)

MR. NUTTER: The hearing will come to order, please. Mr. Jennings, did you have anything further?

MR. JENNINGS: I have a couple more questions.

REDIRECT EXAMINATION

BY MR. JENNINGS:

Q Mr. Vick, has your company evaluated the economics of drilling additional wells on the "N" location--an additional well on the "N" location, which is immediately north of the 29-1 Well?

A Yes, sir. I believe that was commented on earlier. We have had that on the program for quite some time, but the present status of it is that we feel that the economics of drilling that tract and placing it possibly into the Pebble Unit, that the economics would be so tight that it's too much of a gamble right now.

Q I believe it was your testimony that a well on that location would cost in excess of thirty thousand dollars?

A Yes, sir. From thirty to thirty-five thousand dollars, yes, sir.

Q Mr. Vick, returning to the question of waste, if that oil that is now under the A.O.C. State lease, in the area marked in red, is pushed to the north or to the northwest, will it be possible to recover that oil?



A Well, if someone should drill a well in the undeveloped portion up there, they would possibly recover some of it. I would like to comment a little bit further on that. Since our interpretation of this area, or the majority of the area, was that it was originally a dry gas cap, and the gas was blown down in the process of producing the field, and as such, being dry, which it is resaturated, you are going to, in this saturation process, you will naturally lose, oh, from twenty to twenty-five percent or so of your oil saturation, which will go to saturate this dry sand, and actually will never be recoverable. So, you might recover some oil if there is more than that pushed out there; you would recover some on a water flood or a primary operation, but the whole area, if it is resaturated, you are going to lose an ultimate of twenty to twenty-five percent of your oil that is pushed out there.

Q Well, would that be a considerable amount of oil in barrels?

A Yes, sir. That amounts to, under a normal primary recovery mechanism, an average cumulative primary production from a field or a well, roughly twenty percent.

Q I believe you have testified that you cannot estimate the amount of recoverable oil now under that location.

A No, sir. We have no way of knowing, other than the indicated capability of the well at the present time.

Q Mr. Vick, in your opinion, was this entire area lying northwest of the Caprock-Queen No. 2 Unit originally a gas cap?



A Yes, sir. My interpretation of it was that the majority of it was a gas cap, as evidenced by the low primary recoveries and high gas produced volumes from these edge wells that were bordering the old, originally the old portion of the pool.

Q Is the pay pinching out as it goes in the northwesterly direction, or do you know?

A Well, it would naturally be a frosty type pinch out some place along here, since the area was a gas cap and had to be contained in some form or fashion. It's usual for this type of reservoir to be pinched out.

Q If that oil is pushed out to the northwest, it will be gone forever, a good portion of it?

A A very good portion of it, yes, sir. And that condition tied in with the tight economics, to begin with, would certainly increase the gamble of an operator, a prudent operator stepping out like that in developing.

Q Under the existing facts, as you now know them, would you drill a northwest diagonal offset to this location, if you owned it?

A MR. NUTTER: A northwest diagonal?

MR. JENNINGS: Yes, sir. To the State "C?"

A Great Western Drilling Company now has the lease on that property. I believe on most; the east half of Section 35. And in discussing with Mr. Wilson, with their company, the possibility of a farmout, did transpire--I mean in the conversation, but as far as recommendations, from an engineering standpoint, from our



Company to our management, we would want to wait a little bit and see performancewise on the other wells and evaluate from that aspect as to any stepout.

MR. JENNINGS: I believe that's all.

MR. NUTTER: Are there any further questions of Mr. Vick?

MR. PAYNE: One question.

RECROSS-EXAMINATION

BY MR. PAYNE:

Q Mr. Vick, how soon would you anticipate that the well in question here, State "C" No. 1, would go to a hundred percent water?

A Well, Mr. Payne, I have no way of making any type of a real educated guess on the thing. Since it isn't a completely enclosed pattern, and you have definitely pressure differentials from one side of the lease to the other, and so on, we don't know what effect we are getting from the drive from 29-1. So, it would just depend on the next month, say, the next month's performance. Normally, you would expect a well, when you received a response under the most efficient type operation, you peak in one day and start down, and your water production normally starts at approximately that peak point. But you certainly have variations from that.

Q Well, now, if the Commission sees fit to grant your application here on a temporary basis of, say, ninety days, and it wouldn't be Ambassador's intention to discontinue negotiations regarding this tract, would it?

A No, sir. We feel that whatever transpires in the way of



these negotiations, we definitely, as a prudent operator, can realize that--to have complete backup around the well, the ultimate recovery is going to be possibly three-fold times what it would be or four-fold what it would normally be under the present conditions. So, we are certainly going to strive to do everything we can, either to sell the tract to someone that could possibly operate it more efficiently or to participate in flooding programs of both Pebble and Caprock Unit No. 2, to make the recovery--what we would consider ultimate.

QUESTIONS BY MR. NUTTER:

Q Well, as a prospective member of the Pebble-Queen Unit, Mr. Vick, do you know what the plans are for water injection in the well directly south of the subject well?

A Well, Mr. Wilson stated yesterday in our conversation with him that--

MR. NUTTER: This is Mr. Wilson?

A --with Great Western Drilling Company, that they are currently drilling their supply well, and his estimate was approximately a month and a half for water injection to commence.

Q In other words, perhaps within forty-five days we will have water going into the well directly south?

A Yes, sir.

MR. PAYNE: And it would be considerably longer than that before the well on the Richardson and Bass tract, directly to the west, would even be put on water injection, I presume ultimately it



would, in view of the pattern?

A Well, that would certainly be covered in the negotiations along the point of our participating in cost and so on. We would certainly expect them to take the same attitude as far as ultimate recovery that we would have. And since the State "C" Well is currently responding, it would be--we think, to everyone's advantage, to step out for an injection well.

Q (By Mr. Nutter) Mr. Vick, would you be willing to keep the Commission advised as to the progress of the negotiations for this forty-acre tract?

A Yes, sir, we certainly would.

MR. NUTTER: Does anyone else have any questions of Mr. Vick?

MR. CHRISTY: Sim Christy of Hervey, Dow and Hinkle, Great Western Drilling Company, the operator of the Pebble-Queen Unit, which has been mentioned in the testimony here this morning. We have one or two questions from the witness.

MR. NUTTER: You may proceed.

QUESTIONS BY MR. CHRISTY:

Q Mr. Vick, who purchases the oil from the "C" Well involved here?

A Service Pipeline.

Q Service Pipeline?

A Yes, sir.

Q Does Indiana purchase any of it?



A I believe it's through the same facility. Probably Indiana is the purchaser.

Q What was your January 1960 runs on the "C" Well? What was the production for January of 1960?

A None.

Q None. Now, Mr. Vick, are you aware that the Pebble-Queen Unit was in effect April 1, 1960?

A Yes, sir, we are.

Q And I assume you are further familiar with the fact that that unit provides that at least ninety percent of the working interest owners, the operators must agree to the terms of the unit before it can become effective?

A Yes, sir.

Q You stated that Ambassador hadn't yet decided to join the Pebble-Queen Unit. As a matter of fact, Mr. Vick, weren't you at the initial meetings in connection with this Pebble-Queen Unit held last spring?

A I was at several. I didn't attend all of them. I was at several.

Q I believe your Mr. Riley of Ambassador attended the engineering meetings, didn't--

A He attended some, yes, sir.

Q And these meetings occurred during the spring and summer of '59?

A Yes, sir.



Q And into the early fall?

A Yes.

Q And now you said that Ambassador decided not yet to join the Pebble-Queen. When was this decision made?

A Well, it has been made recently in view of the, I'd say, the past three months' operation, monthly operation on the performance of the producing wells in your Pebble Unit.

Q Up until this recent performance, was there anything wrong with the unit agreement to Ambassador's viewpoint?

A Yes, sir, from an engineering standpoint. We have always considered that it wasn't basically a sound formula, but we had other considerations in mind when we were verbally going along with the actual forming of the Pebble Unit and pushing as fast as we could the actual commencement of injection operations on the Pebble Unit.

Q Did you find there was something wrong with the formula, Mr. Vick?

A Yes, sir.

Q Was there something wrong with the formula or the way it worked out for Ambassador, the percentage?

A Well, it's actually one and the same, but basically, from an engineering standpoint, I don't believe that a reputable engineer could, knowing all the facts that we had at hand, recommend to his management that they accept the conditions of that formula, the factors in it.



Q Does your Ambassador North Caprock-Queen Unit No. 2 have a provision for expansion to include other areas?

A Yes, sir.

Q But you have not joined in either, in this "C" Well?

A We have attempted to.

Q You have attempted to?

A Yes, sir.

Q What is your difficulty there?

A Well, the Caprock Unit No. 2 has in the unit agreement that one hundred percent of the working interest owners is required for approval of additions or deletions, and so on to the unit area after the six months', initial six months' period. We contacted Graridge on the proposal to, as one of the working interest owners being in Caprock Unit No. 2, and the proposal to let Caprock Unit No. 2 take over operations of the State "C" lease and operate that for a portion of the ultimate profit and proceeds from the State "C" lease. Graridge indicated that they could possibly go along. We then contacted Great Western Drilling Company and received an indication that they didn't feel that they could go along on it. So, we couldn't actually come, as operator of the Caprock Unit No. 2, we couldn't come to the Commission with a proposal, not having a hundred percent approval of the working interest.

Q Did you contact any of the other working interest owners in the No. 2 Unit?

A No, sir, we didn't; after we received one refusal.



Q Do you anticipate any change in that viewpoint?

A To my knowledge, no.

Q And you are unwilling to accept the formula in the Pebble, and you can't get into the Ambassador No. 2. Now, what is there that you can do if the Commission grants you a temporary relief? What else can you do?

A Well, as stated earlier in our testimony here, we have, in discussing the matter with Mr. Wilson and Great Western, offered to receive a purchase offer on this tract from Great Western, either individually or as operator of the Pebble Unit, based on their interpretation of present net worth of the tract. As yet, we haven't received that offer, but we will definitely follow through on it, and if that negotiation can be carried out, we would definitely be agreeable to recommending to our management to sell that tract for what we would consider a fair sales price. And the other point mentioned was the possibility of additional development to the north and to the northeast, and with the hope of combining this State "C" lease with the additional tract to form a small unit or a participating block and sharing in water flood facility; either purchasing water from one of the units or under that type of an arrangement.

Q So that what you want this temporary time for is to either (1) have someone offer to buy the tract or (2) form a small unit up to the north?

A Yes, sir. Or possibly be able to--we will continue the

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negotiations relative to Caprock Unit No. 2 and Unit No. 1 and Pebble Unit relative to--if they can change their mind or convince us one way or the other.

Q Of course, that is now an effective unit, a binding contract with which you would have to have a hundred percent to get out of the terms of the contract in the Pebble-Queen, to change the formula, which is your objection to it?

A Yes, sir.

Q I believe it's axiomatic. Now, this unit you foresee might be formed up to the north. Did I understand you correctly in answer to Mr. Jennings, that at the moment, you cannot see that it is economically feasible to try a conditional well on your "N" lease?

A That's correct.

Q And, as I understood you, on the tract to the northwest of the State "C" lease, which is incidentally a Delfern tract, you don't see where that is economically feasible at this time?

A Not at this moment, no, sir.

Q And I believe you said that the negotiations for the Pebble-Queen went on from last spring until it was effective in April?

A Yes, sir.

Q Now, do you anticipate that such a unit could be formed in a period of sixty or ninety days, the type of unit that you just mentioned, to the north or northwest?



A If the wells were developed in there in that time, I can see no reason for that small a group of people to not be able to get together on an equitable formula.

Q You would have Delfern and Great Western and Richardson and Bass and Malco and yourself, and you believe that the wells could be drilled, completed and a unit agreement agreed to in sixty or ninety days; is that correct, sir?

A Yes, sir. It would be--that isn't Malco. I believe Gra-ridge has that.

Q I see. Now, did I understand that you are seeking a capacity, a lower allowable here, Mr. Vick, or are you seeking an allowable equal to seventy-five barrels or eighty barrels? What are you seeking? I'm not clear.

A Well, we are seeking a temporary relief, but as stated in the testimony, it was our opinion that the approximate peak production from this well had been reached. And from all indications, that would be sufficient.

Q Seventy-five to eighty barrels?

A Yes, sir.

Q And you don't anticipate any substantial increase in the productivity of this "C" Well?

A No, sir, I don't believe it can.

Q Now, Mr. Payne suggested the figure of ninety days, but I don't believe you ever mentioned anything on your direct. What figure do you anticipate? What is temporary to you?



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A Well, the ninety days would be sufficient, I'm sure.

Q Now, would sixty days be sufficient?

A Well, I'm not certain. The ninety days would give time enough, if the other negotiations fell down, to obtain more performance data on this immediate area and possibly in sixty days we would start drilling our "N" lease, or in thirty days. It's just a matter of evaluation of the performance as it transpires from day to day.

Q So, thirty or sixty might be sufficient; we don't know?

A It could be.

MR. CHRISTY: Thank you.

MR. NUTTER: Any further questions of Mr. Vick? You may be excused.

(Witness excused)

MR. NUTTER: Do you have anything further to offer?

MR. JENNINGS: We have nothing further to offer, but we would like to offer into evidence Applicant's Exhibit No. 1, which is afloat here.

MR. NUTTER: Ambassador's Exhibit 1 will be admitted.

(Thereupon, Ambassador's Exhibit No. 1 was received in evidence.)

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

MR. CHRISTY: We would like to make a statement for Great Western Drilling Company. Mr. Examiner, while we can sympathize with Ambassador in its application here today, Great Western, for



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itself, and as the operator of the Pebble-Queen Unit, to the west, representing all of the operators in that area, feel that the granting of this application, without a reconsideration of Great Western's application in Case 1914, would violate the correlative rights of the various operators in the Pebble-Queen Unit, in that substantially the same situation exists with respect to this Ambassador "C" Well as exists with several of the Pebble-Queen Unit wells in this general area. The testimony here today reflects, to my mind, that Ambassador has been given an opportunity to join the Pebble-Queen Unit, which has been approved by ninety percent of the operators. And under the--According to ninety percent of the operators, they would receive their fair share of production. Now, of course, the mere fact that the State "C" Well has the ability to produce more than the allowable is no reason to grant the relief. That seems to be the main theme of the testimony here today, as I have heard it. It appears to us that the protection of correlative rights of all of the interested parties in this area dictates that this application should either be denied or that similar allowable relief should be granted to the Pebble-Queen Unit wells bordering this North Caprock No. 2 Unit. That's all.

MR. JENNINGS: Just a short statement. We feel strongly that unless some relief is granted in this case, that this oil will be pushed to the northwest, and possibly never be recovered, and certainly will result in waste. And if we are not allowed at this time to produce the well in excess of the ordinary allowable, that



within a very short time the water front will hit the well, and that we will certainly be deprived of-- Our correlative rights would be impaired in that we would not be allowed to recover our just and equitable share of the oil in place under this tract.

And just in closing, I would like to point out that there is certainly precedent for action such as this, as it's my understanding that the Commission in two prior instances, in Cases No. 1704 and 1705, in the same general area, I believe it was Cities Service area, did grant relief such as this, and allowed single wells which were in the area to produce in excess of the normal allowable, even though the wells in question weren't included in the unit.

MR. NUTTER: Who were the applicants in those cases, Mr. Jennings?

MR. JENNINGS: I believe one was Cities Service and Penrose. The orders were entered last July.

MR. NUTTER: That was prior to the issuance of--

MR. JENNINGS: Of the water Rule 701.

MR. NUTTER: Yes.

MR. JENNINGS: That's all we have.

MR. NUTTER: Anyone else have anything for Case No. 1933? Take the case under advisement. The witness has been excused.



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1. Kenneth T. Tomko
Notary Public

Jan 7, 1964

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
_____ EXHIBIT NO. _____
CASE NO. _____

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 1933,
heard by me on 4-6, 1960.

_____, Examiner
New Mexico Oil Conservation Commission

