

V. L. WIEDERKEHR, called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. VERITY:

Q Will you please state your name and occupation?

A V. L. Wiederkehr, W-i-e-d-e-r-k-e-h-r. I'm employed as assistant superintendent of Southwest Production Company.

Q Mr. Wiederkehr, have you testified before this Commission heretofore as an expert with regard to oil and gas production and reservoirs?

A Yes, sir.

Q Are you familiar with the condition in Section 16, of Township 29 North, Range 14 West, San Juan County, New Mexico?

A Yes, I am.'

Q Particularly the Southeast Quarter of this Section?

A Yes.

Q Mr. Wiederkehr, heretofore was Southwest Production Company granted an application to establish two non-standard production units for the production of oil from the Gallup formation underlying a portion of the Southeast Quarter of Section 16?

A Yes, at an Examiner Hearing, I believe on the 28th of June, 1961, we requested two non-standard oil proration units and they were granted.



(Whereupon, Applicant's Exhibits
1 and 2 were marked for
identification)

Q I hand you what the reporter has marked as Plaintiff's
Exhibit Number 1, is that the Order which was issued by the
Commission which you just referred to?

A Yes, that is the Order R Number 2030.

Q As to the acreage in the Southeast Quarter of Section
16, do you know whether or not it was placed in a non-standard
unit by Order R-1957 of the Commission?

A The acreage south of the river you are speaking of?

Q Yes.

A In the Southeast Quarter?

Q Yes.

A That acreage belongs to Pan American and was given a
non-standard unit. I don't recall the Order number.

MR. VERITY: We offer in evidence Order Number R-1957.

Q The Order R-2030 placed everything north of the center
of the river into two equal units, is this correct?

A That's right.

Q Is all that acreage underlain by effective pay, in
your opinion?

A Yes, I do.

(Whereupon, Applicant's Exhibits
3 and 4 marked for identifi-
cation)

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Q Mr. Wiederkehr, I hand you what the reporter has marked as Exhibit Number 3. Will you tell us what it is, please?

A This is an isopach that I prepared for the previous hearing I had spoken on back the 28th of June, in which I suggested we would have five feet of pay in a proposed well. We drilled the well and electric log bore out that five feet of pay with a cutoff of 50 ohms on the induction log.

Q Does Exhibit 3 show that all the North Half of the Southeast quarter of Section 16 is underlain with formation from the Gallup?

A From that isopach map which prepared at that time, it shows to all be productive, and the well that we drilled fell right in line.

Q So that it was confirmed?

A Yes.

MR. VERITY: We offer in evidence Exhibit Number 3.

Q Mr. Wiederkehr, is it feasible to drill a well on the east 56-acre unit that was established by Order R-2030?

A At the time that we asked for this Order, we thought that additional well would be economical. We drilled the well known as the Fouts-state No. 1 after receiving this Order, and was completed the 22nd of October. The initial potential was very good on the well, but the production has declined rapidly, but we feel at this time that an additional well in this second



56-odd acre non-standard unit would not be economical.

Q I direct your attention now to Exhibit Number 4, will you please tell us what it is?

A It's a map of the Southeast quarter of Section 15, Township 29 North, Range 14 West, identifying outline in red, the acreage that Southwest Production Company owns. It also identifies the present acreage dedicated to this Foutz-State Well in green and it identifies the acreage that we request to now dedicate to the Foutz-State in red hashmarks.

Q Who owns all of the minerals in the lands lying north of the center of the river in the Southeast Quarter of 15?

A It is a state lease. The state owns the minerals.

Q So that there's one common mineral ownership?

A Correct.

Q Do you know whether or not it's all under the same lease?

A My understanding is that it is all the same state lease.

Q Now, the well that is presently located in the Northwest Quarter of the Southeast Quarter is currently producing?

A That is correct.

Q In your opinion, will it drain oil from all of the North Half of the Southeast Quarter of Section 16 lying north of the center of the river?

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A Yes, I think it will.

MR. VERITY: We offer Exhibit Number 1 and also Exhibit Number 4 in evidence. That's all Excuse me, one other question.

Q Mr. Wiederkehr, what acreage is in the unit that you propose to dedicate to this well which is all of the North Half of the Southeast lying north of the center line of the San Juan River?

A This would comprise some 73.89 acres, being the Northwest Quarter of the Southeast Quarter, and the Northwest of the Southeast, that is, all of the Northwest of the Southeast lying north of the center line of the San Juan River.

Q Would this be everything in the North Half of the Southeast except that part that was allowed to Pan American Petroleum Corporation in the non-standard unit granted by Order R-1957?

A No, there would be some remaining acreage known as Lot 7, I believe.

Q Let me repeat my question. Does your proposed unit include everything in the North Half of the Southeast Quarter except the acreage that was allowed to Pan American Petroleum Corporation in the non-standard unit granted in Order R Number 1957?

A That is correct. I beg your pardon, I misunderstood your question.

MR. UTZ: Are there objections to the entrance of

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Exhibits 1 through 4, and you offered your Exhibit in Case 2323 in evidence in this case, also?

MR. VERITY: Yes, we have.

MR. UTZ: That was Exhibit Number 2 in this case?

MR. VERITY: Exhibit Number 2 in this case. I don't know what it was in the other case.

MR. MORRIS: It's marked as 3 in this case.

MR. VERITY: 3 in this case and it apparantly was 2 in the other.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Wiederkehr, the well you drilled in these, well, it would be the west tract of the non-standard unit in Case 2323 was known as the Foutz-State No. 1?

A Yes, sir, that's correct.

Q I believe you testified that it had five feet of net pay on a 50 ohmm cutoff??

A A 50 ohmm cutoff on the induction log, there was five feet of pay, yes.

Q Do you know what that well potentialled for?

A Yes, the well potentialled for 92 barrels after recovering the load oil, the frac oil.

Q Do you know what last month's production was?

A Yes, sir. For the month of March the production was

535 barrels.



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Q That's just about 21 barrels a day?

A I calculated 22.3.

Q Did you have any control other than this well for the four foot and two foot curve contoured on your Exhibit Number 37

A I don't have a copy of that with me, but there was a Pan American Navajo, E-S, I believe, to the southeast that probably also had some four feet of pay. I think I probably used that as part of the control, and a well that we had drilled we called the Malco state No. 1 in this same Section 15, I no doubt used it as control on the other end.

Q Do you recall where that well was located?

A Malco state would be in the southwest quarter, probably in the Northeast of the Southwest. It will be on that map you are looking at if you can find it.

Q I think this is it over in the southwest of Section 15.

A It would be in the Northeast of the Southwest, yes, sir.

Q Well, that wouldn't contribute much to your control on the two and four foot contours, would it?

A Well, you'll just have to assume contour interval on out where you are lacking control.

Q So, actually there's some question as to whether there's any pay under the 40-acre tract, which consists of the Northeast of the Southwest of the unit requested here?



A You might say there's some question. There's certainly no information to deny this isopach that I worked up on it.

Q The reason you didn't want to drill the other well was because you felt that you had confirmed this five and six foot contour on this map, and you felt like you could get another well just like it?

A Well, the sand was there, the production just didn't hold as well as we had anticipated, as shown by the initial potential which it was very satisfactory, but the production declined rapidly; and even assuming that we would have the same five or six feet of pay in this second well that we might have drilled on the east unit, we called it, with a decline in production, we felt that second well now would probably not be economical.

Q At this time is it not your intention to dedicate the the acreage in Lot 7, well, I'll have to put it in another way, the acreage immediately South of the proposed unit and north of the center line of the river in the Southeast Quarter of Section 15?

A It was not our proposal to put this acreage in that unit although we would be happy to put it in the unit if the Commission was agreeable. We asked for something less than a standard unit in size rather than ask for something more than

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a standard unit in size.

Q Actually, do you think this well will even come near producing a normal unit allowable for, it is a 73-acre tract?

A At this time, it will not. We feel that possible in some secondary recovery operations our allowable might be useful to us.

MR. UTZ: Are there any other questions pertaining to Exhibit 3?

MR. VERITY: I have a question on redirect.

REDIRECT EXAMINATION

BY MR. VERITY:

Q Mr. Wiederkehr, the projection that you have made on your isopach map, which is Exhibit Number 3, is that a normal conclusion that would be made from the information that is available?

A It appears very normal to me, comparing the contour interval there with the rest of the map where there is control, it's comparable.

Q Actually, any isopach map that you draw contains similar conclusions, doesn't it?

A For lack of control you have to assume something.

Q You have to extrapolate the areas where you don't have a hole in the ground, right?

A Right.



MR. VERITY: That's all.

REXCROSS EXAMINATION

BY MR. UTZ:

Q But they can be extrapolated narrow and wide, can they not?

A That's right.

MR. UTZ: Without objection, Exhibits 1 through 4 will be entered into the record in this case. Are there other questions of the witness? The witness may be excused.

(Witness excused)

MR. UTZ: Are there any statements in this case?

MR. VERITY: Your Honor, I would like to point out that all we're asking in this case is what we were initially entitled to prior to the time that we felt --

MR. UTZ: Providing you got a well.

MR. VERITY: -- at the time that we asked for two 55-acre units. At that time we thought it would be economically feasible to drill two wells. The initial potential appeared to confirm our initial conclusion, but many of the wells in the pool at this juncture have fallen very sharply and this has happened here and it makes the second well just plain not feasible. I would also like to call to your attention the fact that Pan American thought that a well was feasible in that area south of the river and got this Order Number 1957, but that that

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Well has never been drilled because of subsequent developments in the pool falling off. So, we feel that we're entitled to the normal customary 80-acre unit. Now in the previous Order that part south of the river has been taken out of it, so we don't ask for that 8 plus acres, at least the 73.89 hundredths acres in what is a normal 80 acre unit that we would be entitled to here, and that is the reason that we make this application and feel that it should be granted to us.

MR. UEZ: Any other statements? The case will be taken under advisement.

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