

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
February 5, 1969

EXAMINER HEARING

IN THE MATTER OF:)

Application of Tamarack Petroleum)
Company, Inc., for salt water) Case No. 4041
injection, Lea County, New Mexico.)

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

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MR. NUTTER: Call Case 4041.

MR. HATCH: Case 4041. Application of Tamarack Petroleum Company, Inc. for salt water injection, Lea County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin, Kellahin and Fox, Santa Fe, appearing for the applicant. We have one witness I would like to have sworn.

(Whereupon, Applicant's Exhibits 1 through 4 were marked for identification.)

(Witness sworn.)

ALBERT METCALFE

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q Would you state your name, please?

A Albert Metcalfe.

Q By whom are you employed and in what position, Mr. Metcalfe?

A Tamarack Petroleum Company as Vice-President.

Q And where are you located?

A Midland.

Q Are you a petroleum engineer?

A Yes, sir.

Q Now, have you testified before the Oil Conservation Commission and made your qualifications a matter of record?

A Yes, I have.

Q Are the witnesses' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (By Mr. Kellahin) Mr. Metcalfe, are you familiar with the application of Tamarack Petroleum Company in Case 4041?

A I am.

Q Briefly, what is proposed by Tamarack in this application?

A We are asking Commission's approval to inject produced salt water from 22 wells located in the northeast portion of the Pearl Queen field into the Queen formation in our Texaco-Moran No. 2 Well.

Q Where is that well located?

A It's located in the southeast quarter of the northeast quarter of Section 22, 19 South, Range 35 East.

Q Now, referring to what has been marked as Exhibit No. 1, would you identify that Exhibit, please?

A Which one is one?

Q This one right here.

A That's our Conservation Commission Form C108,
our application to inject water into a porous formation.

Q Now, this is the subject well, is it not?

A It is.

Q What interval will you inject the water into?

A We propose to inject into the Queens Sand, into
the Sands we call No. 5 and No. 7, through perforations
4954 to 58, in the No. 5 Sand, and perforations 5027 to
29, in the No. 7 Sand.

Q Now, what volumes of water will you be injecting
into this well?

A We will be injecting from 500 to 700 barrels
a day.

Q And this is all produced water from other leases
operated by Tamarack?

A That's true.

Q It will also include water produced on this
particular lease, will it not?

A Yes, sir, it will.

Q There is another well on this lease?

A That's right.

Q Now, attached to Exhibit No. 1 are some water analyses. Would you identify and discuss those, please?

A Well, these are analyses of other wells in the immediate vicinity of produced Queen Sand water.

Q Now, this is the same type of water you will be injecting into the Queen Sand?

A This is identical water that we will be injecting.

Q And it is produced from the Queen and you will inject into the Queen?

A That's correct.

Q And you have no reason to believe that it will not be compatible, is that correct?

A That's correct.

Q Now, what is the present status of the injection well, Mr. Metcalfe?

A The injection well is now off production. It hasn't produced oil in quite a while.

Q It's being prepared for injection in the event this Commission approves the application?

A That's correct.

Q Now, referring to what has been marked as Exhibit No. 2, would you identify that Exhibit, please?

A Exhibit 2 is a map of the Pearl Queen field with

area of the field around this proposed injection well, the well shown by a color code. The wells in yellow are currently Queen Sand Injection Wells in Shell Oil Company's East Pearl Queen Unit. The wells in green are Queen Sand producing wells, and well shown in red is our proposed injection well.

Q Now, your well, then, is offset by a waterflood project operated by Shell, is that correct?

A That's correct.

Q It's in the same formation? It's in the Queen?

A That's correct.

Q Now, have you considered instituting a waterflood project for the wells operated by Tamarack?

A Yes, sir. We --

Q Now, what wells are those, first?

A They are the wells shown in -- all of the wells in the northeast portion of the field outside the Shell boundary.

Q They are all operated by Tamarack?

A No, sir. Three of the wells are operated by Texaco Oil and Gas, and 19 are operated by Tamarack. There are 22 wells in this proposed unit area.

Q Now, you have considered a waterflood project,

is this correct?

A We are actively in the process of unitizing this area now.

Q Would the proposed injection well as you have shown it on the Exhibit No. 2 fall into the pattern of the injection offsetting the Tamarack properties?

A Yes, sir. It will be an injection well in the unit.

Q It would be an injection well in the unit that you are going to form?

A That's correct.

Q Now, you don't have a line agreement with Shell, do you?

A No, sir.

Q Have you discussed one with them as yet?

A I have discussed -- told Shell what we propose to do and I have talked to Shell at great lengths about their project in this area, but I have never discussed any kind of agreement with them.

Q Now, Mr. Metcalfe, you say this would be an injection well when this has been unitized. For what reason are you asking for approval of water injection in the well at this time?

A Well, we purchased these 19 wells in this area in November for the specific purpose of unitizing a waterflood in the area. We aren't able to form our unit and get our flood in before we will have to take our water out of the surface pits as ordered by the Commission, so we are asking for permission to put this one well on injection to handle the produced water until such time as we can develop our complete pattern and waterflood the area.

Q Well, actually, rather than a water disposal well, this would in reality be a part of a projected waterflood program, wouldn't it?

A That's correct.

Q In effect, sort of a pilot project?

A Yes, sir.

Q Referring to what has been marked as Exhibit No. 3, would you identify that Exhibit, please?

A Exhibit 3 is a log of the proposed injection well with the -- it's a section of the Queen Sand log showing the various Queen Sand zones and perforations in this well.

Q Now, what are the zones that you would be injecting water into this well?

A Zone 5 and zone 7.

Q Now, the other zones are not presently open in the well bore, is that correct?

A That's correct. Zone 4 has produced in this well, but has been -- the perforations have been squeezed because they were watered out from Shell's injection.

Q In other words, you did have a response in this well from the offsetting waterflood, is that correct?

A Yes. In the past, but it's now watered out.

Q Now, referring to what has been marked as Exhibit No. 4, would you identify that Exhibit?

A Exhibit 4 is a diagrammatic sketch of the proposed installation in this well.

Q Now, you will be injecting your water through tubing and under a packer, is that correct?

A That's correct.

Q Will you use an internally coated tubing?

A Yes, sir.

Q Will you fill the casing tubing annulus with an inert fluid?

A Yes, sir.

Q Will you put a pressure gauge at the surface?

A We will.

Q This also reflects the perforated interval which has been squeezed, is that right?

A Yes, sir.

Q Can you give us some information, perhaps referring to Exhibit No. 1 as well, on the cementing program on the casing in this particular well?

A Well, the well has eight and five-eighths inch surface casing, set at 192 feet with cement circulated to the surface. It has four and a half inch production casing set at 5087 feet and cemented with 150 sacks of cement. The calculated top of the cement behind the four and a half inch casing is 3567 feet. The perforations in the No. 4 zone from 4838 to 42 were squeezed with 1500 sacks of cement to 6,000 pounds.

Q Mr. Metcalfe, what acreage is included in the lease upon which the well is located, the injection well?

A It's an 80-acre lease, which is the east half of the northeast quarter of Section 22, 1935.

Q And that comprises the entire lease? Is this a fee lease?

A Yes, sir.

Q Who is the owner of the surface?

A Mrs. Thelma Linam, L-i-n-a-m.

Q Have you contacted Mrs. Linam in regard to the conversion of this well for water disposal?

A I have.

Q Do you have her consent to use the well for that purpose?

A Yes, sir.

Q Are there any outstanding royalties on this well, other than the land owner royalty?

A Yes, sir.

Q Now, have you contacted a Mr. Hendrix or did Mr. Hendrix contact you in regard to the use of this well for salt water disposal?

A I contacted Mr. Hendrix.

Q Have you advised him that you are in the process of unitizing this property?

A I have.

Q And that this would be an injection well?

A Yes, sir.

Q Have you made any arrangements with Mr. Hendrix at this time as to the unitization of the tract?

A No, sir.

Q What interest does he own in this well?

A Mr. Hendrix owns ten mineral acres, which we have

under lease. His net interest in production from that lease now is a 1/64th royalty interest.

Q You have the entire working interest, is that correct?

A That's correct.

Q And his is a royalty and that's all?

A That's correct.

Q Are you proposing to unitize his interest or will he be given the opportunity to join the unit by the time you form it?

A Yes, he certainly will.

Q Have you drawn up the parameters or the basis of participation in the proposed unit as yet?

A Our parameter study is being made now by Libroch, Landers, Campbell, and Calloway in Midland, and I was advised yesterday they would be completed in approximately one week.

Q Did you advise Mr. Hendrix of this?

A I took Mr. Hendrix over to Libroch's office and let them -- had them show him their work.

MR. NUTTER: What date was that, please?

THE WITNESS: That was Monday of this week.

MR. NUTTER: That would have been the 2nd of

February?

THE WITNESS: Yes, sir.

MR. NUTTER: The reason I asked, we had a letter dated January 28 from him. That was after this letter was written?

THE WITNESS: Yes, sir.

MR. NUTTER: Okay. Go ahead.

Q (By Mr. Kellahin) Would the fact that you are converting this particular well to a salt water disposal or salt water injection at the present time, have any effect, in your opinion, on the ultimate recovery of oil, insofar as Mr. Hendrix is concerned?

A It will have none whatsoever. Our parameters have been cut off. The cut off date on our parameters was December the 1st, as far as any production that might affect the participation of the tract in the unit, so in my opinion, it would have no affect at all as to this tract's participation in the unit.

Q Whether you drove oil off the lease or not, would have no bearing on the ultimate recovery to Mr. Hendrix, upon the formation of the unit, is that correct?

A That's correct.

Q Now, you say there is one other operator in the

area in this that will be unitized. Who is that?

A Texaco Oil and Gas.

Q Have you contacted them in connection with your proposed unit?

A I have, and Texaco Oil and Gas are participating in the pre-unitization expenses.

Q And they are in agreement, then, on the parameters that are being prepared by Librock, is that correct?

A They are paying for their share of the work that is being done by Librock.

Q So, there is no problem insofar as that phase of the unit is concerned between you and other operators?

A None at all.

Q Were Exhibits 1 through 4 prepared by you or under your supervision?

A They were.

Q At this time, I would like to offer in evidence Exhibits 1 through 4, inclusive.

MR. NUTTER: Tamarack's Exhibits 1 through 4 will be admitted in evidence.

(Whereupon, Applicant's Exhibits 1 through 4 were offered and admitted in evidence.)

MR. KELLAHIN: That completes the presentation of our case, Mr. Nutter. I would say in all fairness that while Mr. Metcalfe has contacted Mr. Hendrix in connection with this matter subsequent to the receipt of the letter by the Commission and explained the matter to him, we feel that his interests are fully protected. At the same time, Mr. Mickey Cline, who is presently practicing law in Midland called me and they have not withdrawn their objection to it and I believe he indicated he was going to send a telegram to the Commission in regard to this application.

MR. NUTTER: Yes, sir. The record will show that we received the letter from Mr. Hendrix on January 29; it was dated January 28. We received a telegram from Mr. Michael Cline, attorney for Mr. Hendrix, on February -- I guess we received that today. I can't read the date it was stamped in. It was received by Western Union on February 4 at 6:27 PM. I presume it was received in this office at 8:33 this morning, February 5th.

CROSS EXAMINATION

BY MR. NUTTER:

Q Mr. Metcalfe, normally we just read these letters into the record at the conclusion of the case, but I

would like to bring out a couple of points that he notes here in his letter of January 28 and ask you about them, so I'll read this letter into the record at this time. This is the letter from Mr. Hendrix, dated January 28, addressed to the OCC. "Please refer to Case 4041 to be heard at the Examiner Hearing on February 5, 1969.

I am the owner of an undivided 1/8th mineral interest in and under the east half of the northeast quarter of Section 22, Township 19 South, Range 35 East, Lea County, New Mexico. As such, I have an economic interest in the Tamarack-Texaco-Moran Well No. 2 located in Unit H of Section 32. Based on a careful evaluation of Tamarack's proposed injection well on the operation and performance of Shell's offsetting East Peral Queen Unit, the respective perforated intervals of area wells and former operations by Earl G. Colten, it is my opinion that conversion of the No. 2 well alone and in its present condition to water disposal status will violate the correlative rights of all mineral owners under the subject lease and further will result in continued economic waste. Listed below are three reasons that my correlative rights will be violated if the NMOCC allows injection into the No. 2 well in its present condition: (1) The proposed injection having no backup

injection wells will simply push a majority of the oil and gas from subject lease to offsetting leases that are operated in part by Tamarack. While this would possibly not adversely affect Tamarack, the mineral interest owners under the lease would not receive their fair portion of the oil. This unjust situation could easily be remedied by full expansion of Shell's existing injection pattern to provide for injection wells in Unit P of Section 15 and Units D and L of Section 23, together with the subject well; (2) Shell Oil Company has provided nomenclature that identifies the various Queen formation zones. Correlative zones of porosity are open in the Shell flood that for some reason have not been perforated in the Tamarack wells; (3) it is quite possible that Tamarack no longer holds valid leases on the subject mineral interest. You will notice that no production was reported to the NMOCC during the months of June and July of 1968; possibly, the lease has expired, due to lack of production.

Due to violation of my correlative rights, I strongly oppose Tamarack's application as it now stands. However, (1) should Tamarack agree to expand the injecting pattern so as to prevent loss from the subject lease, and, (2) should they agree to perforate intervals in the No. 1

and 2 wells that are correlative with zones presently open in the Shell flood in which case a bona fide and valid waterflood would be in operation with the economic and correlative right of the mineral owners, as well as the working interest owners would be fully protected. I would certainly appreciate your consideration of my position and that of the other mineral owners when this case comes before you. Thank you very much. Please read this letter into the record, if possible." Okay. Now, Mr. Metcalfe, we will go back to this first point that he makes here, the proposed injection having no backup injection wells will simply push a majority of the oil and gas from the subject lease to offsetting leases. Now, there are injection wells to the northwest and to the southwest from your proposed well, is that correct, and also 2 locations to the south?

A That's correct.

Q Now, what is the average rate of injection into those wells, Mr. Metcalfe?

A I believe it's around 300 barrels a day per well.

Q About 300 barrels per day per well? And you are proposing to inject into your well from 500 to 700 barrels

a day?

A We are proposing that right now because that's the volume of produced salt water that we have to dispose of. When we have our unit expanded, we will probably cut this injection back to 300.

Q Now, the next point that he makes in his paragraph numbered 1, he says, "that this unjust situation could easily be remedied by expansion of Shell's existing pattern to provide for injection wells up there in the southeast southeast of 15, that would be that Cabot Carbin No. 2 Well, and the wells in D and 11 and L of 23." Would it be possible to put more than one well on injection at this time?

A No, sir, I think ~~not~~, until we can get our unit formed.

Q Can you put two disposal wells on operation at this time? I mean, we have a problem here that this royalty owner feels that if you are going to be putting water into the Texaco-Moran No. 2, you will be driving oil off the lease. Now, if you would convert your Cabot Carbin No. 2 to disposal, then you could reduce your injection rates from 500 to 700 barrels per day per well to approximately 250 to 350 barrels per day per well,

which would be comparable with the injection rates that Shell is using on its flood, and then you would have oil being pushed off the Moran lease, as well as being pushed onto the Moran lease, it would appear.

A Yes, sir. Actually, there's no reason that well couldn't be put on injection now. We don't have our injection pattern work completed on that and I don't know that that would ultimately be an injection well in our unit, that Cabot Carbin No. 2.

Q You don't necessarily plan to expand Shell's existing water injection pattern, then?

A Well, Mr. Examiner, I think there's one thing that I should clear up. While Shell is flooding the Queen zone and we are flooding the Queen zone, Shell's water injection, if you would refer to the log, is in zones 1 through 4, which are the only Queen Sand zones productive in Shell's unit. Now, zones 1, 2 and 3 are not productive anywhere in our unit area.

Q Zone 4 was productive at one time, but that's the one you have squeezed in the well, is that correct?

A That's correct. It's watered out now and squeezed. Now, zone 4 is productive in 3 wells in our unit area -- in 4 wells, excuse me. It's productive in

our Union State 1 and 2 in Section 15.

Q Okay. That has zone 4?

A Yes, sir. It's productive in our Texaco-Moran No. 2, which is our proposed injection well.

Q It was productive?

A It was at one time and it's presently producing in our Gulf State No. 1 in Section 23.

Q That's the one in L of 23?

A It's in the northwest of the southwest of 23.

Q And those are the only 4 wells that have open in them any of the 4 zones that Shell is flooding?

A That is correct.

Q And Shell is not flooding zones 5, 6 or 7 in any of their wells?

A No, sir.

Q And your flood will be limited to 5, 6 or 7 in all of your wells, with the possible exception that you may be flooding zone 4 in the two Union State Wells and the Gulf State Well, or do you know?

A We will probably have one -- flood inject into the 4 Sand in 1 well, which will be the Union State No. 2 in Section 15 and we'll inject into the 5 and 7 Sands, and the 6 Sand, where at present in all of the wells, so my

point is that while we can put injection wells to backup this into the 5 and 7 Sands to offset Shell's injection, actually we wouldn't be offsetting anything because they are not injecting into those zones.

Q So, when Mr. Hendrix makes the statement that this well wouldn't have any backup injection wells, it's really true that it won't have any backup on the east or on the west because there's no injection?

A It will have on the east when we expand our flood because --

Q Well, he means for the time being it won't have any backup?

A Right. But, it has no injection into these zones that we propose on the west now.

Q That's what I mean.

A That's correct.

Q There is no backup on the west at the present time and Shell's not injecting into it and there isn't any on the east because you are not going into it yet?

A And, there never will be.

Q On the west?

A On the west because this zone has never produced over there in those wells.

Q Is this because of the structural situation of the pool, Mr. Metcalfe?

A It's lithology. The zone is -- present could be correlated, but it's just too tight to produce in some areas.

Q So, you can almost say in effect, this is a separate pool that's outside of the Shell unit?

A With the exception of the four wells that we have mentioned that are in the four sand, that's correct.

Q Maybe we have answered all of his other questions; I don't know. Point No. 2, he talks about the nomenclature identifying these various floods. He says, " for some reason they have not been perforated in the Tamarack wells." I believe you just answered that and said they were so tight they wouldn't produce.

A It's been perforated in every well that it had a chance to produce in our wells, that's correct, and it did produce for a number of years in this proposed injection well, which is on his lease, but it's now watered out.

Q We won't go into Point No. 3 about the validity of the lease. Now, he agrees to not disagree should you agree to expand the existing pattern to prevent loss from the subject lease. Now, did you actually have a reply

to the reason that you couldn't put, say, a well in D or the No. 2 up in Section 15 in P there on disposal?

A No, sir, we can't. If that would be a requirement for the approval of injection into this well, we could. There's no reason why we can't.

Q Then, his No. 2, if you agree to perforate the intervals in the No. 1 and 2 wells that Shell is flooding -- well, you have already answered the question, as far as the zone 4 in the No. 2, and evidently zone 4 was not present in producing condition in the No. 1 or it would have been perforated at one time?

A That's correct.

Q And the No. 2 well, now, it did have a response from the flood?

A It did, yes.

Q That must have been in the fourth sand, then?

A Yes, sir.

Q And it finally watered out?

A Yes, sir. That was several years ago.

MR. NUTTER: Are there any other questions of Mr. Metcalfe?

MR. HATCH: I think perhaps the telegram should be read into the record, as well.

MR. NUTTER: I think so.

THE WITNESS: Mr. Examiner, I might make the point that I think that Mr. Hendrix or that the mineral owners in this tract probably are -- have a better chance to benefit from this because we will be flooding the 5 and 7 zones, which are presently open in the offset well to the north on their lease, and which should be the first well to respond to injection into this No. 2 well, so we are of the opinion that they will actually benefit from it and certainly they will benefit from it when we can ultimately expand our unit, which our present plans, it looks like now we should have it in by the end of the summer, I would say July or August.

MR. NUTTER: The entire flood, or will you start --

THE WITNESS: The entire flood. We will put it all in at once. We have had preliminary conferences with the State Land office and with the other operator and anticipate no longer than, oh, five month's delay in getting it in.

MR. NUTTER: I see. At this time, I will read this telegram into the record also, in case some other question comes up in the telegram. "It is respectively

requested that the following be made a part of the record in Docket 4-69, Case No. 4041. Mr. John H. Hendrix, a mineral interest owner under the east half of northeast of Section 22, Township 19 South, Range 35 East, Lea County, New Mexico, objects to the granting of Tamarack Petroleum's application for the use of well No. 2, Unit H for the disposal of water from adjoining lands and other leases in the area for the following reasons: (1) the disposal of salt water in the productive Queen formation utilizing one well without backup or a regular waterflood pattern and in the large volumes anticipated will result in the watering out of the productive interval under this tract, thereby incurring waste and denying Mr. Hendrix his fair share of the oil in place in violation of his correlative rights; (2) the granting of this application will permit applicant to bring off-lease water into the premises for disposal purposes, thereby sanctioning an unauthorized use of mineral estate, infringing Mr. Hendrix property rights." From Michael Cline, attorney for protestant, John H. Hendrix.

Mr. Kellahin, do you have anything to say regarding this correspondence and this discussion?

MR. KELLAHIN: No. The only thing I think he

does make an inference there that as a mineral owner he has certain rights as to whether they can or cannot inject water into the producing formation. I don't feel that other than the question or protection of correlative rights that the question, the right to inject as such, the ownership is what I am referring to, has any bearing on this particular case. I think it's pretty well established at least in the State of New Mexico that the surface owner is the one you deal with in regard to salt water disposal. Now, that's not to say that Mr. Hendrix doesn't have some rights; he certainly does, and they should be at the courthouse and not before the Commission, except for the fact that the Commission is enjoined with the duty of protecting correlative rights in all of its orders and this is a factor to be considered, but since the witness has testified as Mr. Hendrix requested that a full-scale flood be instituted for purpose of protecting the entire area, well, we are going to do this and the witness has testified by late summer it will be in.

MR. NUTTER: The thing that concerns me, here, and Mr. Hendrix may have a point, is that the large volumes that are going to be going into this. You've got 2 sands here. You've got 5 and 7 and you are going to have up

to 700 barrels a day going into those two sands for a period of five months, and Mr. Hendrix's attorney may have a point where he says that the large volumes anticipated will result in watering out of the productive interval under this tract. That's his fear, anyway.

MR. KELLAHIN: This may be true, but at the same time, the witness has testified that the basis for participation in the unit has already been arrived at that time and this particular tract would participate, whether it's watered out or not, on the basis it's already been established.

MR. NUTTER: The parameter that will be used for participation is based on primary production prior to this date?

THE WITNESS: Yes, sir. Our parameters now are tabulated and the production that is being considered has already been cut off.

Q (By Mr. Nutter) What was the cutoff date on it?

A December the 1st.

Q I see.

MR. HATCH: Let me ask something.

MR. KELLAHIN: So, if we assume the unit will go into operation, I think Mr. Hendrix is fully protected.

Now, if some hitch developed and he didn't get the unit formed and the waterflood in operation, that would be another matter, of course.

MR. HATCH: If Mr. Hendrix doesn't choose to join the unit, what?

THE WITNESS: Mr. Hendrix has such a small mineral interest that we would be able to qualify that tract for participation in the unit without him and just set his production aside.

MR. NUTTER: Now, you mentioned that he had a 1/64th royalty interest?

THE WITNESS: He owns one-eighth of one-eighth royalty, which is a 1/64th interest.

Q (By Mr. Nutter) Well, he says I am the owner of an undivided one-eighth mineral interest, so he's technically wrong; he's got one-eighth of one-eighth royalty?

A He owns one-eighth of the minerals, but we have his minerals under lease.

Q He had ten mineral acres under the 80?

A That's correct.

Q You've got the working interest under lease?

A Yes, sir.

Q So, he's got the royalty under ten mineral acres in this 80 or one-eighth of one-eighth --

A Yes, sir.

Q -- or one net 64th of the 80-acre tract?

A That's correct.

Q Well, it's not only, Mr. Kellahin, that I am concerned about Mr. Hendrix's interest here, I am just wondering if possibly injection of these large volumes into the one well during a five or six month period might throw the thing completely out of kilter and get it out of balance so that balance couldn't be restored. It would seem more reasonable to have 2 wells on injection and disposal, dividing this up.

MR. KELLAHIN: Let's go off the record.

(Whereupon, an off the record discussion was held.)

MR. NUTTER: Mr. Metcalfe, in the interest of not throwing a potential waterflood completely out of balance while the area is being unitized and flood authorized and put into effect, would it be agreeable with Tamarack if the Commission order approving the use of the Texaco-Moran Well No. 2 for salt water disposal, limited to disposal at the volumes proposed being 500 to 700 barrels per day through a 60-day period, during which time

Tamarack could make a study and determine which of another well in its proposed waterflood could be placed on water disposal in order that the rates of disposal into any one well could be kept at a lesser volume than the proposed 5 to 700 barrels per day?

THE WITNESS: Yes, sir, that would be agreeable. We would agree to do that.

Q (By Mr. Nutter) And, you could in a 60-day period determine the use of another well which would be suitable and which would ultimately be a water injection well on your pattern?

A Yes, sir, we could.

MR. NUTTER: Are there any further questions of Mr. Metcalfe? He may be excused. Do you have anything further, Mr. Kellahin?

MR. KELLAHIN: No, I don't have.

MR. NUTTER: Does anyone have anything they wish to offer in Case 4041? If there's nothing further in Case 4041, we will take the case under advisement. We will recess the hearing until 1:30.

I N D E X

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Wanda Buss
COURT REPORTER

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