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1	NEW MEXICO OIL CONS Santa Fe,	New Mexico	MMISSION		
3	Januar	y 7, 1976			
4	EXAMINE	R HEARING			
5					
6	IN THE MATTER OF:		ý		
7	Application of Burk Royal for statutory unitization)	CASE 5596	
8	County, New Mexico.	ir, chaves	ý	3370	
9			'		
10	BEFORE: Richard L. Stamets, E	vaminar			
	BEFORE. RICHARD D. Stamets, E.	xamiller			
11	TRANSCRIP'	T OF HEARING	- -		
12					
13	APPEA	RANCES	3_		
14	For the New Mexico Oil Conservation Commission:			-	
15	Conservation Commission:	State Land Office Building			
16		Santa Fe, N		0	
17	For Burk Royalty Company:	Paul Cooter ATWOOD, MAI	ONE, MANI	N & COOTER	
18		Attorneys a P. O. Drawe			
19		Security Na Roswell, Ne		ank Bldg.	
20	For McClellan Corp., et al:	George Hunk			
21		HUNKER-FEDE Attorneys a P. O. Box 1	t Law	•	

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		MR.	STAMETS	S: Th	e He	aring	will	please	come	to	order
We	will	call	at this	time	Case	Numbe	er 55	96.			

MR. CARR: Case 5596, application of Burk Royalty Company for statutory unitization, Chaves County, New Mexico.

MR. STAMETS: Call for appearances.

MR. COOTER: Paul Cooter with Atwood and Malone in Roswell appearing on behalf of the applicant, Burk Royalty.

MR. HUNKER: George Hunker of Hunker-Federic,
Roswell, New Mexico appearing on behalf of McClellan Oil
Corporation, Albert J. Black, Robert L. Graham, L. C. Harris,
Addy Corporation, Robert M. Patterson and J. Penrod Toles.

We will have one witness.

MR. STAMETS: Are the witnesses in today's hearing the same witnesses which were sworn in the earlier hearing?

MR. COOTER: Yes, sir.

MR. STAMETS: The record should reflect that they have previously been sworn in this case.

MR. Cooter, do you have some additional testimony?

MR. COOTER: Yes, sir.

JON BEAR

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

DIRECT EXAMINATION

BY MR. COOTER:

Q.	Would	you	state	your	name	for	the	record,	please
sir?									

A. Jon Bear.

- Q. You are employed by Burk Royalty Company?
- A. That is correct.
- Q. You are the same Jon Bear who was a witness in this case at the prior hearing on December 3, 1975?
 - A. Yes, sir.
- Q. Marked and filed at the prior hearing as Exhibit Number Six were certain ratifications of the unit agreement and unit operating agreement by working interest owners.

 I will now hand you what I have marked as Exhibit Number Six-A, would you relate what they are, please, sir?
- A. These are two additional working interest owner ratifications from Cleary Petroleum Corporation and Amerada-Hess Corporation.
- Q. These were received by you subsequent to the last hearing prior to today?
 - A. That is correct.
- Q. Mr. Bear, under the phase-two participation formula as set forth in the unit operating agreement, including these ratifications which have now been marked as Exhibit Six-A, what percentage of the working interest owners have ratified the plan for unit operations?
 - A. Seventy-eight point eight, oh, four, four percent.

- Q. Marked as Exhibit Number Seven at the prior hearing were certain consents and ratifications by royalty and overriding royalty owners. I will now hand you what I have marked as Exhibit Number Seven-A, that is an additional ratification, is it not?
 - A. Yes, sir.
- Q. This application on which this hearing is held, as well as the prior hearing on December 3 of last year, seeks statutory unitization which is a relief different from the voluntary unitization which was approved by this Commission's Order R-5004 of May 6, 1975, is it not?
 - A. Yes, that is correct.
- Q. And in your opinion does this necessitate certain fundamental changes in the unit agreement itself?
- A. Yes, it does, due to the percentages and times as set out in the original agreement.
- Q. Let's turn back to the unit agreement which is marked as Exhibit Number One. The first such change necessitated by statutory unitization, rather than voluntary unitization is, I believe, Section 14 of the unit agreement which commences on page ten, does it not?
 - A. That is correct.
- Q. As originally drafted under the voluntary unit some tracts included within the unit area might have been omitted from the plan of unit operations?

- A. That is also correct, yes, sir.
- Q. Under the revised Section 14, on and after the effective date all tracts in the unit area would be entitled to participation, would they not?
 - A. Yes, sir.
- Q. That is one of the changes which you are suggesting the Commission make if the unit be approved?
 - A. If the Commission approves the unit, yes, sir.
- Q. Then next let me turn your attention to Section 23 which is the effective date and term if this be a statutory unit rather than a voluntary unit. You ask that that provision be changed?
- A. Yes, that is correct and the main reason for changing this is that the original agreement had an ipso facto date which is now past and this provision, if included and if passed by this board, this governmental agency, would delete that provision.
- Q. Under your direction and supervision the two proposed changes in the unit agreement, Section 14 and Section 23, have been made?
 - A. Yes.
- Q. And they together are marked as Exhibit Number Twelve, are they not?
 - A. Correct.

MR. COOTER: I have furnished Mr. Hunker with a

copy of these.

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Q. (Mr. Cooter continuing.) Not changed by any provisions herein sought, though, are the other provisions of the unit agreement and unit operating agreement which would be the land which would be included in the unit itself?

- A. No, it is not changed.
- Q. That remains unchanged?
- A. That is correct.
- Q. The plan of unit operation remains unchanged?
- A. Yes, sir.
- Q. As well as the participation of all interest owners, which includes both working interest and royalty interest and overriding royalty interest owners?
- A. That is correct. The percentages are all the same as set out in the original agreement.

MR. COOTER: Mr. Examiner, we offer Exhibits Six-A, Seven-A and Twelve.

MR. STAMETS: Are there any objections to the admission of these exhibits?

MR. HUNKER: No objection.

MR. STAMETS: They will be entered.

(THEREUPON, Applicant's Exhibits Six-A,

Seven-A and Twelve were admitted into

evidence.)

MR. COOTER: That concludes our direct testimony.

MR. STAMETS: Are there any questions of this witness?

MR. HUNKER: Yes, Mr. Examiner.

CROSS EXAMINATION

BY MR. HUNKER:

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- Q. Have you made a calculation, Mr. Bear, as to the percentage of royalty interest owners that have committed their interests to the unit agreement?
- A. The USGS has tentatively given their approval, as has the State. They have all tracts, except two fee tracts.

 The two fee tracts are assigned seventy-nine point one percent, as I recall.
- Q. Have the fee tracts committed their interest, the royalty interest owners have committed their interest under those tracts?
 - A. Yes, sir.
- Q. What about the overriding royalty interest owners under the State and Federal leases, have they committed their interests and if so, to what extent?
- A. I cannot give you a percentage right now on the overrides.
- Q. Can you say categorically that seventy-five percent of the royalty and overriding royalty interest owners have committed their interests to the unit agreement?

- A. You are asking me -- are you including the overrides with the royalty as one?
- Q Let me ask the question from the statutory provision, Section 65-14-8 of the New Mexico Statutes provides that no order of the Commission providing for unit operations shall become effective until a certain number of working interest owners have signed?
 - A. Yes, sir.
- Q. And also by the owners of at least seventy-five percent of the production or the proceeds thereof that will be credited to interests which are free of cost, such as royalties, overriding royalties and production payments. Have you got ratifications from seventy-five percent of the royalty and overriding royalty interest owners?
- A. Well, as I said awhile ago, I cannot definitely give you a percentage of the overrides. You asked me categorically. I would categorically say that we do have seventy-five percent of the royalty and overriding royalty.
- Q. At least tentatively committed on behalf of the State of New Mexico and the United States, is that correct?
 - A. Yes, sir.
- Q. Has the United States, acting through the United States Geological Survey, approved your changes incorporated in Exhibits Seven and Twelve?
 - A. No, just Twelve.

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Q.	They h	ave not	appr	coved	those?	Have '	the ot	her
working	interest	owners	who	have	ratified	your	unit	approved
those ch	nanges th	at you l	nave	made:	?			

- No, sir, they have not.
- In answer to Mr. Cooter's question, he framed it 0. so that the percentages depended on your phase-two schedule of participation and you answered the questions affirmatively when phase-two was put into the question. Now, if I should ask you what percentage of the phase-one people have committed to the unit agreement can you give me an answer?
- I would have to say that I don't know right now because I haven't added it up.
- Would you be good enough to tell the Commission Q. what people have actually committed -- I'll refer to an exhibit that is attached to the unit agreement and just ask you several questions.

Has Addy Corporation committed its interest?

- No, sir. A.
- Has Amerada-Hess committed its interest? Q.
- Yes, sir. A.
 - Has Amoco? Q.
- Yes, sir. A.
 - Warren G. Baron? Q.
- 24 Yes, sir. A.
 - Albert J. Black? Q.

A. Yes, sir.

- Q. Do you have a communication from Mr. Black where he says that his ratification was delivered to you conditionally and that he was revoking that ratification?
 - A. No, sir, I do not. I have never received one.
- Q At the time of the last hearing I handed your counsel a letter addressed to Burk Royaly, dated December the second and this is another copy of it. Take a look at this letter and tell me whether or not you have ever seen that before?
- A. I so state that I remember this letter -- well,
 I don't know whether it was this letter or a letter of
 this nature -- being introduced at the last hearing but I
 don't recall ever having seen it.
- Q. You do recall that I did pass a letter to Mr.
 Cooter?
- A. Yes, now, maybe I'm getting myself in a trap here.

 I don't remember one coming to our office as it is addressed there, let me put it that way.
 - Q. But you have seen a letter?
 - A. Yes, I have seen a letter.
 - Q. Do you know what the contents are?
 - A. Well, I have read it but it has been a month.
 - 0. You have read it?
 - A. I believe I have read it. It was passed around

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Q.

Robert L. Graham?

		Page13
1	at the las	st hearing. Okay, he says that he wants to revoke
2	it.	
3		MR. HUNKER: Without objection, Mr. Cooter, may
4	I offer th	nis as McClellan's Exhibit G?
5		MR. COOTER: Certainly.
6		(THEREUPON, McClellan's Exhibit G
7		was marked for identification.)
8	Q.	(Mr. Hunker continuing.) Burk Royalty Company has
9	committed	its interest, is that correct?
10	A.	That's correct.
11	Q.	Cleary Petroleum Corporation?
12	A.	Yes, sir.
13	Q.	Wallace G. Comer?
14	A.	Yes, sir.
15	Q.	Crown Central Petroleum Corporation?
16	A.	Yes, sir.
17	Q.	Dalport Oil Corporation?
18	Α.	Yes, sir.
19	Q.	George Eng?
20	A.	Yes, sir.
21	Q.	Exxon?
22	A.	Yes, sir.
23	Q.	Corrine Grace?
24	A.	No, sir.

A.	No,	sir.

- Q. G. W. Green?
- A. Yes, sir.
 - Q L. C. Harris?
- A. No, sir.

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- 6 Q. Charles H. Juna?
 - A. Yes, sir.
 - Q. W. W. LaForce?
 - A. No, sir, we haven't received it.
 - Q. McClellan Oil Corporation?
 - A. No, sir.
 - Q. Ann Norwood?
 - A. Yes, sir.
 - Q. Allen Q. Norwood?
 - A. Yes, sir.
 - Q. Robert M. Patterson?
- 17 | A. No, sir.
 - Q. W. B. Perry, Junior?
- 19 A. Yes, sir.
 - Q. Roark and Hooker?
- 21 A. Yes, sir.
 - Q. Tom Schneider?
- 23 A. No, sir.
 - Q. J. Penrod Toles?
- 25 A. No, sir.

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Q.	Wall	Street	Oil	Corporation?
y.	wall	DUTEEL	O_{T}	COLPOTACTORY

- A. No, sir. Wait, wait, excuse me. Yes, sir.
- Q. Walters Amusement, Inc.?
- A. No.
- Q. In summary then, you have not received ratifications from Addy Corporation, Albert J. Black, Robert L. Graham,
 L. C. Harris, W. W. LaForce, Junior, McClellan Oil Corporation Robert M. Patterson, Tom Schneider and Walters Amusement, Inc. (THEREUPON, a discussion was held off the record.)
- Q. (Mr. Hunker continuing.) Let me rephrase my question, it might trap you and I'm not intending to do that.

 To rephrase my question and to summarize, you have not received ratifications from Addy Corporation, Robert L. Graham,

 L. C. Harris, W. W. LaForce, Junior, McClellan Oil Corporation,

 Robert M. Patterson, Tom Sxhneider and Walters Amusement, I-n-c., is that correct?
 - A. You left out Albert J. Black that time.
- Q. I left out Albert J. Black. You have received a ratification from Mr. Black, is that correct?
 - A. Yes, sir, that is correct, but not the others.
- Q. Now, you are aware of Mr. Black's desire not to ratify?
 - A. Yes, sir.
 - Q. Are you aware of the provision in the unit agreement

the contract itself, which requires that the agreement
may be extended if eighty percent of those who have phase-one
ownership agree to extend the unit and --

A. I believe it is seventy-five percent of eighty percent of phase-one.

Q. The unit agreement provides in Section 23: If this agreement does not become effective on or before January 1st, 1976 it shall ipso facto expire on said date, here and after called "expiration date" and thereafter be of no further force or effect unless prior thereto this agreement has been executed or ratified by working interest owning a combined phase-one participation of at least eighty percent and at least seventy-five percent of such working interest committed to this agreement have decided to extend said "expiration date" for a period of not to exceed six months.

Now, you have told me that with regard to your new Section 23 that you have no agreement on behalf of the other working interest owners, other than Burk, and I suppose that Burk has agreed to this, yet you have changed this provision materially, haven't you, in your recommendation to the Commission?

- A. Yes, sir, we have.
- Q. Submitted in this exhibit?
- A. Yes, sir.

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MR. HUNKER: Mr. Examiner, I would like for you to take notice of the fact that, including Mr. Black, there is uncommitted under phase-one as shown on the exhibit attached to the unit agreement, twenty-nine point nine, seven, three, six percent.

> MR. COOTER: Twenty-nine point what?

MR. HUNKER: Nine, seven, three, six percent and these parties are represented by me here today.

W. W. LaForce has a third of one percent; Tom Schneider has a half of that, the total phase-one not committed by those nine parties is thirty point four, seven, two, zero, percent.

I would like the Commission to take notice of that fact.

- (Mr. Hunker continuing.) Mr. Bear, during the period of time when negotiations took place concerning the unitization of the Double L, these negotiations included the matter of a sub-operating agreement between Burk Royalty Company and McClellan Oil Corporation, are you aware of those negotiations and of the agreement that Burk Royalty Company entered into with McClellan Oil Corporation?
- I'm aware of the agreements rather than the A. negotiations. We did not ever enter into an executed agreement with McClellan.
 - Did you circulate a letter to your other working Q.

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interest owners asking them if they would have any objection to McClellan being designated as the sub-operator of part of the lands in the Double L unit?

- A. Yes, sir, I circulated the letter. The actual intent of the letter as I recall was to approve a form sub-operating agreement.
- Q. But it was contemplated at one time that McClellan Oil Corporation would be a sub-operator of part of this unit, is that correct?
 - A. Yes, sir.
- Q. What is your company's position at the present time with McClellan having rights to sub-operate?
- A. Let me answer that in this way, Mr. Hunker, since we have called this statutory unitization hearing our company has not discussed this matter and, therefore, I don't believe I am qualified to give a company position.
- Q. What would your recommendation be in this regard to your company?

MR. COOTER: We have given counsel quite a bit of leeway but I think that is pretty far afield. If we are going to sit down at this time and negotiate in front of the Commission that's one thing I would be happy to partake in but I think this is completely irrelevant, the negotiations being considered here.

MR. STAMETS: Your objection is sustained.

level is.

Q. (Mr. Hunker continuing.) Under the new energy act,

Mr. Bear, can Burk Royalty Corporation qualify as an independent

oil operator?

A. I don't even know what the limit on an independent

Q. Do you think that this act should be taken into consideration in determining who should be the operator of these properties in the event that Burk Royalty cannot

qualify as an independent operator?

MR. COOTER: I don't think the proper foundation has been laid as yet for that question. This witness hasn't been qualified, whether or not he is acquainted with it or familiar with it or knows what the energy bill provides.

- Q (Mr. Hunker continuing.) Mr. Bear, in making your recommendations to the Commission as to what was fair, reasonable and equitable by way of a formula for unitization, did you take into account the price that was being paid for oil?
- A. Now, Mr. Hunker, when you say, "when I made the recommendation", I didn't make the recommendation, the Operators' Committee made the recommendation for percentages. In other words, that is what is in the unit agreement if I'm understanding your question. I didn't say this is going to be the formula. Am I not understanding your question?
 - Q. Well, let me ask you this question in a different

Subcommittee?

	l II	
1	way. Did	you serve as a member of the Engineering Committee?
2	A.	Yes, sir, I did.
3	Q.	For the unit?
4	А.	Yes, sir.
5	Q.	As a member of that Engineering Committee did you
6	take into	consideration the price that was being paid for
7	oil?	
8	А.	Yes, sir.
9	Q.	What does it cost you on the average to operate the
10	wells in t	the Double L field?
11	A.	We are not the operator and I don't know.
12	Q.	Do you know whether or not your wells have reached
13	their ecor	nomic limit or not?
14	A.	I would have to say, no.
15	Q.	They have not reached their economic limit?
16	A.	On some leases and I believe we have one or two
17	leases tha	at have.
18	Q.	Can you identify the leases that have reached their
19	economic 1	limit?
20	A.	No.
21	Q.	Have you made any further studies of this matter
22	since the	last hearing?
23	А.	As far as economics go, no, I have not.
24	Q.	Have you called a meeting of the Engineering

A. No,	I	have	not.
--------	---	------	------

MR. HUNKER: I have no other questions at this time.

MR. STAMETS: Are there any other questions of this witness.

MR. COOTER: Just very brief, if I may.

REDIRECT EXAMINATION

BY MR. COOTER:

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- The proposed changes, or Exhibit Twelve, are merely your suggestions to the Commission on how the unit agreement might possibly be revised to reflect statutory unitization rather than voluntary unitization as originally contemplated?
 - That is correct.
- Q. Have you been advised by Mr. LaForce that he executed a ratification of the unit plan of operation?
 - Yes, I have. A.
 - Q. And what happened to that ratification?
- A. It was sent to Mr. McClellan and I never received it.
 - MR. COOTER: Thank you, that's all.
 - MR. STAMETS: Any other questions of the witness?
 - MR. HUNKER: No more.
 - MR. STAMETS: He may be excused.
- 25 (THEREUPON, the witness was excused.)

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MR. COOTER: That concludes our case.

JOE L. JOHNSON, JR.

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

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DIRECT EXAMINATION

BY MR. HUNKER:

- Q. Will you identify yourself, please, sir?
- A. My name is Joe L. Johnson, Jr. with Stevens Engineering, Wichita Falls, Texas.
- Q. Are you the same Joe Johnson who testified in this matter earlier?
 - A. Yes, sir.
 - On December 3rd, 1975?
 - A. Yes, sir.
- Q. At the time of the hearing in December of 1975,

 Mr. Johnson, what recommendations did you make to the Examiner
- A. I recommended that we call an Engineering Subcommittee meeting for the purpose of updating the engineering report and by so doing to establish new participation factors.
- Q. Why did you do this, why did you make this recommendation?
- A. Well, it was very obvious at that point and still is today that we are producing oil that can be classified in no other manner than primary. We are not injecting any water,

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the majority, if not all of the property in the Double L are operating above the economic limit of production, yet the phase-two position which we would obviously be in under agreement is designed primarily for secondary recovery percentages.

- Q. Was a meeting of the Engineering Subcommittee called?
 - A. No, sir.
 - Q. Did you attend any such meeting?
 - A. No, sir.
- Q. Did you make some studies after the time that you realized that no meeting would be called?
- A. Yes, sir, we requested a meeting when it was obvious that the continuance was going to take place, however, there was no meeting called. Therefore, I did make a study that is the similar type study that I had requested that the Engineering Subcommittee make.
 - Q. And have you completed that study?
 - A. Yes, sir.
- Q. Have you prepared some exhibits that demonstrate this study or the conclusions that you have reached in connection with this study?
- A. Yes, sir.
 - Q. Referring to McClellan, et al Exhibit Number A, I would like for you to tell the Examiner what this exhibit shows?

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This is a correction on a previous exhibit given in A. the previous hearing. What this is is an economic limit determination. As you recall, the last time we were here the oil price was, as I recall, eleven, twenty-six on this same exhibit number. Now, what I have done in this instance is, after reviewing the recently signed energy bill, I have assumed, and it is going to take a little while to be positive of where this is but I have assumed that the price of oil that would be paid for oil in the Double L will be eleven, thirty-three. I reduced it by taxes and increased it by gas in order to again determine an economic limit of a well The average price of operation has on a month's basis. remained the same, all I have done is change the price of the oil, the price being received for the sale of oil and what this amounts to is, I believe previously my other exhibit showed roughly a thirty barrel per month per well economic Now, with the lower price of oil this has to be moved upward and it calculates to approximately thirty-five barrels per month per well.

So, the exhibit is presented as a correction to the previous due to the energy bill signed by the president.

- Q When is that energy bill to be effective?
- A. Febuary first as I understand it. Does anyone know?
- Q. In connection with the exhibit marked B, will you explain to the Examiner again what your study reflects?

A. Here again the review, what the Engineering Subcommittee did several years back was to meet and prepare decline curves on each individual lease within the bounds of the Double L unit. We then projected these decline curves forward to an economic limit of production. At that time the economic limit was established at being ninety barrels of oil per month per well instead of the thirty-five or so but at that time we were looking at roughly a four dollar price of oil.

So as I mentioned earlier we are obviously not in secondary yet, yet we are in phase-two according to what the Engineering Subcommittee had done. That is why I again requested that the Committee meet and get this thing straight. We had plenty of time to do it, just get it off the ground and get it done.

When this became apparent that we weren't going to do this then I did it on my own. I was a member, well, I was one of four, as I recall, that worked in the Engineering Subcommittee before so basically what I did was update the curves that we prepared at that time and projected those curves to an economic limit as determined from the previous exhibit, then I determined the amount of oil underneath that curve for each individual lease and I also updated the cumulative production to one, one, seventy-five and the production from one, one, seventy-five to eleven, one, seventy

five and then arrived at a future primary, as I mentioned earlier, as of eleven, one, seventy-five and arrived then at a total primary recovery on a lease-by-lease basis.

So this is the summation of the work that I had hoped the Engineering Subcommittee could perform.

- Q. And in connection with the total shown on that exhibit, the total primary recovery in barrels shown at one million, six hundred and thirty-four thousand, a hundred and two barrels represents what, Mr. Bear?
- A. It represents the ultimate primary production and what that figure is saying is that there will be one million, six hundred and thirty-four thousand, one hundred and two barrels produced from the Double L field from its beginning to its end on primary production. That's an economic limit on primary production and that is what would be classified as ultimate primary production from all of the leases.

You will also note that on projecting as of eleven, one, seventy-five that there is an additional primary, as I mentioned in the previous hearing, of one hundred and sixty-six thousand, five hundred and twenty-eight. Keep in mind that figure is contained within this one million, six hundred and thirty-four, one, oh, two.

- Q. Turning to Exhibit C, what is this exhibit?
- A. Exhibit C is not to take the place of page ten within the unit agreement. It is necessary for the Commission

to, if they rule in behalf of our feelings here, to have a correction because this data is out-dated.

If you will notice, what we have in Item A is the ratio of the volume of oil, I'm reading now from the unit agreement as presented, I believe, by Burk's testimony. (Reading.) We have the ratio of the volume of oil determined to be producible after twelve, one, seventy-two. (End of reading.) Referring back to Exhibit C, with the updated data, I'm changing that date to eleven, one, seventy-five, which is the last date I could get a true production figures from the operators.

Again we have the gross income and the gross income for that period on the old one is six, one, seventy-two to twelve, one, seventy-two. In this instance it is five, one, seventy-five to eleven, one, seventy-five because I couldn't get any closer data.

We also must change the ratio of the ultimate primary that each lease has, which is Item C, because there is more primary available than what we had credited to the property back several years back.

B does not change whatsoever, it is the same.

Also if you will note, we are not recommending on page ten any change in the formula of tract participation.

We are still saying fifty percent A, fifty percent of B, fifty-five percent of C, forty-five of D.

The other changes on that page basically amount to changes in that figure of one million, four hundred and seventy thousand, seven hundred and fifty-eight, changing that to one million, six, thirty-four, one, oh, two.

- Q. Do you have any other comments to make in regard to this exhibit?
 - A. No. sir.
- Q. In connection with your Exhibit D, would you tell the Examiner this exhibit is?
- A. Exhibit D is again taking the formula that we have in the original agreement and as shown on our Exhibit

 Number C page, applying that formula to the data that we have developed concerning primary, future primary, acre-feet, income, it derives a tract participation for each individual tract within the bounds of the proposed Double L unit on a tract number basis. It gives the phase-one and the phase-two position and this is meant to take the place of Exhibit C which is the next to the last page of the proposed unit.

 As we change the tract participation we must -- or update the formula we must also change these positions so that this is what this is meant to take the place of.
- Q I notice that in your Exhibit B you list twenty leases and on Exhibit C you list twenty-four leases, why is this?
 - A. You have some leases that are not producing, some

that are not producing any oil at the present time but have. For example, Grace's State lease is not producing anything at the present time but has produced twelve thousand five hundred and fifty-nine barrels.

- O. But it will participate in the unit?
- A. Oh, yes, and also you have some properties, I believe Wolfson has two tracts that never produced any oil, McClellan has one that never produced any oil and these properties do have reservoir area available to a well to be drilled but it is in a very minor nature so when the Engineering Subcommittee met and determined acre-feet on each individual tract they gave credit to those particular tracts and we have requested at this point and strongly recommend that the tracts be included and this is primarily to, as I like to refer to it, to prevent a parasite position from another operator coming in and messing up the unit.
- Q. Does this Exhibit D reflect the relative value between the tracts that are in the unit agreement within the unit area?
 - A. Yes, sir.
- Q Do you have any other comments with regard to that exhibit?
 - A. No, sir.
- Q. Turning to Exhibit E, I will ask you to explain that exhibit to the Examiner?

Page30

A. Again this is building one thing upon another and once you have done the work necessary and that had been previously requested of the Engineering Subcommittee and you establish reserves, income, all of this data and determine your factors, then all of these are changes to the present exhibits that are outdated, in my opinion, and what Exhibit E is meant to do is to take the place of the next to the last page of the unit operating agreement.

It does not have a number by it but it is next to the last page as long as you don't consider the accounting procedure as being a page, it's very similar. Incidentally, there is a mistake on the original one. It's not of any major consequence but in the original one tract number ten is actually owned by McClellan but the participation factor and the map reflects that to be tract nine. They just got reversed.

MR. STAMETS: Excuse me then, I've got the Exhibit
Two from the original hearing, unit operating agreement.

A. Yes, sir.

MR. STAMETS: Exhibit E under Exxon Corporation there is a tract number ten.

- A. That should be changed to nine.
 - MR. STAMETS: Along with the participation factor --
- A. No, sir, just change the numeral ten to nine. Now, drop down on McClellan and change the nine to ten and that

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corrects it.

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And what we have then in Exhibit E is the unit participation factor, phase-one and phase-two, and this is another way of breaking it down and what it is, it shows each individual operator, the tracts that they own and the total percentages that they are to receive of future primary and/or secondary.

It is fairly obvious if you are referring to it that the changes are not drastic in any instance. if you would refer to Exhibit E on the old one as compared to this one, Dalport's percentage increases from thirty-three to thirty-seven. I'm really not mad at Jon after all. decreases and McClellan is virtually the same.

What we are really trying to do is update and be sure that the data is accurate.

Turning to Exhibit F, explain to the Commission Q. what that is?

Exhibit F is meant to take the place of the page in front of the one we were just looking at in the old agreement. And what that is is a breakdown of the phase-one and phasetwo unit participation by individual working interest owners. Again this would be identified in the original unit agreement, unit operating agreement, as being the third page from the back and there is one slight change here and that, as I can determine on the original, Roark and Hooker carry not only

their interest but J. C. Monk. Now, on the other things Monk is actually a working interest owner so we have added Monk here, representing that Monk was included with Hooker on the old one, it is a very small error, they are partners in a lot of things.

- Q. In connection with the study that you have made,
 Mr. Johnson, and the relative values that you have assigned
 to the several leases and tracts in the unit area, is it your
 opinion that this presents a fair, reasonable and equitable
 formula for unitization of this pool?
- A. Yes, sir, we are using the same formula that was used before, all we are doing is, we have updated the data to a point where it becomes a more realistic position than it was before. Actually the way it is now if you go by the terms of the old agreement and as admitted previously in testimony there is no phase-one, we are already past it, we are in phase-two yet a lot of the things are designated on the basis of phase-one. So in order to be fair and equitable the only way to do it is to update the old data. You don't put a unit together today that you worked on three years ago when the oil prices have changed, or even five years ago.
- Q. Are you saying that to your knowledge that you know that the McClellan, et al leases have not reached their economic limit?

A. I'm positive of it and we are not getting secondary oil either. In fact, in past testimony I indicated this on another exhibit as to the change that would occur in McClellan's income in the event that this was required instead of if he just operated it as it was. There is no way that he can reach an economic limit on those properties for quite some time.

Q. Did you make any further studies with regard to the effect of these present revisions on the royalty interest owners?

A. Only in the light of -- yes, in the light of Federal and State and I'm not sure that I got through the fee. Under the old plan --

Q. By the old plan, do you mean the plan that was submitted by Burk?

A. And here, I had to have something in order to compare with, some guideline, so the way I assumed the guideline was this, I had previously on Exhibit B estimated that the primary was a hundred and sixty-six thousand, five hundred and twenty-eight barrels and as I testified previously, I felt like that the secondary reserves as set out in the original report by the Engineering Subcommittee are actually very, very conservative. So I used a figure of one point seven times primary to arrive at the secondary estimate.

Now, the reason for this is to try to determine the effect

on royalty as well as other things, in barrels. How many barrels are we talking about?

Well, under the plan that Burk has presented then we don't have any primary, so we don't have any phase-one, we are working immediately into phase-two.

I still gave the future reserve estimate, though, on the basis of the hundred and sixty-six, five, twenty-eight plus one times seven of ultimate primary. Under that plan the Federal leases, utilizing the factors as shown in the Burk report, we would recover a hundred and forty-nine thousand, three hundred and eighty-three gross barrels. Under this plan, updating and having a phase-one and a phase-two position it comes out to a hundred and fifty-two thousand, seven hundred and twenty or a difference of plus thirty-three, thirty-seven.

I worked the State the same identical way. Theirs is a minus eleven, twenty-seven, eleven hundred barrels over the entire life of the thing.

So I would have to say that in all probability the fee leases which would be which would be the difference in these things, would be also in a minus category of about twenty-two hundred barrels.

Q. Do you have any other comments you would like to make by virtue of the studies that you have made, Mr.

Johnson, for the illumination of the Examiner?

A. The only thing and it showed, I guess, one other thing or the one thing that should be pointed out is in the previous testimony and as shown on my exhibits at that time, these properties reach a high -- I show it this way -- they reach a high peak in production, start rolling down. At the time the Committee made its projection we were in this vicinity of the curve.

On the down side of the curve?

A. On the down side of the curve and projected these straight down to an economic limit. Well, as we can see now and as is very obvious in the study of the various leases, these curves don't come straight down. I think they are coming straight down initially because they are draining in the immediate vicinity of the wellbore. As they start drawing oil away from the wellbore, further and further away and generally we are talking about forty-acre drainage patterns, then the slope smooths out and the line becomes more of a slope of that sort.

Q. On a more level line, is that correct?

A. Yes, and this is not the way we projected, therefore there's where the real difference is but at the point that the Committee did its work it was difficult to determine where it would start moving out and if it would start moving out, so the Committee just set it on a straight-line projection. This is on semi-log paper. This becomes very obvious as you go

through the curves that it is not following this curve in almost every instance, so, there's where the real mistake is and, therefore, the necessity was to update and have the data.

If you look at it, really the future primary that I'm projecting is no more than ten percent of ultimate, so we have produced ninety percent to date of the ultimate primary. We are pretty doggone close.

Well, these probably could be projected by fifteen different people and come up with fifteen different answers but I rather doubt that they would fall too far away from our ten percent position. One might be eight and another twelve but this to me is much more accurate than two-and-a-half-year old, two-year old data.

MR. HUNKER: I have no further questions for the witness at this time.

MR. STAMETS: Are there questions of the witness?
Mr. Cooter?

CROSS EXAMINATION

BY MR. COOTER:

Q. Mr. Johnson, on October 23 of last year, you wrote a letter addressed to McClellan Oil Corporation setting forth your then recommendations for the remaining primary production remaining and the effective date for the change-

over from phase-one to phase-two, did you not?

A. Yes, sir.

- Q. This was mailed out by Mr. McClellan to all working interest owners by his letter of November 18. Do you have a copy of that before you?
 - A. No, but I think I'm familiar with it.
- Q. I have marked mine as Exhibit Number Thirteen. In that letter, which I assume was written after rather thorough study and you set forth your recommendations after your study and analysis that the effective date of the phase-two formula be changed from one point four, seven, oh, seven, five, eight barrels to one point five, six, one, three, oh, one barrels, did you not?
 - A. Yes, sir.
- Q. So that in effect you added to remaining primary production ninety thousand, five hundred and forty-three barrels?
 - A. That's correct.
- Q. Now, prior to that letter to Mr. McClellan and Mr. McClellan's letter to the working interest owners of November 18, had you or Mr. McClellan at any time expressed in writing any disagreement with the Engineering report which was the Applicant's Exhibit Eight, I believe, at the prior hearing. I think it was your Exhibit Number One. Two copies were offered, but the Emgineering report?

A. No, we didn't express any objection. You can update this without having an objection expressed.

But that was the first time that you ever set
forth anything in writing which indicated or would show any
disagreement by you or Mr. McClellan's group with the
Engineering report?

A. Actually I had no objection basically to the Engineering Committee report. I was part of it. The thing I was hoping to accomplish through this letter was to establish the fact that, "look things have changed since that report was made and since the agreement was prepared." So probably I didn't express this in writing, but again I wouldn't be shooting at the report because the report changes -- I mean, I can change the report myself in a few minutes to update the thing to get some idea of where we stand. The report was meant as a guideline to this data, really.

- Q. Well, that's where this changeover date was first arrived at, the one point four plus million barrels?
 - A. Yes.
- Q. And that letter of October 23 which is now marked as Exhibit Thirteen, which is the first written suggestion that you or Mr. McClellan made to the other working interest owners, that this should now be revised?
 - A. Correct.

Now then, at the December 3 hearing and particular!
exhibits which I believe are Number Two and Number Seven,
indicated that on December 3, the date of that hearing, you
believe that there was additional primary remaining of a
hundred and eighty-one thousand, eight hundred barrels?

A. Yes.

- Q. That's a little over twice what was set forth in your October 23 letter?
 - A. Uh-huh.
- Q. And now offered today as Exhibit Number B is a third revision of that figure where it appears to be a hundred and sixty-six thousand, five hundred and twenty-eight barrels?
 - A. Correct.
- Q. The suggestions you have made for proposed changes to the Examiner are based on your last estimate of remaining primary, that which you have resolved subsequent to your letter of October 23 and subsequent to the last hearing of December 3?
 - A. Yes, sir.
 - MR. COOTER: That's all. Thank you.
- MR. STAMETS: Are there any other questions of the witness?
 - MR. HUNKER: Just one question.

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BY MR. HUNKER:

 Mr. Johnson, in connection with the studies you made prior to writing the letter of October 23, 1975, to what extent were those studies made, were they as extensive as the studies

you have made within the last ten days?

REDIRECT EXAMINATION

No, sir. Let me explain that and here again was one A. reason that we were strongly recommending and did strongly recommend the Engineering Subcommittee meeting. get four people, maybe you can get everybody together to point, okay, this is the way the reserves are, if you take four people separated from this thing then obviously they are all going to go off in different directions. To explain the point on the October 23rd letter, the question that was asked me as a consultant, quick, is it fair or not fair? Okay, quick, I look at it and I have to work with total field. I can't look at individual leases, I haven't got time, frankly, to go into individual positions. Okay, so I look at it and I say, all right, here's the picture, it doesn't look fair.

Now, when we come to the meeting, again we are working on a short-time fuse and if you will notice I presented this in two curves. One is McClellan only and one is the total field, again hoping that we would have the Engineering Subcommittee meeting, which then would break it down to increments, little bitty increments. Well, we were

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unable to do that so that's what I did. I broke it down to each individual lease. That figure, in my estimation, is by far the most accurate figure that I have worked with because I'm approaching the economic limit, I'm working with each What happens to you when you start working individual one. with the grouping of leases, like the whole field, McClellan only is that you may have a well that comes down and hits the economic limit. Let's take for example, a lease that has four wells and it comes down into an economic limit position of a hundred and thirty barrels a day and that happens in June of this year, well, if the operator shuts that thing down and he says, forget it, it's costing me money, let's just leave it down, now, I have lost that hundred and thirty barrels a day, so that if really you took the total field, total field curve in the latter stages of any field, it is going to be a sawtooth type affair, rather than a smooth type curve because you are going to have wells fall out but what you really when you project something of this sort, you are assuming that they are all going to stay and they don't because somebody is going to lose and somebody is going to shut in their wells and there is no way of telling when they are going to do it.

But as you work with an individual lease you can arrive at a more true prediction of future primary.

Q. Do you have any further explanations to make with

regard to that letter?

A. No, sir.

MR. HUNKER: If the Examiner please, I would like to offer at this time McClellan, et al's Exhibits A through F, as well as the G in case it hasn't been offered.

MR. STAMETS: Is there objection to the admission of these exhibits?

MR. COOTER: No objection, Mr. Examiner.

MR. STAMETS: They will be admitted into evidence.

(THEREUPON, McClellan, et al Exhibits

A through G were admitted into evidence.)

CROSS EXAMINATION

BY MR. STAMETS:

- Q. Mr. Johnson, you discussed the amount of production that would accrue to royalty interest owners changing, like the USGS and the State and also looking at the exhibits that have tract participation, Exhibit D, Exhibit E and Exhibit F, all of these show changes?
 - A. Yes, sir.
- Q. From the original unit agreement. Is the reason for these changes the fact that all of these wells or leases would not decline at the same rate to your new econimic limit?
 - A. At the same rate?

Q. Right.

- A. No, they are all going to be different, each one is a different decline trend.
- Q. I'm just assuming here that we've got two different levels, cutting off phase-one, one at one point four million and one at one point six million, roughly?
 - A. Okay.
- Q. If you had all of the leases declining at the exact same rate then there would be no changes in these participation formulas, is that right?
- A. No, sir, under normal conditions this would probably hold true but, see, we've got the formula confused with two additional facts and one is, gas. In the phase-one we are giving fifty percent weight to future primary oil production as compared to the ratio of total and we are giving fifty percent to income, gross income. Well, gross income has gas and oil and if a well is, for example, over on the west side it may start off making oil and then start turning to gas as the cap expands, or what have you and this has happened, so, we've got that factor that confuses the picture somewhat.

Then the phase-two part of it, acre-feet and ultimate primary, so it, probably under the condition you're using for an example, it probably would parallel, but the other one won't.

MR. STAMETS: Any other questions of the witness?

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He may be excused.

(THEREUPON, the witness was excused.)

MR. STAMETS: Anything further in this case?

MR. COOTER: We would offer, I don't believe I did, Exhibit Thirteen which was Mr. Johnson's October letter.

MR. HUNKER: We have no objection to it being admitted.

MR. STAMETS: Exhibit Thirteen will be admitted.

(THEREUPON, Applicant's Exhibit Thirteen

was admitted into evidence.)

MR. COOTER: I would like to recall Mr. Bear for short questioning. Before I do that I would ask for about a five or ten minute recess.

MR. STAMETS: We will take about a fifteen minute recess.

(THEREUPON, the hearing was in recess.)

MR. STAMETS: The hearing will please come to order.

Mr. Cooter, you had some redirect.

JON BEAR

recalled as a witness, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. COOTER:

Q. Mr. Bear, you've heard the testimony of Mr. Johnson

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that at the prior hearing, as well as today, that the amount of secondary recovery projected for this pool was primary production times one point four, I think was the figure that he mentioned at the prior hearing as being used by the Engineering Committee and one point seven what he thought should be the proper figure. Being a member of the Engineering Committee, was that the way the secondary recovery was projected?

A. No, sir, the secondary recovery was not projected by taking the primary recovery times a figure. The Engineering Committee determined the total recoverable amount of oil by a volumetric calculation and deducted the projected primary oil from that and came up with the secondary reserves.

- Q. And what were those secondary reserves calculated to be?
- A. A million, six hundred and seventy-two thousand barrels.
- Q. So that added to the projected primary made a total amount of recoverable oil from the Queen formation underlying this pool to be what?
- A. Three million, a hundred and forty-two thousand, seven hundred and fifty-eight barrels.
- Q. Now, that is shown on pages four through six of the engineering report which has been marked previously as Exhibit Eight?

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- A. That is correct.
- On In your opinion is there just so much recoverable oil underlying this proposed pool?
 - A. Yes, sir, there is.
- Q. And if more is added to primary will more be added to secondary?
- A. We don't believe that if more is added to primary that more will be added to secondary.
- Q. If the Commission were to change the effective date of the phase-two participation, in your opinion is it necessary to re-examine the phase-two formula?
 - A. Yes, sir, we believe so.
 - Q. Why should that be done, in your opinion?
- A. Because if primary production is going to be increased, we believe that less secondary oil will be produced and, therefore, phase-two of the participation formula should be changed to more adequately reflect the volume of oil recoverable by only secondary means.
- Q. Do you have a suggestion to make as to what that alternative formula should be for phase-two?
 - A. We would suggest a hundred percent acre-feet.
- Q. That would then become effective, under Mr. Johnson's testimony, at what he calls the true economic level based on oil at eleven dollars and thirty-three cents a barrel?
 - A. That's correct.

- Q If at that time all of the wells within the proposed pool would have then reached their economic limit?
 - A. According to his testimony, yes, sir.
- Q. Right, referring to his testimony. Some of them might have reached it before that date and that might be the final date?
 - A. Correct.
- Q. Under his proposal. But then all tracts would then be reduced to the common factor of just having so much possible or potential productive acre-feet that would be recoverable through secondary recovery operations?
- A. Yes, there would be so much oil recoverable as represented by acre-feet.
- Q. Are you familiar with other units that use this type of formula?
 - A. Yes, sir, I am.
- Q. Would it allocate the recovery to the separate tracts within the unit on a fair, reasonable and equitable basis?
 - A. I believe it would.
- Q. And protect the correlative rights of one and all interest owners within the pool?
 - A. Yes, sir.
- Q. The application of that type of formula would allocate to each tract within the unit, all of the producing formation

which underlay each tract?

- A. On its percentage basis, yes, sir.
- Q. You heard Mr. Johnson's testimony about the price of oil at eleven dollars and thirty-three cents under the new energy bill, do you concur with that?
- A. I do not necessarily concur or not concur. I don't know what the price of oil is going to be after February the first and I don't think anybody else does. I think the only thing in the bill and I've already indicated that I'm not totally familiar with the bill, but I do believe the bill says the average price of oil in the United States will be seven dollars and sixty-six cents per barrel and it has been left to our President to determine what oil will have what price to arrive at this average. If he decides that the oil from this flood next month will be eight dollars then the whole primary economic limit has changed again.

MR. COOTER: All right, that's all.

FURTHER CROSS EXAMINATION

BY MR. HUNKER:

- Q. The economic limit of the pool should be considered in determining the relative value of the tracts that are in the pool, is that correct?
- A. Under the formula that we have, yes, sir, it's a two-phase formula and the first phase is primary and the

economic limit is included in that and should be included in that, yes.

MR. HUNKER: I have no further questions.

MR. COOTER: I have nothing else to add.

MR. HUNKER: I would like to recall Mr. Johnson,
I have a question or two.

FURTHER CROSS EXAMINATION

BY MR. STAMETS:

- Q. Mr. Bear, if I understood your testimony correctly what you said was that if the Commission should adopt the ultimate primary recovery of one point six, three, four million barrels that McClellan's group has recommended here today, that you would wish to change the tract participation formula under phase-two of one hundred percent under D?
 - A. Acre-feet. Oh, excuse me, that is correct.
- Q. Now, just briefly what is the reason for going to that formula as opposed to what has been proposed here?
- A. Well, as I said, it is our opinion that there is only so much oil in the ground. At some point in time primary production is going to produce some secondary oil. If we are going to produce more primary oil, we are going to produce less secondary oil. As the formula now stands there is a primary -- there is a percentage included in the second phase for primary production. If we are going to get clear

down to where there is absolutely no oil production, or practically none, we have, as previously projected, produced some secondary oil already. Therefore, the only thing that should be considered in phase-two is strictly secondary percentages or that oil which is secondary oil. As it stands now phase-two is a combination of primary and secondary.

Q. And as to the price of oil, you indicated that to your knowledge the price could be less than eleven dollars a barrel, it might be seven, sixty-six or it could be less than seven, sixty-six?

A. I don't think it could be less than seven, sixty-six because as I understand the bill, the average price of oil in the United States is supposed to be seven, sixty-six, so all of the oil would be seven, sixty-six. As I understand it there would be no way to get it -- well, there would be a way to get it below if the President said waterfloods are going to have five-dollar oil and old oil will be ten-dollar oil it could be but I don't really think -- I don't foresee that at all. At the worst it would be seven, sixty-six in my books.

MR. STAMETS: Any other questions of the witness?

MR. RAMEY: What is this oil now considered, new
oil or stripper oil?

THE WITNESS: It's stripper oil.

MR. RAMEY: If they threw off the restrictions on stripper oil and said stripper oil would receive no favor then it might fall back to the old oil classification of five dollars and twenty-five cents?

THE WITNESS: It could.

MR. RAMEY: Thank you.

MR. STAMETS: Any other questions of the witness?
He may be excused.

(THEREUPON, the witness was excused.

JOE L. JOHNSON, JR.

recalled as a witness, having been previously sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HUNKER:

- Q. Mr. Johnson, you heard Mr. Bear testify as to the Engineering Committee report and Mr. Bear testified that the Committee used the one point four figure and you had used the one point seven figure, do you have some comment to make with regard to that testimony?
- A. Well, obviously the price of oil makes a difference as to how far you are going to carry a waterflood.
- Q. By that what do you mean, how long you are going to continue to produce the oil that is in the pool?
 - A. Exactly. If you are getting two dollars for your

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oil you are going to reach an economic limit much earlier than you would if you had ten dollars for your oil. Therefore, the recovery is going to be greater underneath a ten-dollar oil position than it would be under a two. But the point I was making in utilizing the one point seven figure is that this is a figure that is readily utilized and easily explained in that I am the engineer on the McClellan Sulimar project. This project has now been in being for approximately three years, we have done very well, we are presently producing in excess of five hundred barrels of oil per day from approximately twenty-three total wells, half or more of which are injection wells. The profit has been very good and we are now at one point seven of primary now and we've got a long way to go.

As I said in the previous hearing, I would not be at all surprised to see this go to two times primary, possibly over. Again, question on the price of oil.

I would like to comment on this price of oil bit
too. The price of oil is established within the energy bill.

It is very definite that oil will see five dollars and a
quarter and it very definitely said that new oil will receive
a certain set figure which appears at this time to be eleven,
twenty-three or thirty-three. I used an eleven, thirty-three
or twenty-three figure, I forget which of the two in my
projection but later there is another part in that bill that
eliminates that and puts it at eleven, fifty with a guaranteed

increase of five cents per month during the life of the bill or over a forty-month period, a two dollar increase. So really, we want to play economic limits and guarntees, we are not looking at any seven dollar oil, we are starting at eleven, fifty and we are going to thirteen, fifty, that's wrong, it has nothing to do with what the President has to say or anything, that's established by the Congress.

- Q. Do you agree with Mr. Bear's statement that there is just so much oil in the pool?
- A. If that were the case then we would have to discount price, we've got to forget price entirely because price has nothing to do with the amount of oil according to this and we are seeing improvements, by the way. A lot of this was gauged in the Engineering Committee and the calculations were gauged as a cross check back against Caprock Queen that was flooded some years ago and is now virtually flooded.

Caprock Queen had certain difficulties, one was handling of the water, two, a varying sulphate scale action on both the injection wells as well as the producing wells. And they had a lower price for their oil but yet Caprock Queen had a range, it was some less than one to one on primary to secondary or secondary to primary. There were some that were in excess of two to one but the general average across the board was about one point four.

However, the Caprock Queen indicated and hopefully

we have gained from the knowledge that they gained during
their flooding and this is one reason I attribute to the
success of Sulimar. We have had no scaling difficulty. This
was one of their major troubles, early economic limit because
of scale action on the pumps, they were pulling the wells
four times or more a month. We pull ours generally one time a
year as a general average. We don't have any scale. Why?

Because we treated for scale to start with, we put it in the
injection water, it carries through, it is of high enough
concentration to prevent a scale action so we don't have a scale
injection point, therefore, we have reduced the injection
rate. We don't have scale at the producing wells, therefore,
a higher operation cost.

Q Therefore, you are extending the economic limit of the pool?

A. We are also getting more oil out of the pool. I hope we have gained something in twenty some years of experience from what happened to them and what we are going to do in the future.

MR. HUNKER: I have no further questions of this witness.

MR. STAMETS: Mr. Cooter?

FURTHER CROSS EXAMINATION

25 BY MR. COOTER:

Q. There might have been some misunderstanding from Mr. Hunker's first question and I would like to correct that. It was not Mr. Bear's testimony that the amount of secondary recovery was determined by multiplying the projected primary of one point four million by a one point four factor. Mr. Bear stated that the Engineering Committee determined the best it could the total amount of recoverable oil in this pool. Do you agree that there is just so much oil there to be recovered?

A. Yes, but now, how much are we going to recover at X price as compared to Y price?

Q. The economic amount of recovery but they first tried to determine how much oil was underlying or within the Queen formation underlying the various tracts that could be recovered?

- A. I presume that is the case.
- Q. That is as set forth on pages -- that all of the calculations are on pages four to six, I believe, of the Engineering report and that figure was that they estimated that that was three point one, four, two, seven, five, eight if my mathematics are correct which is the total, so much primary and so much secondary?
 - A. Uh-huh.
 - Q. You would agree that that is a definite figure?
 - A. No.

- Q. I'm not asking you to agree with the figure but there is a definite figure that, or as best as can be calculated, as to what is the recoverable oil?
 - A. Yes.

- Q. You now disagree with that figure as set forth in the Engineering report?
 - A. Yes.
- Q. By adding more to the primary and then multiplying it by one point seven factor which is a minimum factor, it might go up to as much as two point?
 - A. Right.

MR. COOTER: That's all.

FURTHER REDIRECT EXAMINATION

BY MR. HUNKER:

- Q. Mr. Johnson, Mr. Bear made a suggestion to the Examiner with regard to the formula that would be more acceptable to them and asked that a hundred percent of the number of acre-feet in the pool be attributed to the second phase. Do you have some comment that you would like to make with regard to the fairness of this recommendation?
- A. Yes, sir, I do. To begin with, when we started into this we were trying to play on a fair and equal level. We had not changed the formula as set out in the Engineering report, not the Engineering report but the unit operating

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agreement and in our exhibits this time we had that prerogative and did not accept it because we felt like that in good faith we had negotiated previously and had agreed previously to that formula, now we are seeing recommended changes. Why? All right, let's look at that change and why it occurs. Under the present unit agreement, let's look at the unit operating agreement as presented in testimony. We have a position where, quote, if we accept Burk's position.

MR. STAMETS: What page are you looking at?

A. I'm looking at the next to the last page. These pages are not numbered. Forget the accounting section.

MR. COOTER: It's the second page of Exhibit E?

A. Yes, it is the one entitled, "Continued Exhibit E".

Okay, it becomes very apparent when you compare that figure that says, okay, that we are in phase-two, Dalport should have then under their recommendation forty-two point seven, three, two, five percent. Now, if we take the acrefeet position, Dalport's position is increased to forty-six or four percent higher. What happens to the others? McClellar, according to this recommendation, twenty-two point two, one percent. McClellan under only acre-feet, nineteen point five, five. So what McClellan is reduced, Dalport is gaining. I don't think the changes are that drastic and, well, Amoco moves from eleven to ten, Exxon moves from twenty-one, well, they're virtually flat, twenty-one point two, five, twenty-one

point two, two, five.

I strongly object to the use of only acre-feet. We could have played the same game, I could have come in and said, okay, let's play ninety percent ultimate primary because we've got twenty-five percent ultimate primary and we will use, we'll use ten percent on acre-feet and we'd have ended up with a twenty-four percent participation factor. I don't think it is fair that way, though. We had agreed previously and we stick with our agreements in that regard. The only thing we ask is that these things be updated to a more realistic view point and acre-feet doesn't do it.

MR. STAMETS: Any other questions?

Just one thing. Mr. Johnson, you were quoting some percentages based on acre-feet alone, is that in the Engineering report?

A. No, sir, it is in a letter that was put out by the Engineering Subcommittee, dated June 27, 1973 and actually the history of this thing was that it was prepared and it was assumed that everything was forty acres and then we found that well, everything is not forty acres. There are some that are forty point one, there are some that are thirty-eight point six and such as that so it was corrected and the percentages then were set out in that. Would you like a copy of this?

MR. STAMETS: I certainly would like to have that.

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(THEREUPON,	a	discussion	was	held
off the reco	ar.	3.)		

MR. STAMETS: Mr. Johnson, you were referring to some acre-feet figures in a letter there. I wonder if you would like to put that in evidence?

A. Yes, sir. This is actually identified on our Exhibit Number One as back in the parameter Double L-Queen field and would be apparently on pages fifteen and sixteen according to the index. It would be on page sixteen. This does comply with the letter of June 27, 1973 as best as I can determine.

- (Mr. Hunker continuing.) Comply or conform?
- Conform.

We will offer it as Exhibit H. MR. HUNKER:

MR. STAMETS: That has been marked now as

McClellan's Exhibit H. Any objection?

> MR. COOTER: No objection, sir.

MR. STAMETS: The exhibit will be admitted.

(THEREUPON, McClellan's Exhibit H was

admitted into evidence.)

MR. STAMETS: Are there any other questions of Mr. Johnson? He may be excused.

(THEREUPON, the witness was excused.)

MR. STAMETS: Anything further in this case?

Mr. Hunker, do you have a statement?

MR. HUNKER: Yes, sir, I do have a short statement.

The basic premise of the proponents is that we are now in phase-two of this proposed waterflood program. We are not in phase-two unless the Commission agrees that the relative values that have been assigned by Burk are fair, reasonable and just. It is incumbent upon the Commission to make a determination that an appropriate number of working interest owners and royalty interest owners have, in fact, executed the agreement or ratifications of the agreement and in order to make a determination that a sufficient number of people have actually signed, the Commission must first decide which formula submitted is fair, reasonable and just and if we are in phase-two already, then the determination can be made as to whether or not an appropriate number of people have signed.

However, if the recommendations of Mr. Johnson are accepted, then we are not in phase two and the Commission must determine whether or not the required number of people have signed or ratified the agreement.

There is a serious legal problem here that I'm sure counsel for the Commission is aware of and members of the staff undoubtedly are aware of it. We had an agreement which said that as of January 1st, 1976 it terminated ipso facto unless it had been approved. Recommendations have been made that would change the effective date of the unit and I want

you to bear in mind that those changes admittedly have not been approved by those parties who have previously ratified the agreement.

We appreciate the Commission, Mr. Stamets, your having given us an opportunity to make a further study, for at the time of the initial hearing we did not have time to make this study. We hoped that an Engineering Subcommittee meeting would be called so that a study could be made of the problem in view of the increased price and we had attempted today to establish under 65-14-6 what we believe to be the more correct relative value of each tract in the unit area.

We believe that the recommendations that we have made more clearly represent a fair, equitable and reasonable basis for unitization. We feel that the formula upon which the working interest parties have had an understanding, not legally, but certainly an understanding, should form the basis for unitization.

And with those remarks I want to thank you and I will close. Thank you.

MR. STAMETS: Mr. Cooter?

MR. COOTER: Mr. Examiner, first, the figures as set forth in the plan for unit operations, as evidenced by the exhibits of the operating agreement, the unit operating agreement, are not figures supplied by Burk. Burk is only the designated operator.

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The phase-one formula, as well as the phase-two formula are equally arbitrary. There is nothing sacrosanct about phase-one, about the fifty-fifty. Nothing is sacred about when the changeover occurs into phase-two. The same could be said about what is phase-two formula. These were matters of delicate negotiation between all of the parties and considering together, all of it together, they decided that as written, that that provided for a fair, just and equitable allocation of the production.

Now, what the McClellan group is suggesting, that taking the benefits of all of the negotiations, there is only one factor that can be changed to enlarge their interest and that is the one that they suggest that now there is a new economic level.

Well, the primary or the phase-one formula wasn't strictly determined on what would be recovered under primary production. There were other factors that went into that. Likewise, phase-two takes into consideration to some extent what the recovery of primary has been and will be. So these are formulas that are just settled by negotiations between the parties and represent to the satisfaction of over seventy-five percent of the working interest owners and of the owners of royalty and overriding royalty and production payments. The best formula that they can arrive at for the allocation of the production yet to be had.

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We submit that there has been a change in the unit plan from the voluntary unit as contemplated to the statutory unit now sought and the changes we have proposed to the unit agreement merely reflect that. They do not in any way change the plan for unit operation. All of the percentages remain as set forth, except that the effective date of the unit will be as determined by this Commission under its statutory power.

Over seventy-five percent of both classes have to approve that plan. If it is the same plan that they have now approved, we believe no further ratifications are necessary. That is the tract participation, the interest participation and the like. It is only if any of those participation formulas are changed and it is a new ball game, then it all has to go back and seventy-five percent of both classes again have to ratify the Commission order or it is not effective.

If the plan that has been adopted considering the phase-one fifty-fifty formula, it could have been anything else or we could have used a one-phase formula throughout this whole operation and what was that one phase, still over seventy-five percent of all of the owners chargeable with the payment of all of these expenses, that is not just the monthly expenses but the equipment and everything else that will be involved have ratified this plan and we submit that, therefore, the request is made and it is a fair, just and

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protects correlative rights and complies with all of the safeguards that the statutes require for that and we urge that it be adopted. Thank you.

MR. STAMETS: Anything further in this case?

The case will be taken under advisement and the hearing will be adjourned.

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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand 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.

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 55% heard by me on 1976

Lichard Examiner Mexico Oil Conservation Commission

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BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico December 3, 1975

EXAMINER HEARING

IN THE MATTER OF:

Application of Burk Royalty Company) for statutory unitization, Chaves County) New Mexico.

CASE 5596

BEFORE: Richard L. Stamets, Examiner

TRANSCRIPT OF HEARING

APPEARANCES

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Legal Counsel for the Commission

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6	For	Exxon	Corp:
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	MR.	STAMETS:	The	Hearing	will	please	come	to
order.								

At this time we will call Case 5596.

MR. CARR: Case 5596, application of Burk Royalty Company for statutory unitization, Chaves County, New Mexico.

MR. STAMETS: Call for appearances in this Case.

MR. COOTER: Paul Cooter with the firm of Atwood and Malone in Roswell appearing on behalf of the applicant, Burk Royalty.

MR. STAMETS: Ask for other appearances, please.

MR. HUNKER: George Hunker of the firm of Hunker-Federic, P.A., Roswell, New Mexico, appearing on behalf of McClellan Oil Corporation, L. C. Harris, Addy Corporation, R. M. Patterson, Bob Graham and Penrod Toles.

MR. STAMETS: Other appearances?

MR. REAVIS: Harley Reavis for Exxon.

MR. LAMB: Lamb, Metzgar, Franklin and Lines, P.A., Larry Lamb on behalf of Corine Grace.

MR. STAMETS: Any other appearances?

MR. CRONQUIST: I'm Ralph O. Cronquist appearing on behalf of the applicant, Amoco Production Company.

MR. TODD: W. L. Todd, Junior for Dalport Oil Corporation.

MR. STAMETS: Mr. Cronquist, are you with Amoco?
MR. CRONQUIST: yes.

MR. STAMETS: I would like to have everyone who will be a witness or is a prospective witness in this Case to stand and be sworn at this time, please.

(THEREUPON, the witnesses were duly sworn.)
MR. STAMETS: You may proceed, Mr. Cooter.

JON BEAR

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

DIRECT EXAMINATION

BY MR. COOTER:

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- Q Would you state your name for the record, please, sir?
 - A. Jon Bear.
 - Q By whom are you employed, Mr. Bear?
 - A. Burk Royalty Company.
 - Q In what capacity?
- A. Petroleum engineer and vice president of the company.
- Q Would you please relate briefly your education and your professional experience?
- A. I graduated from Texas Tech in 1957 with a Bachelor of Science in petroleum engineering. Since that time I have been employed by Burk Royalty Company in various capacities in an engineering aspect, well completions, field supervision,

and primarily in secondary recovery.

- Q. Have you previously testified before the New Mexico
 Oil Conservation Commission?
 - A. Yes, I have.
 - And your qualifications then are a matter of record?
 - A. Yes.

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- Q Please relate briefly what Burk Royalty Company seeks by the application in this Case?
- A. Statutory unitization of the Double L-Queen field in order that the secondary reserves we believe to be thereunder can be recovered.
- Q After a prior hearing held pursuant to the statute and the regulations of this Commission, the Commission entered its Order R-5004 approving the unit agreement for the Double L-Queen Unit, did it not?
 - A. That is correct.
- Q. And by its Order R-5007, granted Burk Royalty Company as the unit operator permission for institution of a waterflood project in that Unit?
 - A That is correct also.
 - Q. And you were a witness at that hearing?
 - A. Yes, sir, I was.
- MR. COOTER: Mr. Examiner, we ask that the transcript of the prior hearing, together with the exhibits which were offered and received at that hearing, be incorporated in this

hearing at this time.

MR. STAMETS: You are speaking of that hearing which consolidated Cases 5413 and 5454?

MR. COOTER: Yes, sir.

MR. STAMETS: Is there any objection to the incorporation of that record?

MR. HUNKER: We have no objection to the Commission taking judicial notice of the findings that were made in connection with those particular hearings, but we think that our client, for example, asked for continuance of this matter so that we could familiarize ourselves with this proceeding and all that had transpired to that, but time did not permit us to examine everything that is in that transcript. Now, I don't want my clients to be bound by a record that they have never seen, they have never had an opportunity to examine any of the witnesses and we would object to the incorporation of the entire record of those cases in this matter.

MR. LAMB: Mr. Examiner, on behalf of our client,

Corine Grace, we would also object at this time because of the

lack of familiarity with the record and question what the

relevance is at this time, because I find that the pleadings

that I have seen at this point appear to be somewhat un
specific, so we would likewise object for the safety of our

client's protection.

MR. STAMETS: It would appear to the Examiner that

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since this unit has been under consideration for some period of time that no one should be taken by surprise at this point in time by the current application. Nevertheless, Mr. Cooter, your request for the inclusion of the record in the two previous cases into this case is denied.

MR. COOTER: Following Mr. Hunker's suggestion, I would ask the Examiner to take notice of that prior hearing and exhibits. I would like to make one correction to the transcript of the prior hearing which appears on Page Ten.

MR. STAMETS: Just a second, Mr. Cooter, Page Ten on what date?

MR. COOTER: April 16.

MR. STAMETS: You say Page Ten?

MR. COOTER: Yes, sir. Down towards the bottom of the page Mr. Christy asked the question: Did you design the unit so as to maximize recovery of the hydrocarbons underlying the unit area and to burn that place? I would like to suggest that Mr. Christy did not really intend to imply arson and certainly this witness didn't. I don't know what was intended, but certainly that wasn't the word.

Q. (Mr. Cooter continuing.) Back to where we were, please, Mr. Bear. Attached to the application file in this case and marked as Exhibit One, was the unit agreement for the Double L-Queen Unit, was it not?

A. Yes.

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- Q. That was the same unit agreement that was filed with and presented in the prior case which resulted in the Commission's Order R-5004 approving the unit?
 - A. Yes, it is.
- Q Exhibit A attached to that unit agreement is a map, is it not?
 - A Yes, sir.
 - Q. That shows the area of the proposed unit?
 - A. Correct.
- Q And by that exhibit there is reflected a total of one thousand, two hundred and thirty-one point four, four acres or forty-six point one two percent of the unit being Federal lands?
 - A Correct.
- Q One thousand, one hundred twenty point oh two acres, or forty-one point nine five percent of the proposed unit being State lands?
 - A. Correct.
- And three hundred and eighteen point six four acres, or eleven point nine three percent of the proposed unit being fee-owned lands, private leases?
 - A That is also correct.
- Q. Is there a common source of supply underlying the proposed unit area?
 - A. Yes, there is.

Q What is that?

A. It's a Queen sand and it is called the Double L-Queen field.

- Q Has that been reasonably defined by development?
- A. Yes, sir, there are approximately fifty-five producible wells and I believe eleven dry holes that define the field.
- Q Relate briefly, if you would, the type of pool this is, its drive mechanism, the underlying geology and describing the porosity and permeability of the producing formation?
- A. It is a stratigraphic trap trending generally south-easterly-northwesterly. It has a porosity of about twenty-one percent, the permeability is about one hundred and twenty millidarcies, the primary producing mechanism was basically gas cap and solution gas drive.
- Now let me direct your attention to an instrument entitled proposed Double L-Queen Field Unit, second edition of the Engineering Committee report dated October 1, 1973.

 I believe this was offered and received by this Commission in the prior hearing and marked as Exhibit Number Seven?
 - A. Yes, it was.
- Q. Attached to that report were a series of maps, were they not?
 - A. Yes, sir.
 - Q. Let me direct your attention to -- were there

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isopach and structure maps attached?

- A. Yes, an isopach structure map and also a map indicating the proposed water injection wells.
- Q Was Mr. McClellan or his engineer included on this engineering committee?
 - A. Yes, they were.
 - Q That prepared this report?
 - A. That prepared this report.
- Q Also attached to that report were some projected decline curves, were they not?
 - A. Yes, sir.
- Q Since that report was prepared back in 1973, some two years ago, do you know whether or not those projected decline curves have proven to be accurate?
- A. To my knowledge they are still relatively accurate, yes, sir.
- Anticipating what may be an important issue in this Hearing, what was the ultimate primary recovery estimated to be by that committee as reported in that report?
- A. A million, four hundred and seventy thousand, seven hundred and fifty-eight barrels, the ultimate primary.
 - Q That was the projected economic recovery level?
- A The ultimate primary reserves economically recoverable, yes, sir.
 - Q At the time that this report was prepared was that

figure agreed to by all the working interest owners on the engineering committee?

A. Yes, it was.

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- Q And did that include Mr. McClellan?
- A. Yes, it did.
- Q In your opinion Mr. Bear, is the Double L-Queen Pool susceptible to a waterflood?
- A Yes, sir, there are other Queen floods in the general area that seem to be successful.
- Q So far as you know, your opinion in that respect is shared by all other working interest owners in the proposed unit?
 - A. Yes, it is.
- Attached as one of the exhibits to that engineering report and also marked, I think, as Exhibit Six in that prior Hearing was a map which you testified showed the proposed injection wells for this unit?
 - A. That is correct.
 - O Those were the ones circled in red?
 - A That's right.
- Q. Also offered at that Hearing and received by the Commission were a series of schematic diagrams of all of the proposed injection wells?
 - A. Yes, that is correct.
 - Q. Those schematic diagrams, I believe, were marked as

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Exhibit Four at that time. Also filed with and received by the Commission were the logs of those same wells?

- That is correct. A.
- A series of logs, and those were marked as Exhibit Two?
 - Okay, correct. A.
- Is there water available in the area for this waterflood, proposed waterflood project?
- Not beneath the flood area, but in the general A. vicinity there is water available, yes, sir.
- Should a waterflood project be commenced do you anticipate any problem in procuring the water?
 - No, no problem. A.
 - None other than what might normally be encountered? a
 - Correct.
- Do you know whether or not there is water available Q. for purchase?
 - Yes, there is. A.
- Do you know what the amount of primary recovery has Q. been from this proposed unit area to this date?
- Well, let me answer that in this manner, we have the total production figures up to October the first. At that time there was eight thousand, nine hundred barrels remaining to be recovered to reach the projected primary ultimate figure of a million, four hundred and seventy thousand, seven

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hundred and fifty-eight barrels. We do not have all of the production figures for October and November, but without the McClellan production there has been seven thousand, six hundred and fifty-seven barrels for October and November, so sometime during the month the figure of a million, four seventy-seven, fifty-eight was reached.

- Q And you refer to the "month", are you talking about the month of November?
 - A. What did I say, October and November?
 - Q. Right.
 - A. So sometime during the month of November.
- Q So that to the best of your knowledge, the production from -- well, first production through the month of November exceeds the proposed figure of one point four seven plus?
 - A. Right.
- Q. I would like to now go back and review with you,
 Mr. Bear, the history and what has transpired in the efforts
 to create the unit now under consideration today. When was
 the proposed unit first considered by the various working
 interest owners?
- A. I believe the exact date of the first meeting to consider unitization was June 6th, 1970.
 - Q. What transpired briefly at that time?
- A Briefly, this was an operator's committee meeting, and briefly the operators agreed that a study should be made,

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and charged that a technical subcommittee should be formed and further charged that committee with certain items to put together.

- Q. Basically information about the pool was to be prepared?
 - A. Yes, sir.
- Q Was Mr. McClellan present at that meeting and did he take part in it?
 - A. Yes, he was.
- Q. After that meeting in June of 1970, what occurred next?

A On the fifth and twenty-seventh, seventy-one, another meeting was had and we considered the problem of securing water. At this time another flood was going in to the south of us and it was somewhat ahead of us and they were also securing water and we were trying to determine if it would be feasible for us to join them at that time in securing water, which it turned out it wasn't. We discussed that and also discussed an isopach and structure map which had previously been prepared. And basically that was what we had at that meeting.

- Q Was a study made of the cores and the logs that were then available?
 - A. That's right.
 - Q You mentioned five, twenty-seven, you are talking

about May 27th, 1971?

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- A. Correct.
- Q And was Mr. McClellan represented at that meeting?
- A. He or some of his personnel.
- Q Specifically was Joe Johnson present?
- A Yes.
- Q All right, following the May 1971, when was the next meeting that the operators had?
- A. The next meeting was June 29th, 1972, at which we had a discussion of the acre-feet which had been derived from the isopach map as a parameter, a two-phased participation formula, and we again discussed the isopach map and the net pay, and as I recall, we went through the logs again to see if the isopach map had been prepared properly.
- Q Certain changes were made and approved by those attending?
 - A. That is correct.
 - Q. Was Mr. McClellan present?
 - A. Yes, he was.
- Q. That was June of 1972. Then what was the next occurrence?
- A. On November 17th, '72 we again, we had another meeting and again discussed the net isopach map which had been approved by all except Mr. McClellan and basically determined that we should prepare a technical report, including

a revised isopach map, and that was basically what transpired at that meeting.

- Q Were you a member of the engineering committee that prepared that first technical report?
 - A. Yes.

- Q. What were the estimated primary recovery to the economic limit as set forth in that first technical report?
- A. In the first one it was a million, three hundred and twenty-nine thousand, seven hundred and eighteen barrels.
 - Q. What was the date of the first report?
 - A. December the sixth '72.
 - Q And when was the next meeting?
 - A. March 21st, 1973.
- Q. What was considered by the operators at that time?
- A. At that time we again discussed the ultimate primary and the secondary parameters were discussed. At some point along here we had prepared a table of parameters and we talked about this table and tried to determine which one would be most suitable for a flood, and we also decided to bring the production history and the decline curves up-to-date.
 - Q. Was Mr. McClellan present at that meeting?
 - A. yes, sir, he was.
 - Q As well as his engineer, Mr. Johnson?

A Yes, sir.

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- Q Following that meeting in March, when was your next committee meeting?
- A. We had a meeting then April the 4th, '73 which was strictly a technical committee at which we went through all of the decline curves to determine what we thought would be the ultimate primary production.
- Q Was Mr. Johnson present at that meeting representing Mr. McClellan?
 - A. Yes, sir.
- Q All right, then after the meeting on April 4, 1973, did there follow some additional meetings and if so, when?
- A. We had another meeting then May 1st, 1973 to discuss basically the participation formula and we discussed primarily a two-phased formula, and the unitization and operating agreement.
 - Q. Was Mr. McClellan present?
 - A. Yes, he was.
- Q At that meeting I believe a technical committee was directed to go back and redetermine the acre-feet?
- A. Yes, it was determined at that meeting that the previous map was not now acceptable, although it had been and the engineering committee was charged with redoing the isopach map, or rather the acre-feet from the isopach map by a different method.

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Q.	Did	the	techr	nical	subco	ommittee	mee	et and	l make	a
redetermin	natio	n of	the	acre-	-feet	within	the	unit	bound	ary?

- A. Yes, we did on May 9th and May 18th.
- Were you a member of that committee? Q.
- Yes, I was.
- Was Mr. Johnson also a member of that committee? Q.
- Yes, he was. A.
- Did the subcommittee perform its delegated task? Q.
- Yes, we did.
- How were the acre-feet within the unit boundary then determined?

We had an enlarged version of the isopach map, we A. marked it off in two-and-a-half acre grids, we took a point on each corner of the two-and-a-half acre grid and determined, with everybody there looking at each point, as I recall, what the thickness of the sand was on each corner and also we picked a point in the middle of the two-and-a-half acre grid, and to make our longer story a little bit shorter we averaged it up and that was figure that we came up with for the acre-feet.

- Q. After the unit subcommittee performed this, was a letter ballot mailed to the various working interest owners?
- I think at that time we mailed out a ballot, yeah, to the working interest owners, or just for the map, I believe we mailed a ballot to the technical committee to ask them to approve of the grid method and the map.

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seventy-five percent.

Q.	Then when was your next meeting of the operators?
A.	September 12th, 1973.
Q.	What transpired at that meeting?
A.	We talked about the participation formula and at
this time	the technical subcommittee had approved the map and
the operat	tors again approved the map, and we talked about the
two-phase	formula again, and also other aspects of a unit
agreement	and unit operating agreement.
Q	Let me direct your attention to the participation
formula de	etermined for the second phase of the proposed unit
operations	s. What was that formula?
A.	It is fifty-five percent ultimate primary recovery
and forty	-five percent acre-feet.
Q.	Who made the motion that that be the formula
establishe	ed for the second phase of the unit operations?
A.	Jack McClellan.
Q.	And was that motion then adopted?
Å.	Yes, it was.
Ď.	It was adopted unanimously, wasn't it, by all of
the working	ng interest owners?
A.	Yes, it was.
Q	Also at that meeting what was the voting procedure
determine	d to be for phase-two operations?

Well, the voting, oh, as to who approves what, was

- And was that also adopted by unanimous vote? Q.
- Yes, sir. A.

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- That was seventy-five percent of the phase-two a working interest owners?
 - That is correct. A.
 - As their interests were shown? Q.
 - A. Correct.
- There was yet another meeting of the committee, U the operators' committee, was there not? When was that?
 - January 8th, 1974. A.
 - And what transpired? Q.
- We discussed the unit agreement and unit operating A. In between here someplace we had also revised the ultimate primary, we changed it from a million three figure whatever it was exactly, to the million, four seventy, seven fifty-eight. We finalized the participation formula, basically finalized the unit agreement and the unit operating agreement.
- Q. The participation formula, that is during the phase-one and phase-two remained unchanged?
 - They did. A.
 - And that had been agreed to?
 - That had been agreed to earlier. A.
- Q. All right. Was Burk Royalty directed to prepare the final drafts of the unit agreement and unit operating agreement at that time?

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	A.	Yes,	we	were	at	that	time,	and	also	to	mail	out
a	letter	ballot	. se	ecuri	ng (everyo	one's	appro	val	that	this	was
t1	ne fina	l draft										

- Did you prepare and mail such letter ballots? Q.
- Yes, we did. A.
- I hand you what I have marked as Exhibit Five for a this Hearing this afternoon, is that one of those letter ballots?
 - A. Yes.
- All right. Page one is a letter from Burk Royalty Q. signed by you, to the working interest owners and then follow a series of pages showing acceptance by various people?
 - A. Right.
- Would you please go through those subsequent pages and who indicated their desire to unitize at that time?
- Well, as I recall, we had at that time ninety-seven A. and a half percent approval of all of the working interest owners to unitize. We had also some that are objecting today approved and some of those are Addy Corporation, Robert L. Graham, L. C. Harris, W. W. LaForce, and McClellan Oil Corporation.
- Attached as Exhibit Number Two to the application 0. filed here, is the unit operating agreement. unit agreement was, this agreement was also subject revision and compromise during this extended perj

negotiations?

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- A. Yes, it was.
- Q Are the operating costs allocated under the two separate phases?
- A Yes. As long as the phase-one is in effect strictly the operating costs were to be paid for under the phase-one percentages. Even if it was under phase-one construction costs or any expense pertaining to the waterflood would be paid for under phase-two. Also the equipment would be adjusted under phase-one, as long as it were in effect and when phase-one went out, it would be readjusted to the phase-two percentages.
- Q. Now that is all as provided for in paragraph ten point three in the sub-paragraphs which commence on page eight of the unit operating agreement?
 - A. Yes, that is correct.
- Q. With the production that has been had through the month of November, if this unit were formed pursuant to the application, phase-two operations would now be in effect?
 - A. Yes, sir, they would.
- Q. Have the unit agreement and the unit operating agreement been ratified by the owners of working interests required to pay more than seventy-five percent of the cost of unit operations and unit investments under phase-two?
 - A. Yes, sir, they have.

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- Q What is the percentage, if you know, of the owners of working interest under phase-two who have not ratified?
 - A. Well, it's twenty-seven and a half, roughly
 - 0. I'm asking under phase-two.
 - A. Oh, excuse me, twenty-two and a half, roughly.
- As shown on the revised Exhibit E, ratifications have not yet been obtained from the ones listed in the application, together with Corine Grace, Amerada-Hess Corporation, Cleary Petroleum Corporation, I believe, are there any others?
- A Yeah, there is one other, Walters Amusements, Incorporated.
 - Q I'm not sure we didn't list them.
 - A. Well, we may have, I don't recall.
- Q. No, we did not. Walters Amusement. Have you had any discussions with those people?
- A I have had discussions with all of them except

 Grace. Cleary and Amerada-Hess say they have been approved

 but they don't seem to find them now to get them in the mail,

 they are pigeonholed somewhere apparently. I have also had

 a considerable amount of discussion with Walters Amusement

 and that company's representatives and they assure me that

 they will either join the unit or make some other arrangements

 whereby the property will come into the unit.
 - Q I have what I have marked as Exhibit Number Six

in this Case, copies of the ratifications from all of the working interest owners other than those that you have testified about and the ones that are set forth in the application.

A Yes, sir.

- Q These are the ratifications from all of the people who have ratified?
 - A. Copies thereof.
- Q. I think there might be some question, referring to the revised Exhibit E, for a couple of these people, and I would like to clarify that. Roark and Hooker are listed together and ratifications appear from the individuals, R. T. Roark, L. F. Hooker and J. C. Monk.
- A. J. C. Monk is a member of their firm although he doesn't show in the company title.
- Q. Also clipped together and marked as a joint exhibit, there as one exhibit, Exhibit Number Seven, are the ratifications from the owner of royalty or overriding royalty interests?
 - A. Correct.
- Q. Have more than seventy-five percent of the owners of royalty interests or overriding royalty interests ratified the unit agreement and unit operating agreement?
- A. The royalty interest is, except two tracts, a hundred percent signed. The overriding royalty interest now

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- Q Okay, would the State of New Mexico acting through its Commissioner of Public Lands have consented to the unit?
 - A. Yes.
- Q And that letter is attached as Exhibit Three to the application?
 - A. Right.
- Q Likewise the preliminary approval by the USGS was attached as Exhibit Four?
 - A. Correct.
- Q Mr. Bear, in your opinion, is the unitized management operation and further development of the Double L-Queen Pool reasonably necessary in order to effectively carry on secondary recovery operations?
 - A In my opinion it is, yes, sir.
- Q. And is it necessary to substantially or will it substantially increase the ultimate recovery of hydrocarbons from the pool?
 - A. Substantially, yes, sir.
 - Q. What is the estimated amount of secondary recovery?
 - A. One million, eight hundred and sixty-five barrels.
- Q Mr. Bear, in your opinion is the proposed waterflood and method of operation as applied to the Double L-Queen Pool feasible?
 - A Yes, sir, it is.

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Q	Will	the	same	prev	ent	waste	and	result	wit	: h
reasonable	e prol	oabil	lity :	in th	e i	ncreas	ed re	ecovery	of	substan-
tially mo:	re pro	oduct	tion :	from	the	pool?				

- A. Yes, it will.
- Q Will the estimated costs of such secondary operations exceed the estimated value of the additional recovery?
 - A In our opinion it certainly will.
 - Q. The costs will exceed the --
- A. No, I'm sorry, I'm answering backwards. The revenue will substantially exceed the cost.
- Q Will the creation of the unit and the adoption of the proposed plans of operation benefit the working interest owners and royalty owners of the production within the pool?
 - A. Yes.
- Q Burk Royalty is the designated operator in the unit agreement and unit operating agreement?
 - A. That is correct.
- Q As operator has Burk Royalty made a good faith effort to secure voluntary unitization within the pool?
 - A. We believe we have.
- Q Will the participation formulas as set forth in the agreements allocate the produced and saved production hydrocarbons to separately owned tracts in the unit area on a fair, reasonable and equitable basis?
 - A. We believe they will.

- Q. And in your opinion does the same protect correlative rights of all participants in the area?
 - A Yes, sir.

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- Q In your opinion would the, absent the proposed waterflood and secondary recovery operations, would the additional production of one point eight billion barrels be lost?
 - A. Yes, it would.
- Q So that the adoption of the plan proposed by these agreements would prevent both physical and economic waste?
 - A. Yes, sir.

MR. COOTER: Mr. Examiner, we believe that the agreements as filed with the application contain all of the provisions called for in Section 65-14-7. I do not propose to question the witness at this time about those, other than to ask that if there be a question or if you would like me to ask the witness if they do include those provisions I will do so.

- MR. STAMETS: I think that would be a good idea.
- Q (Mr. Cooter continuing.) Mr. Bear, do the proposed unit and unit operating agreements as filed with the application contain a legal description in terms of surface area of the pool to be operated as a unit?

All right.

A. Yes.

MR. COOTER:

And the vertical limits to be included therein?

That is the, quote, unit area, close quote, as

Do those agreements contain a provision governing

how the costs of unit operations, including capital investments

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Yes.

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5	A. Yes, that's right.
6	Q. Do those agreements contain a statement of the
7	nature of the operations contemplated?
8	A. Yes, they do.
9	Q That is the waterflood operations?
10	A. Yes.
11	Q Do they allocate to the separately owned tracts in
12	the unit area, the oil and gas that is produced from the unit
13	area and is saved?
14	A. Yes.
15	Q Do those agreements contain a provision for the
16	credits and charges to be made in the adjustment among the
17	owners in the unit area for their respective investments and
18	wells, tanks, pumps, machinery, materials and equipment
19	contributed to the unit operation?
20	A. Yes, in the operating agreement.
21	Q. Those are the charges about which you previously
22	testified?

Yes, sir.

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shall be determined and charged to the separately owned tracts?

- A. Yes, sir, they do.
- Q And how such costs shall be paid?
- A Yes, sir.
- Q Does that provision include a provision when, how, and by whom the unit production allocated to an owner who does not pay his share of the cost of the unit operation be charged to that owner?
 - A. Yes, it does.
- Q Do those agreements contain a provision for carrying any working interest owner on a limited basis payable out of production?
 - A. Yes, it does.
- Q. Upon such terms and conditions which you believe to be just and reasonable?
- A. Yes, sir.
- Q As do the more than seventy-five percent of the working interest owners who have ratified under the phasetwo formula?
 - A. That is correct.
- Q Do those agreements contain a provision designating Burk Royalty Company as the unit operator?
 - A. Yes, they do.
 - And provide for the supervision and conduct of the

unit operation?

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- A. That is correct.
- Q Including the selection, removal or substitution of an operator from among the working interest owners?
 - A That is included also.
- Q Do those agreements contain a provision for the voting procedure for the decision of matters to be decided upon by the working interest owners in respect to which each working interest owner has a voting interest equal to his unit participation?
 - A. That is correct.
- Q By this application when do you seek commencement of the unit operations?
- A. We would like to have it effective on or before January 1, 1976.
- Q Under the terms of the agreement, absent an effective date of the unit, prior thereto the agreements terminate by their own terms?
 - A. That is correct.
- Q And if that should occur then the remaining or the proposed secondary recovery of one point eight million barrels will be lost?
 - A. It will be lost.
- MR. COOTER: Mr. Examiner, we offer at this time as exhibits for this hearing, Exhibits One through Four which

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were attached to the application, Exhibit Number One being the proposed unit agreement; Exhibit Number Two being the proposed unit operating agreement; Exhibit Number Three being the letter of approval by the Commissioner of Public Lands for the State of New Mexico.

MR. STAMETS: Would you hold it there a minute? MR. COOTER: Exhibit Four being the preliminary approval by the USGS in Denver. Exhibits Five through Seven which have been referred to here, Exhibit Five being the letter ballot which had been mailed by Mr. Bear and signed by some of those who are now objecting to the formation of this 12 unit; Six being the ratifications. I believe Six was by the working interest owners and Seven by the royalty interest and overriding royalty interest owners. And I might state that while they are bundled together the royalty interest and overriding royalty interest owners are just alphabetized. have the originals if there is any question about the copies.

MR. STAMETS: Okay, I think you should mark Exhibits One through Four, they should be stamped, if they are not.

MR. COOTER: And in addition to that we offer the Exhibits Two, Four, Six and Seven which were offered and received by this Commission at the prior hearing on April 16th, Exhibit Two being the logs; Exhibit Four being schematic diagrams of the proposed water injection wells; and Exhibit Six being a map with the proposed injection wells marked; and

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report of October 1, 1973.

of any of these exhibits?

document withdrawing their joinder.

MR. HUNKER: Yes, Mr. Examiner, we have no objection to the admission of Exhibits One through Four. We hadn't seen until today Exhibit Five, the ballot. The ratifications that are submitted under Exhibit Six we object to because Mr. Albert J. Black by a letter dated December 2nd has withdrawn his joinder. He and his wife have joined in that

MR. STAMETS: Is there an objection to the admission

Exhibit Number Seven being the geological engineering

We have had no opportunity to examine the witness who presented Exhibits Two, Four, Six and Seven in the earlier hearing and as a consequence having not been represented at that time at that particular hearing, nor having been present, we would object to those on the ground that we did not have the proper opportunity to examine the witnesses and adduce testimony at that particular time.

MR. COOTER: Then let me, if I may, withdraw my tender of Exhibits Two, Four and Five offered in the prior hearing.

MR. STAMETS: Two, Four and Six?

MR. COOTER: Two, Four and Six. I believe I have layed proper foundation for the introduction of the engineering report at this hearing.

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MR. HUNKER: We have no objection to Number Seven, really.

MR. COOTER: Let me withdraw temporarily, Exhibits Two, Four and Six and I will question this witness about those.

For ease of convenience, if I may, I'm marking an additional one. I have marked a copy of that engineering report as Exhibit Number Eight in this Case. As I understand it, that concludes the list of exhibits which Mr. Hunker has not taken objection to.

MR. HUNKER: That is correct.

(Mr. Cooter continuing.) Now, Mr. Bear, I will place in front of you --

MR. STAMETS: Hold it now. I'm getting a little confused here. We have had a tender of your exhibits One through Eight in this Hearing?

> MR. COOTER: Yes, sir.

MR. STAMETS: And Mr. Hunker has objected to Five, Six and Seven -- how about Exhibit Number Eight, Mr. Hunker?

MR. HUNKER: We don't object to Number Eight, being the engineering report dated October 1, 1973.

MR. STAMETS: Mr. Hunker, what is the relationship of this letter from Albert J. Black to Exhibit Number Six?

MR. HUNKER: His name appears as one of those working interest owners who have reportedly joined and

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MR. STAMETS: His percentage interest and everything would be reflected in the unit agreement that we have on file here?

> MR. HUNKER: That is correct.

MR. STAMETS: Mr. Hunker, we're noting this letter that you have submitted here and expecting additional testimony on it, I'm going to admit all of these exhibits which have been presented at today's hearing by the applicant.

> MR. HUNKER: For whatever they are worth. (THEREUPON, Exhibits One through Eight were admitted into evidence.)

MR. STAMETS: I'm going to return this letter to 14 you at this time, Mr. Hunker. You may enter that at a later time in the Hearing.

MR. LAMB: Mr. Examiner, they appear, at least to myself, somewhat confused, you said that Exhibits One through 18 Eight which were tendered and you were admitting. It was 19 my understanding that counsel for the applicant had withdrawn 20 |a portion of those exhibits.

MR. COOTER: No, I withdrew temporarily my tender of Exhibits marked Two, Four and Six tendered at the April 16 23 Hearing.

> MR. LAMB: Fine, thank you.

I have now marked as exhibits in this

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case, Exhibits One, Two, Three and Four which were filed with the application.

MR. STAMETS: You may proceed.

- A. A map indicating the unit outline of the Double L proposed Queen unit. It has a certain number of wells with a red circle around them which are the proposed water injection wells or the waterflood.
- Q This exhibit might be somewhat duplicative of Exhibit Number Eight, that is the same map that is included in the engineering committee's report?
 - A. That is correct.
- Q And the wells that are shown on here are the proposed water injection wells, the outline is the outline of the proposed unit boundary?
 - A That is correct.
- Q Okay. Let me hand you a series of single pages with a paper clip and I ask you to identify what I have marked as Exhibit Number Ten at this Hearing.

MR. STAMETS: Let's hold it a second, do you have another copy of that map so the Examiner could have one?

MR. COOTER: it's the last page.

MR. STAMETS: I just wanted to confirm that it was.

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MR. COOTER: Okay, yes, sir.

MR. STAMETS: Go ahead.

- Q (Mr. Cooter continuing.) I place before you what I have marked as a single Exhibit Ten even though it comprises several different pages, what is that, please, sir?
- A. It is a schematic diagram of each one of the proposed water injection wells, showing where the casing is set, where the perforations are in the casing, sacks of cement used on the casing, where the tubing is set and where the packer is proposed to be set on the water injection wells.
- Q. At the same time let me hand you what I have included within one rubber band and marked as a single exhibit, Exhibit Eleven, what is that?
- A These are -- let me say this: I think in the prior hearing we had logs on only the water injection wells which correspond to the schematics. This is a copy of all of the logs that we have in our possession, which would include the logs of the water injection wells, but they are a copy of whatever type of a log we have.
- Q But they do include the logs of all of the proposed injection wells?
 - A. Yes, if they were logged.
- MR. COOTER: Now, Mr. Examiner, we offer exhibits Nine, Ten and Eleven.
 - MR. STAMETS: Is there an objection to the admission

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MR. HUNKER: Can we look at them?

MR. STAMETS: Sure.

MR. HUNKER: No objection.

MR. STAMETS: These exhibits will be admitted.

(THEREUPON, Exhibits Nine, Ten and Eleven

were admitted into evidence.)

MR. COOTER: That concludes my direct examination of the witness.

MR. STAMETS: Are there questions of the witness?

MR. HUNKER: Yes, Mr. Examiner, I have a few

questions I would like to ask Mr. Bear.

CROSS EXAMINATION

BY MR. HUNKER:

- Mr. Bear, at the time that the engineering Q. study was completed and the second edition of the committee report was prepared, dated October 1st, 1973, who was purchasing the production from the Double L-Queen field?
 - As I recall, Navajo Refining Company. A.
 - What were they paying for the oil at that time? Q.
- I believe the figure in the report is three Three seventy-seven, that's the figure in the report.
 - Is that a net figure or is that a gross figure? Q.
 - That is a net after taxes. It would be gross A.

to the entire interest.

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- Q. And what is the price being paid by Navajo out there at the present time?
- A. Slightly in excess of twelve dollars, I can't give you a dollar-cents figure.
- Q. Does the increase in price have anything to do with the economic limits of this particular pool?
- A. Yes, the increase and price does, so does the operating expenses.
- Q. There is a difference now from four-dollar oil to twelve-dollar oil?
 - A. Okay.
- Q. What increase percentage-wise is there in the operating costs?
- A. I have not sat down and composed a figure. Just generally throughout the oil industry I would say about three to one.
- Q So you don't know what your AFE is going to be in connection with the equipment that you have to buy in connection with this project, is that correct?
- A. We have not put out bids as of yet because the unit is not in effect.
- MR. STAMETS: I would like to clarify the answer to your previous question, Mr. Hunker. You said three to one, oil is up three dollars for every dollar of increased

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operating costs or vice versa?

A. No, a string of casing that used to cost a dollar a foot now costs three dollars a foot.

MR. STAMETS: Now, I'm not sure that you answered Mr. Hunker's question.

- A. Well, maybe I misunderstood the question.
- Q (Mr. Hunker continuing.) Are you going to say that it costs you three times as much today to institute that flood as it would have if you had started it in 1973?
- A. I understood you to ask me about the operating expenses and I said generaly prices are up approximately that much.
- agreement, is there anything in there that actually compels

 Burk or any of the other working interest owners to undertake
 this waterflood program?
 - A That compels us to?
- A I would have to say, yes. Once we sign ratification to the unit agreement we are committing ourselves legally.
- Q At what time are you compelled to institute the flood?
- A. At the time that it has been approved by all of the regulatory bodies and at the time that the unit agreement

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says will be the effective date, which I can't quote word for word right now, but there is an effective date set out in the unit agreement, so many days after all of the approvals of regulatory agencies have been secured.

- Q Should the Commission approve your form of unit agreement, how long would it take you to get out the AFE for this project?
 - A. I would say thirty days.
- Q How long would it take you to get the equipment once the AFE has been approved by the working interest owners?
- A I can't answer that and I don't believe anybody in the oil industry could.
- Q How long will it be before the flood is actually
 instituted?
- A. I can't answer the first one and I can't specifically answer the second one because equipment is -- the suppliers will not now give a delivery date, nor price. They will not now give a firm price.
- Q Do you know of any secondary recovery programs or operations such as this that move before they are even approved into the secondary phase-two portion of the program?
- A I do not know of any just like this one in particular. I know of several that did not have but a single phase that went ahead.
 - Q Isn't it customary in the industry, Mr. Bear, for the

two-phased programs to go into effect before the end of phase-one?

- A. I would say that would be customary.
- Q Is it possible that this proposed unit agreement and proposed unit operating agreement is not fair and equitable to the working interest owners?
 - A. I don't think that is possible, no, sir.
- Q. Do you think the unit is fair to the United States Government?
 - A. I do, and they apparently also do.
 - Q. How did you feel about it in 1973?
- A. Well, as I recall we agreed with the parameters, not the parameters, but the formulas as set forth in the agreement.
- Q. What did you think the position of the USGS would be in 1972?
- A. Well, I don't know that I had any thoughts about what their position would be other than we would approach them with what we thought would be an equitable formula.
- Q Let me refer to a letter which you wrote dated
 September 28th, 1972 to McClellan Oil Corporation, reference,
 proposed Double L-Queen unit in which you say: (Reading.)
 Dear Mr. McClellan: It is the opinion of Burk Royalty Company
 that the USGS is not an uninterested party concerning the
 proposed waterflood. They are, in fact, a very interested

party in view of the fact that they own minerals under only a portion of the flood they could be just as biased as any other participant, we therefore believe it is not to the operators best interest to have the USGS set the formula. We believe that the operators should present a united front when the USGS is approached. (End of reading.) Is that a letter that you sent out over your signature, Mr. Bear?

- A Yes, sir, it is, and I believe that the operators should present a united front to any royalty owner and to all of the working interest owners.
- Q To the extent that those other interest owners are going to be treated inequitably?
- A. No, sir, and we did not propose to treat them inequitably. Mr. McClellan -- the reason that I wrote that letter, if I might say, is because Mr. McClellan suggested that we turn geological work over to the USGS to have them do the work, as I recall the gist of Mr. McClellan's letter.

MR. COOTER: Mr. Examiner, I apologize for interupting counsel's presentation of this cross examination, but since reference was made to the letter I wonder if I might take a look at it and if the witness might look at it?

(THEREUPON, a discussion was held off the record.)

MR. COOTER: Are you offering the letter as an exhibit?

MR. HUNKER: No.

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MR. STAMETS: Go ahead, Mr. Hunker.

to call your attention to Section twenty-three of the unit

this section of the agreement was prepared before or after

chapter sixty-five, fourteen, dash, one of the Laws of the

agreement dated January 1st, 1975 and ask you whether or not

(Mr. Hunker continuing.) Mr. Bear, I would like

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MR. HUNKER: Thank you.

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A. In, I believe, March of '74. Before that time it had about eighteen or twenty revisions, but I think the final form was along about then.

Q Did all of the working interest owners concur in

A. Which section now?

State of New Mexico became effective?

Q. Section twenty-three, effective date and term.

MR. COOTER: Again I apologize for objecting but I'm not sure that I know the effective date of the statute referred to and I doubt if the witness does.

Q (Mr. Hunker continuing.) The statute that I referred to is Chapter two ninety-three of the laws of 1975.

Let me ask this question, Mr. Bear, when was this unit agreement formalized; when was it prepared in its final form?

- A. It was prepared in its final form?
- Q. Yes, sir.

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the revisions that were made in that section with respect to the effective date?

- I tried to keep everybody advised, but I can't answer ves or no to that.
- Are you aware of the requirements of the New Mexico Q. statute with regard to the number of working interest owners who must consent to unitization?
 - The number or the percentage? A.
 - Q. The percentage.
- As I understand it, and you understand I'm not an attorney, but I believe it is seventy-five percent.
- And is the language of the law as follows: No order 0. of the Commission providing for unit operations shall become effective unless and until the plan for unit operations prescribed by the Commission has been approved in writing by those persons who under the Commission's order will be required initially to pay at least seventy-five percent of the costs of unit operations?
 - A. Okay.
- Now, assuming that that is the law which I have just quoted, who has to pay at this time, on December 3rd, 1975, initially seventy-five percent of the costs of the unit operations?
 - The working interest owners under phase-two.
 - Assuming that the plan is adopted, is that correct? Q.

A Yes, sir.

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Referring again to section twenty-three of the Q. unit agreement and to the second paragraph, I call your attention to this language: If this agreement does not become effective on or before January 1, 1976, it shall ipso facto expire on said date, hereinafter referred to as expiration date, and thereafter be of no further force or effect, unless prior thereto this agreement has been executed or ratified by working interest owners owning a combined phase-one participation of at least eighty percent, and continuing at least seventy-five percent of such working interest committed to this agreement have decided to extend said expiration date for a period not to exceed six months, hereinafter called extended expiration date. Now, do you have eighty percent of the phaseone working interest participating owners committed to the unit agreement at this time?

- A. No, sir, we don't.
- Q Can your unit agreement become effective?
- A If this regulatory body says it can, we believe it can.
- Q In your opinion can the regulatory body change the participation factor that is shown in the unit agreement as well as the ratios appearing therein?
- A. As I said, I'm not an attorney and I don't feel qualified to answer that.

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1 If it should develop because of the change in 2 price in the oil that the Commission should determine that the formula should be different, do you think that the Commission should go ahead and change that formula so as to do equity in this matter?

If that is the way the State charged the Commission, A. That was an opinion question, I believe. yes, sir.

MR. HUNKER: I have no further questions of this witness at this time, Mr. Examiner.

Are there other questions of the MR. STAMETS: witness? Mr. Lamb?

Mr. Examiner, at this time I would ask MR. LAMB: leave of the Examiner for a recess. I find myself in an unusual position in that my engineer who has just appeared, the first time we've met, for the first time was called on this morning, because I think Mr. Hunker's office has an engineer we were planning to use in a case in Albuquerque with Mr. Fedric and this is fairly new to us, some of the documents, and we would like to have the opportunity to review these briefly before we decide whether we want to waive or conduct an examination.

MR. COOTER: May I state in that regard, if you are talking about just a few moments, Mrs. Grace, I believe, was represented by Mr. Lamb's partner at the prior hearing in April where all of these documents except for the

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ratifications or copies of the letter ballots were offered
and received as exhibits and I assume that Mr. Lines had an
opportunity to examine them or object to them at that time.

MR. LAMB: Mr. Examiner, we are asking for a very short recess.

MR. STAMETS: About fifteen minutes?

MR. LAMB: Yes.

MR. STAMETS: At this time we will take about a fifteen or twenty minute recess.

(THEREUPON, the Hearing was in recess.)

MR. STAMETS: The Hearing will please come to order. Mr. Lamb, do you have some questions of the witness?

MR. LAMB: Yes, Mr. Examiner, I have a few brief questions. Could I examine him from this side?

MR. STAMETS: Yes, as long as the reporter can hear you.

CROSS EXAMINATION

BY MR. LAMB:

- Mr. Bear, to clarify the record proper in the application filed on November 12th in this proceeding, Corine Grace was not listed as one of those who had approved or disapproved, was that an oversight?
- A That was strictly an oversight on our part and I believe we corrected that later on.

	Q.	And	đo	you	consider	that	she	was	a	party	to	thi
unit	proce	edure	∍?									

A. Yes, as far as we are concerned she's got her participation percentages just like everybody else did.

MR. LAMB: No further questions.

MR. STAMETS: Are there any other questions of this witness? I've got about one.

CROSS EXAMINATION

BY MR. STAMETS:

- Q. What happens if this unit is not approved and it expires on January 1?
 - A It expires on January 1.
- Q Okay, now, I presume that everybody is not just going to run out there and plug their wells and just wholly forget about secondary recovery. As a practical matter what would happen?
- A. As a practical matter, everybody is not going to run out there and plug their wells. Everybody is going to sit around for a long time and eventually at some point in time, I don't know what would happen. Probably maybe one individual would put some water in the ground and try to flood on a lease basis, I don't know whether -- I don't think the whole field would ever be unitized. I don't think after what we have been through this time, I don't think the whole field

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BY MR. COOTER:

Q. Would you state your name for the record, please, six?

A I'm Ralph O. Cronquist, employed by Amoco Production Company.

DIRECT EXAMINATION

No, sir.

- Q. How long have you been employed by Amoco?
- Thirty-eight years. A.

MR. STAMETS:

MR. STAMETS:

MR. CRONQUIST:

examined and testified as follows:

He may be excused.

Mr. Cooter?

Q. And where are you now stationed with Amoco?

- A I'm located in their Houston Division office as Senior Staff Engineer.
- Q During your employment with Amoco, have you had an opportunity to become acquainted with the creation and operation of various units throughout this part of the country?
- A. Yes, I have worked on unit projects for the last twenty years.
 - Q Has that been your primary responsibility?
 - A. Yes, sir.
- Q. Mr. Cronquist, during that period of time, have you had an opportunity to observe units with a two-phase participation factor such as that that is proposed in this unit?
- A. Quite a large number do have that type of participation in the agreement.
- Q During your experience have you ever had occasion to note that when one of those units became effective that phase-one had expired and the changeover had occurred so that with the effective date of the unit phase-two participation formulas were in effect?
 - A. Yes, in particular I know of one such incident.
 - Q Would you please name that, sir?
- A. That is the Marrs Langley Mattox Unit in Lea

 County, New Mexico which became effective about a year ago.

 Because of the extended period of time that occurred, the

 time of the effective date was based on phase-two participation.

MR. COOTER: That's all, thank you.

MR. STAMETS: Any questions of the witness? He may be excused.

(THEREUPON, the witness was excused.)

MR. COOTER: That concludes our case, Mr. Examiner.

MR. STAMETS: Mr. Hunker, would you like to be

next?

MR. HUNKER: Yes, I would.

Before proceeding with our case in chief, if it please the Commissioner, I would like to ask whether or not the Examiner has been delegated the authority from the full Commission to hear this matter, in view of the fact that the law pertaining to hearings conducted by the examiners is enacted many, many years, or for a number of years prior to the 1975 Act, and I think that the record ought to show that you were delegated the authority from the full Commission to hold this particular hearing in connection with this particular matter.

MR. RAMEY: I think the record should show that the Commission met a week ago yesterday and designated Mr. Stamets as the Examiner for this hearing.

MR. HUNKER: Very well. Then I would like to also ask if a ruling was made on my request for a continuance? I wrote and asked for a continuance of this particular matter.

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That will have to be a matter for MR. RAMEY: Mr. Stamets to decide, Mr. Hunker, and the Commission has not met since receiving your letter requesting a continuance.

MR. HUNKER: We have appeared and we are proceeding with this matter and probably to our prejudice, but I would just like to have the record show that we did ask for a continuance on the basis that we had little opportunity to prepare, that this is a matter of first impression before the Conservation Commission, and we felt that the Examiner and the Commission itself deserved better treatment than this and had we had longer to prepare we would have our witnesses all rehearsed and the questions all prepared and we would have done a better job on the exhibits.

With that, if it please the Examiner, we will continue with this. We have nine exhibits.

JOE JOHNSON

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

DIRECT EXAMINATION

BY MR. HUNKER:

- Mr. Witness, will you please identify yourself by 0. giving the Examiner your name, occupation and address?
- My name is Joe Johnson, I live at 2409 Brentwood, Wichita Falls, Texas.

Q	Are	you	a	salaried	employee	of	the	McClellan	Oil
Corporati	on?								

- A. No. He thinks so at times. I am a consultant petroleum engineer and a partner in a firm called Stevens Engineering in Wichita Falls. We handle waterfloods throughout the United States.
- Q If you were appearing as a consultant today on behalf of Burk Royalty Company, would your testimony be the same as it is going to be?
 - A Yes, sir, I've got to stay in business.
 - Q. What's your professional background, Mr. Johnson?
- A. I graduated from Texas A & M University, I have a Bachelor of Science degree in petroleum engineering and I have a Bachelor of Science degree in mechanical engineering, and I graduated in 1952.
- Q. Have you been working in connection with secondary recovery programs since 1952?
 - A With the exception of two years in Korea, yes, sir.
- Q Have you had any experience in New Mexico with regard to secondary recovery units?
 - A Yes, I have worked in New Mexico since about 1958.
- Q What unit in particular have you been connected with?
- A. The Russell Pool waterflood located about ten miles northeast of Carlsbad, New Mexico, originally operated

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by Neil H. Wills, presently operated by Barber Oil Company.
Then later I started work for Jack McClellan in the Suliman
Queen field and that flood began in December of '71 and it
is still in existence today and doing very well.

- How far is that pool from the Double L pool? Q.
- It is immediatly adjacent to the Double L, located to the south of the Double L field.
 - Is the producing formation the same formation? Q.
 - A. Identical.
- Do you think that the reservoir characteristics are the same?
- Yes, sir. It was mentioned previously by the A. previous witness.
- Have you testified as an expert before the Commission previously?
 - Yes, sir, I have. A.
- MR. HUNKER: Are his qualifications acceptable? MR. STAMETS: Any questions about the witness's qualifications? He is considered qualified.
- (Mr. Hunker continuing.) Are you familiar with the unit operating agreement and unit agreement dated January 1st, 1975 entitled Double L-Queen Chaves County, New Mexico?
- Yes, sir, the unit agreement and the unit operating agreement, yes.

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2	with this matter and with these agreements?
3	A. As mentioned by the previous witness, I have w
	an Aba Bankia I Siali and Some the many banking but

A. As mentioned by the previous witness, I have worked on the Double L field, not from the very beginning, but shortly after the project appeared to be headed toward secondary recovery and after we began work on the Sulimar. I worked on the engineering subcommittee which was under the direction of Mr. Jon Bear.

Explain to Mr. Stamets how you became familiar

- Q You said you did do all of the engineering work for Mr. McClellan in connection with Sulimar?
 - A Yes, sir.

Q.

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- Q. Did you sit on a technical committee involving the Double L pool for and on behalf of Mr. McClellan?
 - A. Yes, sir, I did.
- Q. Did you attend the meetings that the previous witness testified to that you attended?

A. I think I missed several of the operators' meetings, but it was not really necessary since Mr. McClellan was going on his own behalf for me to be there, but all of the technical subcommittee meetings except possibly one of the very first ones, I believe I made.

Q All right. You have had us identify nine exhibits and I would like for you to explain to Mr. Stamets what these exhibits are.

Referring first to an exhibit that we call Number One,

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I'll ask you to tell the Examiner what that is and what it shows?

This is a copy of the proposed Double L-Queen field A. unit, second edition, Engineering Committee Report, October 1, '73, previously referred to by Mr. Bear and actually this is a culmination of the work that was performed. Various points include the reservoir characteristics of the field, recovery estimates, water requirements and on Page Seven is the economics which identify the operation costs expected, the secondary economic limit and the primary economic limit. Then on page eight we have the price of oil, production tax, anticipated income from the sale of oil and gas to the working interest ownership. If you will note, however, at this point we were still estimating in that we were estimating a royalty only coming off on the upper part of page eight. And there are some overrides, so it is not a full eight seven five lease. It goes into a general discussion concerning the economics, including expense and investment.

There is a flow sheet on the next page and it goes through a discussion concerning geology and the back portion of it are the parameters identifying the cumulative production as of twelve, one, seventy-two. The future primary which was worked out in the committee and the ultimate primary, or the figure of one million, four hundred and seventy thousand, seven hundred and fifty-eight barrels.

It also has some other figures such as usable wells, six-months period of income, projection, which indicated an anticipated starting date of the flood, of the water injection in the flood to be one, one, seventy-four.

Then my report has a map of the location of the field within the State of New Mexico. Then also a map showing the wells selected for water injection and an isopach map.

- Q Is your Exhibit Number One substantially the same as the previous witness's Number Eight?
- A Very similar. There are a few additions, I think, to his report that was presented in the form of curves that I don't have in this report.
- Q Why is it important to determine that economic limits of the pool before you decide upon a formula for participation in the reserves in that pool?
- A Well, as a general rule the phase-one participation factor is the remaining primary available to a particular owner. The phase-two is the estimated secondary available to a particular owner. So in order to establish primary, the work done by this committee in the early part, I believe it was on four, four, seventy-three. At that time we projected to an economic limit as established within this report of three barrels of oil per day. This was believed to be at that time, the true economic limit for a well in this vicinity, with the operation expenses incurred at this particular depth and

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everyone agreed to this.

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considered?

A. Surely. It has to be considered in establishing what

Was there one other factor, namely the price of oil

A. Surely. It has to be considered in establishing what is an economic limit, because an economic limit can briefly be defined as being that point when the income to the working interest is equal to the expense to the working interest, therefore, he has reached an economic stopping point and/or limit, so the price of oil would determine the income he is going to be receiving from this.

I would like to quote for a minute from a text entitled, "Petroleum Production Engineering" by Doctor Lester Charles Urren of the University of California wherein he says that: (Reading.) The estimation of economic life period of an oil producing property is a problem that involves the same physical and economic factors that have already been discussed in connection with well spacing. estimation of economic life is but a different form of the same problem and is subject to the same limitations that were found to apply in connection with the well-spacing The rate of production decline, the cost of production, and the selling price of petroleum are mutually inter-related factors limiting the period of economic operation of oil-producing property. The lower limit of profitable operation is reached when the cost of producing a barrel of

oil is equal to its selling price. (End of reading.)

Is this good authority for the position you have taken, Mr. Johnson, or is it authority for the position that you have taken with regard to this matter?

- A. Yes, it's good authority and it is very practical and very sound.
- Q In other words, economics have to be considered when you decide on a phase-one and a phase-two secondary recovery operation, is that correct?
 - A. Yes, that is correct.
- And the price of oil being received by the operators in the Double L-Queen field, as of October 1st, 1973, was four dollars and five cents, is that correct?
- A. This is four dollars and five cents gross, before tax, tax being twenty-eight cents. You are talking about a three dollar and seventy-seven cents, I believe, price.
- Q. So the committee's conclusion as to the economic limit in determining what the phase-one participation factor should be, was determined in part, at least, by the price of oil, is that correct?
 - A. Yes, sir, that is correct.
- Q Okay, let's go on to your next exhibit. Will you explain to the Commission what Exhibit Two shows?
- A. Exhibit Two -- first let me make one statement concerning it. In the upper part of the exhibit there is a

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block that has one hundred and eighty-one thousand barrels,
future unit primary reserves. This figure should be changed to
one hundred and eighty-one thousand, eight hundred barrels.

I have a drafting error there, I'm sorry.

What this exhibit is indicating is all of the properties within the Double L field thrown together provide the production decline which is shown here which indicates that in the latter part of 1970 and the early part of 1971, the production being obtained from all properties within the Double L field contained within the unit agreement were approximately forty thousand barrels per month. Now as you can see from the decline trend this has continuously slipped on down and I'm showing where the old economic limit was at four dollars and five cents per barrel. You will note that according to this curve, the anticipated point that we were looking at that I'm projecting here, would have been in 1976 that we would have had an economic limit at the old four, oh, Actually what has happened, the reason we have five price. met, as mentioned by the previous witness, the figure of one million, four hundred and seventy thousand barrels, which is the shut-off point for phase-one and the beginning of phase-two earlier, is that the committee actually projected this curve in a straight-line fashion rather than in a curve fashion away back there in 1972, and we have actually exceeded the projection that was made by the committee at that time, so that

we are really running in front of what our projection was then.

Now, if you will also note, if you use an economic limit according to the price of oil being paid today of twelve dollars and fifty-six cents, obviously the economic limit then must drop down. You are getting more for your oil, therefore, instead of three barrels of oil per day as an economic limit, it is going to be in a lower position. I will develop that point later.

Q Will you turn to McClellan's Exhibit Number Three and explain what that exhibit shows?

A Again this is a similar type decline trend and the purpose of this was to determine exactly what was the McClellan leases, all of them in the Double L field position. If you will note again we are seeing a flattening action that occurs on the curve, actually starting just about in about the first part of 1975 and the curve is still walking out. I did put a decline walking out on the horizontal. I did go ahead and place a decline trend on it because I felt like it would more or less follow the same trend as a general field that I presented in the previous exhibit.

Again it shows the old economic limit postion of four, oh, five, and shows that obviously McClellan is making money now even at the four, oh, five position.

And it also shows that if you utilize the economic

limit of twelve dollars and fifty-six cents for a future life of approximately four more years would be indicated.

My projections indicate that as of this date, we are looking at a figure of approximately fifty-four thousand, four hundred and eighty barrels, future primary reserves from the McClellan properties.

Q Turn now, if you will, to Exhibit Number Four and tell the Examiner what that exhibit shows?

A Exhibit Four refers back to Exhibit Number One which we had previously commented on as did Mr. Bear earlier, that the committee had utilized three barrels of oil per day per well, and that we had used a four, oh, five price, so I was attempting in this exhibit to point out to bring, instead of talking about barrels per day, I was trying to get it into a dollar category.

The data here then indicates, number one, the economic limit primary as established in the previous engineering committee was three barrels of oil per day per well.

Item two also is shown in that report, they used the four, oh, five figure, or, we, used the four, oh, five figure with a twenty-eight cent tax. However, there is gas sales coming from this reservoir as well, so in order to get this thing into a real true perspective, and utilizing the data, I believe shown on page nine, which estimates the economics, it identifies that gas thrown into the oil pricing and after tax,

would bring us about three dollars and ninety-five cents per barrel.

Now, I took exception previously and I still do, and it is verified within the unit agreement that the working interest ownership is not really eight, seven, five, there are overrides, et cetera. I didn't weight these, but I'm estimating them, based on what I can see in the unit agreement, at a figure of about zero, six, two, five, and this would be a straight across the board figure, and, therefore, in estimating that the working interest ownership would receive really eighty-one percent of the total gross income.

Calculations, therefore, in order to arrive at a dollar figure show the three barrels of oil per day times thirty point four average number of days in a month, equals ninety-one point two barrels per well per month as an economic limit. Using that figure and carrying it further to see where the working interest — what they would receive, multiplying it times the point eight one, we come to a seventy-three point nine barrels per well per month production to the working interest.

Item five indicates what are we talking about in dollars? We take the seventy-three point nine barrels per well per month, multiply it times the three point nine five dollars per barrel and come up with a figure of two hundred and ninety-one point nine one dollars per well per month.

Therefore, the true economic limit as established by the committee was two hundred and ninety-one dollars and ninety-one cents per well per month.

- Q Now turning to Exhibit Number Five.
- A Exhibit Five carries this one further step. Now a statement was made earlier that the primary economic limit was made back in 1973 and that there have been price changes, and there have, I'll agree to this. However, we did the last four months operation expenses on thirteen of the wells operated by McClellan Oil Company and the operation cost average dollars per well per month over that four-month period, was two hundred and ninety-six dollars, compared to the two ninety-one that the committee originally estimated.

I think we have seen the change in the price of oil definitely, and we have seen the change in the price of drilling wells, but as far as operations I don't think the change has been this drastic.

Again carrying further on that, item number one,
we have the average operation expense per well per month. This
is based on the thirteen wells. I went on and picked up
the two ninety-one figure and carried it forward since the
figures were so close. Now, we have a price of oil, though,
of eleven dollars and seventy-four cents per barrel, instead
of the previous three dollars and ninety-five cents. Now
this takes the twelve dollars and fifty-six cent figure,

reduces it for tax and adds on ten cents for gas, because there is some gas sales coming out there, they are not big, but they are there.

Again we have the working interest ownership of eighty-one percent, and the calculation then takes the two hundred and ninety-one dollars and ninety-one cents per well, divides it by the eighty-one or point eight one ownership in order to arrive at what are we talking about as a hundred percent income from a well in order to pay operational costs. That figure comes up to three hundred and sixty dollars and thirty-eight cents. Divide that then by the present price of oil which is -- oil and gas -- eleven dollars and seventy-four cents per barrel and we arrive at a new up-to-date November 1, 1975 economic limit.

Again back on the engineering data of thirty point seven oh barrels per month per well or one point oh two barrels per day per well as opposed to the previous three barrels per well per day established in 1973.

- Are you saying that the new economic limit is now required for this agreement to be fair, reasonable and equitable?
 - A. Yes, sir, it has to be.
 - Q. Turning now to Exhibit Number Six.
- A. Exhibit Six has previously been testified to by Mr. Bear and, I believe, pretty well confirms his figures.

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The purpose of this exhibit is to establish where are we now on this unit agreement, are we in phase-one or phase-two, or what?

Cumulative production as of one, one, seventy-five from the New Mexico data indicates one four oh four oh eight oh barrels produced from the Double L properties included within this project.

Oil production from the first of the year to eleven, one, seventy-five complete. This is all of them. Sixty-three thousand, six hundred and eighty-six or a sub-total of one million, four hundred and sixty-seven thousand, seven hundred and sixty-six. We can only estimate November production because it is not in as of this date and won't be in until the latter part of this month, as I understand, but based on what we have seen in the last several months, it should approximate six thousand barrels, so we concluded from this that the November production did definitely bring it across the phase-one position and into phase-two, and that the sub-total as of the first of December would be one million, four hundred and seventy-three thousand, seven hundred and sixty-six barrels. Carrying it one step further to get to the point of beginning of the unit agreement, should it be approved, we find that with a fifty-five hundred barrel per month figure estimated, we would have an estimated January 1 '76 production of one million, seven hundred, excuse me, four hundred and seventy-nine thousand, two

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hundred and sixty-six, or considerably above that necessary to reach the phase-two position and we haven't put a drop of water in the ground yet.

- Q. Turning to Exhibit Number Seven, I would like for you to explain that.
- Exhibit Number Seven is the future primary reserve allocation summary. This refers back to the previous exhibits. Item one sets out that with the McClellan operation at the present, and this refers back to Exhibit Three, we are looking towards, and this assumes no unit at all, we are looking toward McClellan production to be approximately fifty-four thousand, four hundred and eighty barrels to the true economic limit. Should immediate unitization occur, though, which is requested here, and as of January one as proposed by Burk, the future unit primary reserves as we established in Exhibit Number Two, set out a hundred and eighty-one thousand, eight hundred barrels as future unit primary reserves. But keep in mind we have crossed phase-one, we are now in Okay, so McClellan's reserve allocation on phase-two would then be point, two, two, two, one, oh, five instead of the present roughly thirty-one percent. allocation then would be in the order of forty thousand, three hundred and seventy-nine barrels. The difference is fourteen thousand, one hundred and one barrels. we talking about in the way of costs then to the McClellan

group, again using the eleven seventy-five figure and eighty-one percent ownership, fourteen thousand, one hundred and one barrels. The gross to the McClellan group would be approximately a hundred and thirty-four thousand, two hundred and six dollars.

Who is going to benefit? Somebody has got to benefit if somebody gets hurt. Well, obviously from the unit agreement, Exxon, Dalport and Burk will gain because the phase-one is lower in their case, but the phase two is higher. McClellan's is reversed. Roughly I'm estimating that Exxon would probably gain approximately thirty-three thousand dollars from this. Again referring back to the losses that McClellan would see. Dalport and Burk approximately a hundred and one thousand. What other operators are going to be hurt, again just utilizing the changes that occur in the phase-one and phase-two? Amoco is hurt, Roark and Hooker are hurt, Cleary is hurt. Which operators will be helped much like Exxon, Dalport and Burk, Grace would be helped.

- Q. Have you also made a quick check as to what the effect would be on the United States royalty?
- A. Yes, Federal tracts in phase-one total forty-four point, two four nine oh in phase-one. In phase-two the Federal tracts total four oh point, five eight seven oh.

 Again assuming that one hundred and eighty-one thousand, eight hundred barrels which we feel should be added to get

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to the true phase-one position. The Federal revenue would be reduced by approximately eight hundred and thirty-two barrels, or approximately ten thousand dollars.

Incidentally the State also would be hurt somewhat, but very minor.

- Q And where would the benefit go?
- A To the fee lands.
- Q Turning to Exhibit Number Eight explain to the Examiner what this exhibit shows.
- A. Again we are trying to, I guess, pinpoint why we are objecting strenously to this unit. Without unitization, I'm speaking of the McClellan group, period. Without unitization the present monthly income, according to the curves, et cetera, is approximately, we figure, a thousand, seven hundred and fifty barrels, eighty-one percent ownership, eleven point seven four, we are talking about sixteen thousand six hundred and forty-one dollars gross. Present monthly expense, again utilizing the two ninety-two figure, two ninety-two, two ninety-six, isn't that right? Thirteen wells, three thousand, seven hundred and ninety-six, so the present profit being obtained by the McClellan group is twelve thousand, eight hundred and forty-five dollars. Keep in mind when I'm speaking of the McClellan group, I'm speaking of the group that we previously mentioned which included Black, Toles, Graham, McClellan, Patterson.

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Okay, let's go to what would be the unit, what would be the situation if the unit went into effect as requested now the first of January?

The estimated monthly income, fifty-one hundred barrels, a one percent ownership. McClellan interest point two, two, two, one, oh, five according to the agreement, eleven point seven four. Income, ten thousand, seven, seven, two; estimated monthly expense -- we've got approximately fifty wells according to the report that would be operative, assuming a two ninety-two estimated expense and the expense based on the percentage ownership of two, two, two, one, oh, five, we have an expense then of three, two, four, three; profit seven thousand, five hundred and twenty-nine dollars. What's the difference? It shows that the McClellan group by being forced into a unit would lose five thousand, three hundred and sixteen dollars per month.

Now, if the changes are made in this unit which would allow a true phase-one position to occur and come to a culmination before phase-two begins, income from the unit, again to the McClellan group, we are assuming fifty-one hundred barrels, eighty-one percent ownership, and assuming a phase-one participation as shown here which could change point three, one, one, three, six, five income, a gross income fifteen thousand, one, oh, one, expense four, five, four, six, profit ten thousand, five, five, five, or a difference of

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minus two, two, nine, oh.

So even with the changes that we will recommend finalizing this, we are still going to see a change in the McClellan operation profit.

Q On behalf of Mr. McClellan what recommendations have you made to him with respect to unitization, have you favored it or have you been unfavorable?

A I have been unfavorable and I presented this in a letter dated October of this year where he had asked me in a previous meeting to look into this thing and make a recommendation for the group. I did, and I reviewed it and found that, gosh, we were right up to phase-one completion, if we are not there already, and we are using old back data that we used way back with four-dollar oil, and under those conditions I could not recommend and did not recommend that he sign it, nor that any of his group sign it.

- Q. You are not opposed to unitization as such, though?
- A. Oh, no, it's a cinch flood, it's a very profitable possibility here, but I think it ought to be equitable.
- Q. All right, turning to Exhibit Number Nine, following through on your recommendation that the agreement be equitable, explain that Exhibit and make your recommendations to the Examiner, if you will?
 - A This is a summation of the recommendations in

which I came up after preparing these exhibits and making the recommendation to Mr. McClellan, and that is, one, a request that the Commission deny the unitization, or forced unitization as of January 1, '76 as proposed by Burk Royalty.

Two, I would request that the Commission require an amendment to the unit agreement, page ten, to reflect the true primary reserves in "A", and ultimate primary recovery in "C". These reserves to be determined by an emergency meeting of the technical subcommittee immediately.

Three, that an amendment be ratified by the working interest owners. All it requires here is seventy-five percent, prior to January 1, '76. In so doing, as I read the unit agreement, we have six months to get everybody else in line, but at that point if we can get a true picture on the participation factor where the engineering subcommittee re-projects these to a true and honest economic limit as of today, then at that point we can get seventy-five percent with no difficulty. This offer has been made, and it is obvious that it takes very little -- Dalport and Burk, Humble, Amoco, McClellan. This group would carry it long enough until everybody else could be contacted and ratified.

The statement here is that eighty percent of phaseone and seventy-five percent agreeing to go six more months
is all we need. That can easily be done through an emergency
meeting of the committee and an agreement in the committee.

I am for, I strongly recommend to McClellan that with this agreement that the unit become effective as of January 1 and we take off because it is a good project. It really is. We have proved the project in Sulimar, the same sand, it is a money-making dude.

- Q But it would be a losing deal for McClellan if it was approved by the Commission in its present form, is that correct?
 - A. Yes, it would.
- Q. In your opinion, Mr. Johnson, would the working interest owners that comprise the ownership of this unit area be treated absolutely fairly if it were approved in its present form?
 - A. No, sir, they would not.
- Q Do you think that the unit agreement would be workable if it were approved in its present form?
- A. It would be workable? No, sir, I'm afraid it would not.
- MR. HUNKER: I have no further questions on direct, Mr. Stamets.
- MR. STAMETS: Are there any questions of this witness?
 - MR. COOTER: Yes, sir.
 - MR. STAMETS: Mr. Cooter.

CROSS EXAMINATION

BY MR. COOTER:

Mr. Johnson, just as a practical matter, if after five years there is no unanimous agreement, do you really believe that between this evening and the end of the month, with the Christmas, that something is going to happen and there will be, you really do?

- A. I sure do. With an ernest effort I see no reason why not.
- Q Well, I assume that everyone has expended earnest efforts for the past five years?
 - A. I agree.
 - Q. I don't accuse anyone of bad faith.
- A. No, I don't either. I'm saying, though, Christmas vacation and all this good stuff, yes, I think with an earnest effort we can do it.
- Q. All right. Were you present at the meeting on January 8, 1974 when the change was agreed to in the operating agreement to change the change-over date from phase-one to phase-two to be one, point, four, seven, oh, seven, five, eight million barrels?
 - A I'm not sure, sir, I'm really not.
- Q Well, to refresh your recollection, I'll ask you if that meeting was held in the offices of Dalport Oil Corporation, 3471 First National Bank Building, Dallas,

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Texas, commencing at ten A.M. on that date?

- A. Could you tell me who was there?
- Mr. Shepherd and Mr. Emery with Exxon, Mr. Cronquist with Amoco, Mr. Bear with Burk Royalty, Mr. Todd with Dalport Oil who called the meeting to order and the minutes reflect your presence.
 - A I think that was the day it was snowing.
 - Q You recall that now that you were present?
 - A. Yes.
- Q. And that was the date that that figure was changed to what it is currently as set forth in the agreement as offered here, one million, four hundred and seventy thousand, seven hundred and fifty-eight barrels?
 - A. Uh-huh.
 - Q. And you agreed to that?
 - A. Yes, sir.
 - Q Now what was the price of oil at that time?
- A. I'm not sure, sir, but I think it was still in the four to five dollar range, but I'm not positive, it has changed so much.
- And it might yet change, depending on what the
 President does with the bill that is now pending in Congress,
 or what Congress does, depending upon what the President does?
- A. I think that the biggest factor here is the Arabs more than us.

Q. But that twelve-dollar figure may certainly come down, that there exists from what you have read in the newspapers and publications that that certainly is a good possibility?

A. It is a possibility. It could come down and then go back up, as I understand it, but if you are asking me at this point to predict what Congress is going to do, and what the President is going to do, because this all affects the price of oil, and what the Arabs are going to do, and I couldn't even start with the first one.

- Q All I'm asking you is that the price is subject to some signs on the horizon that indicate to you, as to everyone else that there might well be some rather drastic changes made in the price of oil?
 - A This is possible.
- Q And so the figures that you have used in your exhibits might not be correct?
 - A. It is very possible.
 - Q. Come Christmastime this year?
 - A. That's possible.
- Q All right now, you were also present, were you not, at the meeting held on September 12, 1973 when the participation formula of fifty-five percent ultimate primary and forty-five acre-feet was established for the phase-two formula?

A.	I be	lieve :	you are co	rrect.	That w	as three	year
ago and	I made	a few	meetings,	and I'm	n sure	your min	utes
reflect	it.						

- Q If the minutes reflect that you were there along with Mr. McClellan you wouldn't have any reason to doubt those?
 - A I was there.
- Q Do you recall that it was Mr. McClellan who made the motion that that formula be accepted as the phase-two formula?
 - A. If the minutes reflect this, yes.
- All right. Now then, if that phase-two formula had been established at fifty percent ultimate primary and fifty percent acre-feet, are you following me, rather than the fifty-five forty-five, let's say it was split fifty-fifty?
 - A. Yes, sir.
- Q Do you have an opinion as to whether or not Mr. McClellan's interest under phase-two would have been less than what it was established to be?
 - A. You are losing me now.
- Q What I'm saying is, if that formula hadn't been fifty-five forty-five, but it had been fifty-fifty, there is no doubt in your mind but that Mr. McClellan and his group's interest under phase-two would have been less than what it was established using the fifty-five forty-five forumla

that he proposed?

A. I'm sure his proposal was in his favor, if that is what you are getting at.

No, what I'm getting at, and if you don't know, tell me and I'll bring out a witness, but what I'm getting at is I think rather an elementary proposition, that the fifty-five forty-five formula agreed to by everyone for phase-two participation results in a larger interest to Mr. McClellan than a fifty-fifty formula would have been if that had been accepted?

A. I'm reasonably sure that this is correct, but without checking it I really don't know, but I will accept your statement.

Q This is a matter of negotiation that was negotiated between all of the working interest owners when they accepted that fifty-five forty-five they also in like term accepted the change-over time from one point three something million gallons to one point four, seven, oh, plus?

A Well, now, I don't know whether the reason that change was made was because of an economic limit.

Q Right, no, I'm not asking you the reason. This was a matter of negotiation and agreement between all of the working interest owners?

A. I wonder if possibly a lease was attached to a unit that hadn't planned to be in there before, I don't know.

- Q But everyone agreed to it, this was a matter of negotiation?
 - A. Okay.

- And they agreed to set this date when phase-one went out and phase-two came in, they agreed with that in mind of establishing, going along with what Mr. McClellan proposed of a fifty-five forty-five phase-two formula?
 - A. Okay.
- Now, what I understand you want to do is just to
 change one element of that, you want to change the date that
 we switch from phase-one to phase-two, don't you?
 - A. No.
 - Q You don't want to change that?
 - A. Well, it will change it automatically.
- Q. What you propose is that that one million, four hundred and seventy thousand be changed to an amount of one million, five hundred and some odd thousand?
- A No, no way. What I am proposing at this point is that the engineering subcommittee meet and agree on this. Here are people that would all go along together and they would say, "All right, this is what it is going to come down to."
- Q That is your proposal set forth in your October letter?
 - A. Right, but I thought later on that that it was not

fair to you, or to your group, because now I'm dictating,

I don't want to dictate, I want to work in a manner so that

it is equitable to all people.

- Q All right. And what you are proposing then is that we just go back to the technical subcommittee and open it all up again?
 - A. It wouldn't take as long.
 - Q We've been at it five years now, Mr. Johnson.
- A We've got the curves prepared, all we would have to do is bring up the curves, extend the projection, determine the primary, determine the ultimate primary, recalculate the factors, and if everybody is happy we can go, that's it. We did this before and it took two different days. If you remember that was mentioned, I think, on the fourth and the eighteenth, that we were doing different things.
- Q That was where the parameters for the acre-feet was resolved?
- A. Right. This was done in a real very quick fashion. We've got the base work done, we are ready.
- Q Well, I won't argue with you. Now, let me ask you, is it customary to change unit participation with the change in oil prices? Do you know of any other unit where this is occurring?
- A. I've never had an oil price change like they've changed lately.

- Q Right, and it is pretty hard to tell what is going to come?
 - A. Yes, sir.

- Q All right, your estimate of total recovery, with secondary operations as I understand, remains the same, one point eight plus million of secondary recovery?
- A. I don't agree with that figure. That was the figure that Jon put out, I didn't put that figure out.
 - Q What would be your --
- A. I think this particular unit is going to recover in the order of about three point two million on secondary. Now, why do I think this?
 - Q I didn't ask you that, Mr. Johnson.
- A Well, I think I should explain it, though, because now we have opened up a different territory here.
- Q Bear with me and my questions for a minute and then if Mr. Hunker wants to ask you to go into further detail, I'm sure he will come back with you on it, but bear with me on my questions to you, please. I don't mean to cut you short, I just want you to go along with me and answer my questions, please.

You believe that the total recovery, through seondary operations, far exceeds that which the technical subcommittee indicated was their opinion of the secondary recovery?

A. Yes, sir.

Q Prior to today, have you expressed your opinion to the operators to that effect?

- A. I don't recall.
- Q Do you recall if you ever did?
- A I probably did, I talk a lot.
- Q Okay. If you believe there is a larger amount of secondary recovery, what you are saying is that there is a greater portion of that that is primary production and less would be, because of the increased price in oil, we'll just postpone putting into secondary recovery, more of that can be obtained through primary production prior to the commencement of any secondary recovery project?
- A. The figure I gave you a minute ago was secondary reserves, period.
 - Q Of three million plus?
 - A. Yes, sir.
- Q What I'm getting at is that from that three million plus that is going to be recovered whether waterflood be instituted next month or five years from today, what you are saying is that the primary production will produce this much more, so there will be less under secondary recovery? The same amount of oil is down there, you don't change the amount of oil that is there now, do you?
 - A. No.

Q So if you recover more under the primary recovery, then there is going to be less under secondary recovery?

A. No, sir.

- Q You are going to recover more?
- A. This is why we are receiving more primary. We are able to take a well down further now with the price of oil than we were before, so, therefore, what used to be called primary previously at three barrels of oil per day per well is still primary at one barrel of oil per day per well.
 - Q I understand you thoroughly.
- A. And then if we use the same criteria as the engineering subcommittee used, which was one point four times primary, equals secondary, then the larger amount of primary therefore equals a larger amount of secondary.
- Q. You are going to get more secondary recovery if you just postpone the operation for several years?
- A. No, that wasn't what I said. Sure it's -- I'm not advocating postponing, what I'm advocating is equity and I'm advocating that we start it right away, but some of this oil is primary. We had the same thing occur in Sulimar, we were coming down on primary and we had a phase-one and a phase-two and I think it went about six to eight months before we entered into phase-two, but I have never been in a unit where I walked into phase-two first.

Q Did you hear Mr. Cromquist testify as to this unit?

- A. Yes, sir.
- Q Are you acquainted with that unit?
- A. No, sir, I'm not.

MR. COOTER: That's all, thank you.

REDIRECT EXAMINATION

BY MR. HUNKER:

After the long lapse of time, Mr. Johnson, from

January of 1974 until the earlier part of this year, what

provoked Burk to go ahead with unitization at this late date?

A I think that Burk was active somewhat, they were active all the way through in all probability with the unitization, but other things became more important, in all probability, except there was a ruling that came down which states, quote, once a stripper, always a stripper. Therefore, the thing that had Burk and us very worried was that if we walked in under the two-tier system into a flood, and we jumped that thing like we did in Sulimar, we moved from twelve dollars to five dollars on it, which didn't make anybody any sense. You are going to pour thousands of dollars in this thing to make money and, wham, you lose your price of oil, so this delayed it for a period. We weren't inactive, or Burk wasn't, I don't think, but we

weren't real active either, maybe. But comes July one,
we get a new ruling, once a stripper, always a stripper, now
we don't have to worry about the fact that we are moving from
twelve to five, we are twelve to twelve.

- Q In the twenty-three years that you have been in the oil business, have you ever known such an inordinate increase in price to occur?
- A. No, I testified to this effect about two or three years ago in Oklahoma and the jury all laughed, and I was estimating that we were going to go to five dollars. I would never have dreamed that we would go to twelve, but we did.
- Q Do you think the price of oil can increase as well as decrease?
- A. That depends on the Arabs, I think, more than anything else. They can control it and they are going to.
- Q. I would like for you to explain to Mr. Stamets, you tried to make an earlier explanation, why you think the recoverable secondary reserves in this Double L unit will be considerably higher than were originally estimated?
- A Again here I think the price has a bearing because what the engineering subcommittee was doing was taking a general average of the Queen floods that had gone on in the past and they were saying, "Okay, they had so much primary, and this much secondary, so one point four is a good figure," and that is what it came out.

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I had estimated previously on the Sulimar project south of here for McClellan, that we were looking somewhere in the order of one, five as I recall. Later I had to up-date that to one, seven and recently I have up-dated it to two point Now, why? Because the projects are doing much better; one. we've got better control of our water; we have less scaling action than occurred in the old Queen projects; we've got more recovery that's coming in; we've got a better price for our product, so it is going to last longer. You can use this for a guideline. For example, right now I'm runnning at a one point three one of primary and I've only been flooding in Sulimar for a little over three-and-a-half years. The committee in the report here estimate one point four in ten years, so with proper control there is no reason in the world why we shouldn't reach this. Projections are very easily made now in Sulimar where they weren't available when we made the engineering committee report. We were going up on Sulimar at that time. We have now leveled and we are coming on a projected down, very, very well projected and we are moving it out a little but it is still projectible. We are looking at a two to a two point one recovery, and that's where I Actually the Double L has better primary think this is. per well than Sulimar.

In your opinion, Mr. Johnson, if the Commission accepts your recommendation, will it be protective of

correlative rights and be in the interest of the prevention of waste?

A. Yes, sir, it will. There is one other point too that ought to come out of here too. The way this formula is set up it not only affects phase-one, it also affects phase-two.

Q In what respect?

A Phase-two is made up, as previously mentioned, in fifty-five percent of C and C is the ratio of the volume of oil determined to be ultimately producible from each tract to the summation of the volume for all tracts. So we again have got primary in our phase-two position, so it is going to change it. The best I can tell that the figures that are presented before, both for McClellan as well as the royalty owners, and the losses and the pluses that would occur. It will just about double the figures that I put out, so where I had advised McClellan previously not to sign, I would have to advise him doubly not to, unless there is a change that is made.

MR. HUNKER: Mr. Examiner, I have nothing further.

I would like to move, however, to have admitted into evidence the Exhibits One through Nine.

MR. STAMETS: Any objections to these exhibits? They will be admitted.

(THEREUPON, Exhibits One through Nine

were admitted into evidence.)

BY MR. STAMETS:

Mr. Johnson, I asked the previous witness in his
 opinion what would happen if the January date rolls by and
 this unit expires and did you hear his response?

CROSS EXAMINATION

- A Yes, I believe I did.
- Q In your opinion, now what would happen in this area if this unit expires?
- A. Well, item one, the wells would not be plugged.

 That is very obvious. Nobody is going to walk out there and plug a potential oil recovery that is proven virtually by the offset project.

Item two, I have a suspicion that there would be a period of bitterness that probably would occur among the operators and finally we would all get to the table and do our work and put the project in just like we should do.

- Q. How long do you think it would take to get back to the --
 - A. Can I ask you a question?
 - O. No.
- A. Hopefully right away, if we can do it. I don't know in this case, it is very, very difficult to predict.

 We might be talking about one or two years, or three years.

I really don't know, again a gauge of personalities, if necessary.

Q Your maximum figure estimated for three years?

A. Yeah, I think so because everybody is running into an economic limit, a new economic limit. McClellan obviously can run another four years before he starts paying more to keep a property alive than the income he is going to be receiving, unless the price of oil changes. That is when it is going to occur that somebody is going to have to give, or hopefully before then, because when it starts costing you ten dollars to get eight dollars you are going to scream, and everybody is going to scream and they are going to sit down and really negotiate the way we ought to.

Q Is it important to ultimate recovery, maximized ultimate recovery that this flood should be put into operation now, and I'm speaking of a reasonable period after January 1, rather than three or four years down the line?

A. I think it would be a good idea for it to go in as soon as it could, but really probably the theoretical optimum time for this thing to have been put in was probably shortly after it started drilling, but we just don't do it that way.

I saw a paper once on a Russian project and they don't have the problems we do in this respect, they all agree, and they had a very, very optimum successful project,

perfect. Actually the ideal time, as you will note, for a secondary project, is before everything is gone, gas, oil, et cetera, but the closest we can get to that it seems like is down the road sometime.

- Q. I believe you said that you thought if the committee got back together they could work out a new primary figure?
 - A. I think we can.
 - Q Within a couple of days?
- A. I think so, I do. It is going to take a definite effort.
- Q I presume that would require that the working interests all agree again to the agreement?
- A. Really the representatives that are present here are making the direct recommendation to the owners, so I would say that if the committee agreed, the owners in all probability would go right along with them and we only need --
 - Q. The answer to my question is, "yes?"
 - A. Okay, yes.
- Q Thank you. Now you said that the unit agreement is not workable in this form. Specifically, what did you mean?
- A. In this form it specifies that we are working in a phase-one phase-two position and that phase-one fades out at one million, four hundred and seventy thousand, et cetera, and in that form the unit agreement is not acceptable, I

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cannot recommend it and I would say it is not workable.

Now, today, at this Hearing, do you have a formula Q. which you will propose for the allocation of the oil and gas from the unit to the separate tracts?

I think that the formula as presented in the report is correct, in its formula, but the figures need to be up-dated from an early 1973 date to a present date, and, therefore, in all probability, that one million, four, seven, oh, would change into a one million, five, eight something. That's just my figure, and again I want to emphasize that I'm not trying to say, this is the way it has got to be done. I'm stating that we need to get together and decide what is the true primary reserves with today's price.

Suppose we were using 1920 prices, that's twentyfive cents, that economic limit sure would be a lot different.

- Q. From your testimony now, as I understand it, you do not have a figure?
 - No.
 - Which you propose as that cross-over point?
- No, sir, I do not. I have an estimate of what -well, I have a figure that is presented on Exhibit Two. That, I think, will be the outcome of this meeting, but that is That figure would add roughly a million -just my figure. excuse me, one hundred and eighteen thousand, eight hundred barrels to the one million, four hundred and seventy-nine

thousand that is predicted to be produced by the first. That is an approximation, and I don't think I should put it down, I think we ought to work it out.

MR. STAMETS: Are there other questions of this witness? Mr. Ramey.

CROSS EXAMINATION

BY MR. RAMEY:

- Mr. Johnson, say this committee went into meeting in three days, Congress in three days passed their bill which reduced the price of oil to seven, sixty-six, at the best, say that stripper oil became old oil and the price went to five, twenty-five, what would be the effect on this?
- A. We would have to adjust to that, whatever the price is, but the thing about it is, I don't think -- we've got to use what we've got that day. If that day is five dollars or that day is eleven dollars or it is twelve dollars, or if it is eight dollars, let's use it, but why use four.

MR. RAMEY: That's all.

MR. STAMETS: Any other questions of this witness?
He may be excused.

(THEREUPON, the witness was excused.)

MR. STAMETS: Do you have anything further,

Mr. Hunker?

MR. HUNKER: Nothing further.

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MR. STAMETS: Does anybody else wish to put on testimony?

> Could I just make a statement? MR. TODD:

MR. STAMETS: Let's see first if there is additional testimony.

Mr. Examiner, on behalf of the Grace's MR. LAMB: we do not wish to call a witness.

MR. STAMETS: We will take statements in this Case at this time.

I'm W. L. Todd, Junior, Dalport Oil MR. TODD: Corporation. I was chairman of the operator's committee from the first meeting in June of 1970 until the January '74 meeting when Burk Royalty was selected as the operator and as you can understand from the conversation today, we had an awful lot of disagreements, and we had a lot of compromises, and we went through some long sessions trying to get everybody shuffled around and pleased with this thing, and we have just about worn out everybody that is connected with it, so I urge the Commission and hope that the Commission will certainly issue an order that will keep this thing from going under on January the first, because I truly believe that if it goes under, it is going to be an awful long time before we can work back to where we are today. And I assure you that I don't want the honor of being chairman of the committee the next time around.

MR. STAMETS: Any other statements?

MR. McCLELLAN: I would like to make a statement.

I'm Jack McClellan of McClellan Oil Corporation. I feel

the same way as W. L. does, we have all put a lot of time

into this thing and it has been to our benefit actually because
the price of oil has continued to go up, but we are here to

try to get this thing settled and Joe Johnson, the engineer,
informs me that it can be done very rapidly.

My question would be, and this is not the time for questioning any longer, is: there has never been any mention whatsoever on the part of Burk or W. L. as to their willingness to attempt such a change in this phase-one formula to up-date it 'till today, and if there is no interest on your part to at least attempt this, we may all be wasting our time again, but if there is, I can guarantee you that we would make every effort at any time, anywhere to try to get this thing. We feel too that we don't feel we want to see it go down the drain, we have all spent too much time and money on it.

MR. STAMETS: Mr. Hunker, do you have a statement?
Mr. Reavis has one, let Humble go first.

MR. REAVIS: I think everybody has heard all they want to today, but I have heard nobody say that this is not going to be a successful unitization and a waterflood if it is waterflooded. Of course, I have my doubts if it ever

falls apart that we could ever get to a point where we could put the whole thing together, get the whole ball of wax again in the same shape we have got it now. And, therefore, I want to make this statement for Exxon. We urge the Commission to grant an order unitizing the lands and interests in the Double Queen pool that is provided for by the statutory unitization act.

MR. STAMETS: Mr. Hunker.

MR. HUNKER: Mr. Examiner, I would like to call your attention to Chapter two, ninety-three of the laws of 1975 and point out to the Commission that there are some problems. First of all, the problem with regard to who initially pays seventy-five percent of the cost of unit operations? I think the testimony of the Burk witnesses is rather indefinite on this score. There is a variance between the provision of the law and the unit agreement. The unit agreement apparently requires eighty percent.

I would also like to call your attention to the fact that you might see fit to suggest a formula under the law for these operators. I think it would be a precedent-setting thing for you to do this, but I call your attention to the provisions of 65-14-4, being Section Four of the same Act, wherein relative value is defined as meaning the value of each separately-owned tract for oil and gas purposes and its contributing value to the unit in relation to like

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values of other tracts in the unit, taking into account, acreage, the quantity of oil and gas recoverable therefrom, the location on the structure, its probable productivity of oil and gas in the absence of unit operations, the burden of operations to which the tract will or is likely to be subjected or to many of such factors, or such other pertinent engineering, geological, operating, or pricing factors as may be reasonably suceptible of determination, and I suggest to you that it might not be out of line for the Commission, in light of Mr. Johnson's testimony, to take it upon itself to make a determination as to what the factor I don't know whether this would have to be should be. approved by the working interest owners or not, it's problematical, but probably you would want to get some ratification from those working interest owners.

and I would like to say this, that Mr. McClellan and the group that he represents are not opposed to unitization. He has very successfully operated the Sulimar project and it has been most successful. He feels that the present program will be successful, but as the operator of the properties in which he has a number of partners, he cannot see or stand idly by and see that they are penalized to the extent of a hundred and thirty-six thousand dollars, which according to Mr. Johnson's testimony which would be accomplished if the unit agreement is approved in its present form.

I want to thank you very much for the attention that you have given to Mr. Johnson. I wish that I had had more time to review the transcripts of the Commission with the earlier cases that you heard so that I could have avoided some delay, but that's just the way it was. I wanted to be sure that I saw the exhibits that were previously testified to so that we had an opportunity to at least look at them and cross examine if we wished to. With that in mind, I want to thank you again for your kind attention and we do hope you will see fit to protect the correlative rights of the McClellan group and that you will go so far as to see to it that the agreement that is ultimately approved is fair, reasonable and equitable as required by law. Thank you very much.

MR. COOTER: A very short closing statement, Mr. Examiner. First with regard to the statutory requirement of seventy-five percent. We believe that the requirement is that, regardless of whether or not the Commission should grant unitization, it must be ratified by the owners of seventy-five percent of the interest of the ones then charged, not only with the operating expenses, but the capital investment as well.

As this agreement has worked out, and as it has come down to the eleventh hour, that is done following an accepted full formula that was proposed by Mr. McClellan and

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agreed to by many of his group by letter ballot and then carried on. It has now been formally ratified by those in excess of seventy-five percent. We believe that the statute is complied with.

Now then the question is, should we change the date of phase-one to phase-two? Well, this was set out by Mr. McClellan, this proposal, after we filed this application for statutory unitization. Up until that was filed, all we It was not acceptable despite the five years knew was, no. of negotiations that have been going on. Then at eleventhirty, which is where we are today, on December 3, is the proposal being made that let's extend this date because now it is economically feasible to continue with primary production until these wells have reached a lower point of production? That is the same throughout the field. We don't believe that the correlative rights of Mr. McClellan are adversely affected by that any more than anyone else. If it is economically feasible for Mr. McClellan to produce, it is the same way, it is economically feasible for Burk Royalty to produce because they are getting the same price for their oil, but that isn't really the important part. What is the important part is that absent approval by the Commission when over seventy-five percent of the people say, "Let's go, let's make it a unit; we now have the statute, let's make the whole thing a unit," we no longer have to be on a voluntary basis

as the agreements were originally planned. Now Mr. Johnson says, well, in the few days remaining in December we are in effect going to re-negotiate all of those participation formulas on a figure that will be agreeable to Mr. McClellan. That might be the decision of the Commission, but in effect from what Dalport has said and what Burk Royalty has said and what Exxon has said, in effect, that is the death blow to the unit.

Now whether or not it is revitalized in two or three years later on down the line when Mr. McClellan's interests become a little more pinching, I don't know. He might be able to reinstate it or reinstate it in part or get something going, we don't want to anticipate that.

What we are saying is now, is following Mr.

McClellan's formula, which everyone else agreed to, which

affects every operator in exactly the same manner, this is

the unit agreement as we are presenting it to you. Over

seventy-five percent of those who will pay not only the

capital investment costs, but the operating costs, as of

today, or whenever the order is entered, have agreed to it,

and that is just what the statute requires. It is now

presented as whether or not even with this seventy-five

percent that should be acceptable to the Commission and the

Commission act on it.

This fifty-five forty-five formula is a matter of

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of give and take, it is a matter of negotiation. If it had been sixty-forty, Mr. McClellan's interests would have benefited more than the fifty-five forty-five. Likewise, if it had been fifty-fifty his interest would not have been as great, they would have been adversely affected, but this was negotiation, give and take, that has all gone on over a period of five years, here we are down to the eleventh hour, the clock is almost beginning to strike. If we have the unit, if the statute provides that with this amount of approval this can be done, we submit that it treats everyone throughout the unit just exactly in the same manner and for that reason we ask that the Commission grant the application and that it be done promptly so that we can go back and get final approval from the USGS and from the Commissioner of Public Lands if it is granted, otherwise the matter expires.

MR. STAMETS: Any other statements in this Case?

MR. CARR: Mr. Examiner, we have received a letter

from E. E. Morris, Division Engineering Manager with Amoco
supporting the application for a flood.

MR. STAMETS: I would ask at least Mr. Cooter and Mr. Hunker submit a proposed set of findings and form of order for my consideration in this matter. I would like both of the attorneys to look especially at Section 65-14-6, (b) and (c) of the statutes.

Since time is critical on this matter, I would

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like to have these proposed orders by next Wednesday, if at all possible.

Is there anything further in this Case?

We will take the Case under advisement and the Hearing is adjourned.

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REPORTER'S CERTIFICATE

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I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5596

New Mexico Oil Conservation Commission