I N D E X

March 27th, 2003
Examiner Hearing
CASE NOS. 13,041 and 13,042 (Consolidated)

* * *

E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	11	17
Exhibit 2	11	17
Exhibit 3	13	17
Exhibit 4	13	17
Exhibit 5	(does not exist)	
Exhibit 6	15	17
Exhibit 7	16	17
Exhibit 8	16	17
Exhibit 9	27	54
Exhibit 10	29	54
Exhibit 11	30	54
Exhibit 12	30	54
Exhibit 13	36	54
Exhibit 14	37	54
Exhibit 15	41	54
Exhibit 16	42	54
Exhibit 17	43	54
Exhibit 18	45	54
Exhibit 19	52	54

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Lowe	Identified	Admitted
Exhibit 1	76	83
Exhibit 2	78	83
Exhibit 3	79	83
Exhibit 4	81	83
Exhibit 5	19	-

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(Continued...)

E X H I B I T S (Continued)

Additional submissions, not offered or admitted:

	Identified
Letter from Joyce Sullivan	6
Letter on behalf of the Key family group (from Thomas Kellahin)	7

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A P P E A R A N C E S

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* * *

WHEREUPON, the following proceedings were had at 1:05 p.m.:

EXAMINER JONES: Okay, let's go back on the record and call Cases 13,041 and Cases 13,042, Application of EnerQuest Resources, LLC, for approval of a waterflood project and qualification of the project area for the recovered oil tax rate pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico,

and Application of EnerQuest Resources, LLC, for statutory unitization, Lea County, New Mexico.

Call for appearances.

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe office of Holland and Hart, L.L.P. We represent EnerQuest Resources, LLC, in each of these cases, and I have two witnesses.

I would request that they be consolidated for the purpose of hearing.

EXAMINER JONES: Okay, other appearances?

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe. I'm appearing today on behalf of Lowe Partners, LP, and also on behalf of Rocket Oil and Gas Company, LP. I have one witness.

EXAMINER JONES: Any other appearances?

Okay, for the record we have a letter from a Joyce Sullivan. We need to at least make her letter part

of the record here. She's representing some royalty interest owners.

And also we have a letter on behalf of the Key family group, from Thomas Kellahin, Kellahin and Kellahin, made entry of appearance for the purpose of preserving the family's right to a *de novo* hearing. But they will not be present today, and they will not call witnesses.

Will the witnesses please stand to be sworn?

(Thereupon, the witnesses were sworn.)

M. CRAIG CLARK,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARR:

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

A. Craig Clark.

Q. Mr. Clark, by whom are you employed?

A. I'm an independent landman.

Q. And where do you reside?

A. Midland, Texas.

Q. What is your relationship with EnerQuest Resources, LLC?

A. I'm hired to do their land work.

Q. And are you working as a consultant on this particular project?

A. I am.

Q. Have you previously testified before the New Mexico Oil Conservation Division?

A. Yes, I have.

Q. At the time of that testimony, were your credentials as an expert in petroleum land matters accepted and made a matter of record?

A. Yes, they were.

Q. Are you familiar with the Applications filed in each of these consolidated cases?

A. Yes.

Q. Are you familiar with the status of the lands involved in the proposed East Hobbs-San Andres Unit area?

A. Yes.

Q. Are you familiar with the efforts made to put this unit together over the last several years?

A. Yes, I am.

MR. CARR: Are the witness's qualifications acceptable?

MR. BRUCE: I have no objection.

EXAMINER JONES: His qualifications are accepted.

Q. (By Mr. Carr) Mr. Clark, could you briefly state what EnerQuest seeks with these Applications?

A. In Case 13,042 we're interested in the statutory unitization of our proposed East Hobbs-San Andres Unit.

It's a 920-acre unit with state and fee lands.

Q. And in Case 13,041 what are we seeking?

A. Approval of a waterflood project in the East Hobbs-San Andres Unit and qualification of the unit for the recovered oil tax rate pursuant to the New Mexico Enhanced Oil Recovery Act.

Q. Could you review for the Examiner EnerQuest's efforts to unitize and implement a waterflood in the proposed unit area?

A. In the fall of 2000 EnerQuest prepared a waterflood feasibility study. We did evaluations of that in early 2002. Due to the advanced state of depletion of it, we decided to proceed with this unit in the waterflood project. And January of a year ago we sent unit agreements, unit operating agreements, to all the working interest owners.

That was followed up with -- We filed Applications in February, 2002, and at that time we had opposition from two main groups in the working interest owners, the Key family and Lynx Operating Company.

February through April of 2002, we exchanged data with these groups, met with their experts to refuse -- to review the unit and the waterflood unit.

We continued our hearing several times, and on May 16th of 2002 we had a hearing to -- well, actually at

that time it was arguments on if we'd given enough notice for the working interest owners to have time to evaluate the proceeding.

June, 2002, our Application was dismissed and we were told to go back and have some working interest owners' meetings.

We then, in June -- We had three working interest owners' meetings, seven technical committee meetings, and that brought us up through December of 2002, at which time we came out with the technical committee's -- their recommendations. We worked with the other working interest owners and came up with this new plan at that time, and since that point we've re-filed our Application again.

Q. Have you resolved the issues with the Lynx and Key family group?

A. We have.

Q. You have some members of the Key family that did not settle with EnerQuest; is that correct?

A. They have -- You know, we had offered to purchase their interest. They chose -- They said they were going to sell that at an auction, and that's the last we've heard from it. But the other member of the Key family group, we have received ratifications from them for their interest.

Q. And you have acquired Lynx's interest?

A. And we bought out the interest of Lynx.

Q. Let's go to what has been marked for identification as EnerQuest Exhibit Number 1, and I'd ask you to identify this and review it for the Examiner.

A. This is a map of the area of where our proposed East Hobbs-San Andres Unit is. It's a 920-acre unit, covers four sections. It's outlined in green on the exhibit.

To the west we've outlined the North Hobbs and South Hobbs Units that are also San Andres units that have been in place, that OXY operates for...

Q. Are those waterflood projects?

A. Those are.

Q. And could you identify for the Examiners where the New Mexico-Texas state line is located?

A. If you notice on the exhibit, right to the east of where our proposed unit, there's a kind of a bold line running north and south, and that is the state line. We're about a quarter of a mile from the state line.

Q. Let's go to what's been marked as Exhibit Number 2. Would you identify and review that, please?

A. Exhibit Number 2 is the exhibit that we've included in the unit and unit operating agreements that has each tract in the proposed unit, the status, the operator, the well names, and also all the existing wells that are out there. And then in the southeast corner of it, the

tract with the hachmarks is a state tract.

Q. And it is in that tract that the Lowe Partners have their interest; is that correct?

A. That's correct.

Q. Do you know which tract Rocket has an interest in?

A. Rocket is in Tract 11 on the far west side. It's the Rocket-Cain lease.

Q. Other than the tract that's shaded or crosshached, the state tract, the rest of the unit is fee land; is that right?

A. That's correct.

Q. Do you know what percentage interest the Lowe Partners own in the unit area?

A. They own a 4.25-percent override in the Lowe State lease.

Q. And will a subsequent witness review the status of that tract as it relates to that interest and his participation in the unit?

A. Yes, they will.

Q. Do you know what interest Rocket owns?

A. They have a 10-plus-percent royalty in Tract Number 11, Rocket-Cain.

Q. And again, that will be something that can be reviewed by another witness?

A. Right.

Q. Let's go to Exhibit 3. Would you identify that?

A. It's the proposed unit agreement for the East Hobbs Unit. This is a standard form with the State Land Office.

Q. And this identifies the character of the lands?

A. That's correct.

Q. Provides for waterflooding in the unit area?

A. Yes.

Q. Does this agreement also set out the participation for the tract of each of the parties?

A. It does.

Q. Does it provide for the filing of periodic plans of development as unit operations go forward?

A. Yes.

Q. And what is Exhibit Number 4?

A. Exhibit Number 4 is the unit operating agreement.

Q. Generally what does this cover?

A. This covers operations between the working interest owners for conducting -- how we develop that.

Q. Standard provisions?

A. That's correct.

Q. Does it contain the normal accounting procedures and basically define the rights between the parties?

A. Yes, it does.

Q. The State is not a party to this --

A. That's correct.

Q. -- operating agreement, is it?

Have you reviewed the Application for this unit waterflood with the State Land Office?

A. I have.

Q. And what response have you received at this time?

A. We met with them yesterday, went over and at that time they indicated that they would process it through their department up there, but -- and send us an approval letter or preapproval letter after that.

Q. Did you review the participation formula?

A. We did.

Q. And the location of their tract in the unit area?

A. Yes.

Q. And did they express any problem or concern with it at this time?

A. No, they didn't.

MR. CARR: Mr. Examiner, there is no Exhibit 5 in the exhibit packet. That was to be a letter from the State Land Office, and with your permission, as soon as that is received we will submit a copy to the Division and to Mr. Bruce.

EXAMINER JONES: Okay.

Q. (By Mr. Carr) Mr. Clark, let's go to what's been

marked as EnerQuest Exhibit 6. Would you identify that?

A. Exhibit 6 is Exhibit "B" of the unit agreement and the unit operating agreement. It lists the interest of the royalty owners, the working interest owners and the overriding owners on a tract basis.

Q. So we have all interest owners and all tracts identified in this exhibit?

A. That's correct.

Q. Does this show the unit participation for these individuals, or just their individual tract?

A. Just their individual tract.

Q. What percent of the working interest is at this time voluntarily committed to this unit?

A. We have 88 percent.

Q. And at this time what percent of the royalty interest is presently committed?

A. Sixty-seven and a half percent.

Q. And that does not include the State of New Mexico at this time, does it?

A. That's correct.

Q. Can you just summarize generally your efforts to obtain the voluntary approval of the working interest and royalty interest owners in the unit area?

A. Well, we have -- you know, we've had all the meetings with the working interest owners. And as far as

the royalty owners, we again sent out the unit agreement a couple months ago and have -- along with the ratifications, and that's all -- we haven't had any personal follow-up contact on people that have not returned the ratification at this point.

Q. If the Oil Conservation Division approves the unit agreement and authorizes statutory unitization, do you anticipate any problem obtaining the necessary 75-percent ratification to put this unit into effect?

A. No, I do not. When we had this unit last year we never could break the 50-percent barrier, and that was following up on phone calls and everything. And we already have 67 1/2 percent within the last month or so, so getting the additional information I think will not be a problem.

Q. Are Exhibits 7 and 8 notice affidavits confirming that notice of this hearing on each of the Applications has been provided in accordance with the Rules and Regulations of the Oil Conservation Division?

A. Yes, they are.

Q. As the statutory unitization Application, has notice been provided to all interest owners in the unit area, including the Commissioner of Public Lands?

A. It has.

Q. And as to the waterflood, has notice been provided to the surface owner of the tract on which each of

the subject injection wells are located?

A. It has.

Q. Have we also notified all leasehold operators within one-half mile of each injection well?

A. Yes, we have.

Q. Will EnerQuest call a witness to review the geological and engineering portions of this case?

A. They will.

Q. Were Exhibits 1 through 8 either prepared by you or compiled under your direction?

A. They were.

MR. CARR: At this time, Mr. Examiner, we would move the admission into evidence of EnerQuest Exhibits 1 through 8.

MR. BRUCE: No objection.

EXAMINER JONES: Exhibits 1 through 8 are admitted into evidence.

MR. CARR: And that concludes my direct examination of this witness.

EXAMINER JONES: Mr. Carr.

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Mr. Clark, you stated that in early 2002 an Application was filed here with the Division for statutory unitization, and I believe you stated that the unit

agreement wa sent to the working interest owners. Was it sent to the royalty owners at that time?

A. It was sent to the royalty owners about a month later. It was initially the working interest owners, to get them so that they would do it, and then -- That was in January, and in February we mailed it to the royalty owners.

Q. Is -- and I just want to clarify. Is the unit area that was proposed about a year ago the same as the unit area that you're seeking approval for today?

A. Yes.

Q. Okay. Now I'm looking at your Exhibit 3, which is the unit agreement, Mr. Clark, and then Exhibit 6, which is a portion of the unit agreement. You mentioned that certain interests were acquired from Lynx Operating Company. Were they acquired from anyone else?

A. Well, when we say Lynx Operating Company, Lynx is the operator.

Q. They weren't a working interest owner?

A. Pardon?

Q. Lynx itself was not a working interest owner?

A. It was not a working interest owner. It was owned by Vincero Oil and Gas and Dreka, Inc.

Q. Okay, and you acquired those two -- or EnerQuest acquired those two interests?

A. That's correct.

Q. In which tracts?

A. The Laney Reese, which is Tracts 7 and 8.

Q. Seven and 8. It's the same quarter-quarter section, but there's different ownership as to certain leases, so there's --

A. The Laney Reese, the Tract Number 7, is producing out of the upper P1 zone, and the Laney Reese Number 2 and 3 are producing out of the lower, the P2 through P4 zones.

Q. Okay. Did Enerquest acquire any interest from the Key family?

A. No, we did not.

Q. Okay, and what tract are they in, or tracts?

A. The Key family is in Tracts 5 and 6, the Laney and the Laney A.

Q. Okay. Mr. Clark, I'm handing you what's been marked Lowe Exhibit 5, and you might not have -- what I've copied there -- and if you don't -- if you can't identify it, fine. But what I'm informing you of is that this is a portion of the unit agreement that was filed with -- that was proposed last year.

A. Okay.

Q. Do you recognize that?

A. Yes, I do.

Q. Okay. And it's dated the 1st day of January,

2002.

On page 6 of the exhibit there's the tract participation section of the unit agreement. The tract participation factors have been changed since last year, have they not?

A. Yes, they have.

Q. Okay. And Mr. Williamson can discuss the tract participation further?

A. Yes.

Q. And also the last page of it, Exhibit "C", the tract participation numbers have also changed quite a bit since last year, haven't they?

A. The tract participation factor, that last column?

Q. Yes, the Exhibit "C".

A. Yes, it has.

Q. Okay. So if you look at Exhibit "C", the last page of your Exhibit 3, and compare it to Exhibit "C" of Lowe Exhibit 5, that would show the changes in tract participation between last year and this year; would that be correct?

A. That's correct, that's right.

Q. Okay. They're the same tracts involved, but there's a different tract participation formula?

A. That's right.

MR. BRUCE: Okay. That's all I have of Mr.

Clark, Mr. Jones.

EXAMINATION

BY EXAMINER JONES:

Q. Okay. Mr. Clark, can you explain again the Lynx -- They were not a working interest owner?

A. Well, when we say the Lynx group, Lynx was the operator for Vincero Oil and Gas -- The record title was held by Vincero Oil and Gas on the majority of it.

Q. I'm sorry, what's the name of it?

A. Vincero, V-i-n-c-e-r-o. And they also had another group, Dreka, D-r-e-k-a, Inc.

Q. But they were the operator for them?

A. They were operating -- They operated under the name of Lynx, but the title was held in Vincero and Dreka's name.

Q. So EnerQuest bought the working interest from Vincero and Dreka?

A. We bought working interest, and they had some royalty and overrides that we purchased all that, or from their partners too. The royalties were owned by individuals.

Q. Okay, and this Laney and Laney A, the Tract 5 and 6 --

A. Uh-huh.

Q. The Key family group, that has changed some too

since last year?

A. We've had -- Part of the Key family has agreed to the new formulas, and they've ratified the unit.

The other ones have not really done -- I mean, they've indicated that they're going to be selling their interests. You know, they filed a notice just to protect themselves. They haven't ratified the agreement, but they're not particularly opposing us. I mean, I know that they've filed an appearance for this hearing, but they're not actively opposing us at this point.

Q. Okay. The other appearance we had in the case was a royalty -- I want to say a royalty interest owner.

A. Uh-huh.

Q. Are you familiar with their --

A. Yes.

Q. -- position?

A. Yes.

Q. Can you go over that a little bit?

A. Well, you know, they were against it last year too, and they never did ratify it at that point. And they had a larger tract factor at that time. They're in the Samuel Cain, it's Tract Number 12.

Q. That's Tract Number 12.

A. Right. And I think in the letter, at least the copy of the letter that I received, they had enclosed a

copy of the letter they wrote in the case last year. And at that point they were arguing about what usable wellbores were.

And then we had -- You know, I received that letter yesterday right before I left, and that's the only thing I've heard from them, it's just -- and I received that copy yesterday.

EXAMINER JONES: Okay, I guess we're going to talk later about use of the wellbores and the way you derive the participation parameters; is that correct?

MR. CARR: What we're going to do is explain the new participation factor. We're not going to go back into the old one. The old one drew a lot of objection. We were told to go to the working interest owners. We have done that, and we have a new participation formula based on what they have approved.

EXAMINER JONES: Okay, and that participation formula would be for the secondary recovery, or would it be for the primary recovery, or...

MR. CARR: Mr. Jones, we're statutorily unitizing. You may use that statute only for secondary recovery or...

Q. (By Examiner Jones) Okay, and the Samuel Cain tract, that Tract 12, the wells that -- it mentions something about some of the wells being shut in at an

earlier -- and maybe the wells were still producing at the time. Is that -- Were the wells beyond the economic limit when they were shut in?

A. I don't know on the -- I mean, I can't answer that.

Q. Okay, that was Tract 12. That would be -- it looks like on your map here -- now, this map -- Let's see, this is Exhibit Number 2, okay? And you said everything was up to date on the map. And I was going to ask you, is the well status up to date also on that map?

A. As far as additional wells being plugged out?

Q. Yes. In other words, like -- for instance, Tract 12, it has wells Number 5 and 6 showing -- looks like producing oil wells. Are they still --

A. Oh, yes, the Samuel Cain is still producing. I know that they -- I think their lawyer said that, you know, we had intentionally cut that production, and we haven't, you know, shut down any leases out there. We're producing all the leases at this time.

Q. Okay, because EnerQuest is the operator of that tract anyway, so...

A. Well, yeah, except for the Texland we operate every tract out there now.

EXAMINER JONES: Let's see here. Mr. Brooks?

MR. BROOKS: No questions.

EXAMINER JONES: Okay, thanks a lot.

THE WITNESS: Thank you.

MR. CARR: Mr. Jones, can I just follow up on one thing?

EXAMINER JONES: Sure.

REDIRECT EXAMINATION

BY MR. CARR:

Q. I want to be sure the record is clear on this point, Mr. Clark. Has EnerQuest shut in any well or restricted production in any way on any lease to affect the ultimate share of those owners would have in the unit if approved?

A. No.

MR. CARR: That's all.

With your permission, at this time I'd call Roy Williams.

ROY WILLIAMSON,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. CARR:

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

A. My name is Roy Williamson.

Q. Mr. Williamson, where do you reside?

A. I live in Midland, Texas.

Q. By whom are you employed?

A. Williamson Petroleum Consultants.

Q. And what is your relationship with EnerQuest Resources, LLC?

A. I am a consultant to them.

Q. And you've been working on this project and advising them on this project; is that correct?

A. That is correct.

Q. Have you previously testified before the New Mexico Oil Conservation Division?

A. Yes, I have.

Q. And at the time of that testimony were your credentials as an expert in petroleum engineering accepted and made a matter of record?

A. Yes, they were.

Q. Are you familiar with the Applications filed in these consolidated cases?

A. Yes.

Q. Have you made a technical study of the area involved in the proposed East Hobbs-San Andres Unit area in the East Hobbs-San Andres Pool?

A. Yes.

Q. Are you prepared to share the results of your work with the Examiners?

A. Yes, I am.

MR. CARR: Are Mr. Williamson's qualifications acceptable?

MR. BRUCE: I have no objection.

EXAMINER JONES: His qualifications are accepted.

Q. (By Mr. Carr) Mr. Williamson, you're going to be testifying about four general things, the geology, the engineering, the waterflood project and then the EOR credit; is that correct?

A. That is correct.

Q. And have you prepared exhibits for presentation on each of those parts of your testimony?

A. Yes, I have.

Q. Let's go to the geology, and I would ask you to first identify the formations that are to be unitized in the proposed East Hobbs-San Andres Unit area.

A. The formation to be unitized is the San Andres formation. There are various zones that have been identified just for correlation purposes, but basically it is the San Andres formation.

Q. Let's go to Exhibit Number 9. Would you identify that, please?

A. There are no numbers on these, but I guess they're in order.

Q. Exhibit Number 9 is the type log.

A. Okay, Exhibit 9 is a type log. It is from the

Carrie O. Davis Number 5 well, and it's located 1310 from the south and 330 from the west, Section 29, Township 18 South, 39 East.

Q. Is this the type log that's used to identify the unitized interval in the unit agreement?

A. That is correct.

Q. And what is the interval that is going to be unitized?

A. The unitized interval is going to be from 50 feet above the top of the San Andres to 50 feet below the know productive interval, which is a subsea of around minus 1020.

Q. And you talked about certain intervals that are defined within the San Andres in this area for the purposes of correlation. What are those?

A. From the top of the San Andres we have the P1, the P2, the P2B, the P3, the P4 and the P5.

Q. And what intervals are going to be the principal intervals for the purpose of implementing a waterflood project?

A. It will be the P2 through the P4 zones.

Q. As we move through this, you'll be reviewing the development of the reservoir, but initially can you tell the Examiner whether or not the portion of the reservoir which is covered by this unitization Application has at

this time reasonably been defined by development?

A. Yes, it has.

Q. Let's go to what has been marked as EnerQuest Exhibit Number 10. I'd ask you to first identify that. That is the structure map. Is that marked on your set, Mr. Williamson?

A. Right, I see it now.

Q. All right. And would you first identify this and then explain what it shows?

A. This is a structure map that is based on the top of the San Andres P2 zone, and it shows the structure of this formation as it lies within the unit area. You can see on the map there are various subsea numbers there that relate to what the actual subsea top of that P2B zone is in each well.

Q. And the P2 is the top interval that's going to be subject to active waterflooding?

A. That is correct.

Q. And by looking at this, you have shown the unit boundaries and how they relate to the San Andres structure that is the subject of this Application?

A. That is correct. If you look at this exhibit you'll see that the proposed unitized area basically covers the structure that is identified as the P2 structure in the San Andres.

Q. Let's go to what has been marked as Exhibit Number 11. Would you identify and review that?

A. Okay, Exhibit Number 11 is a net pay isopach from the top of the P2B to the bottom of the productive interval in the San Andres. And as you can see, there are some numbers that are on that map, and those are the thickness numbers that were used to create this map.

It generally looks like the structure map, it's obviously the thickest in the middle and it feathers out toward the edge of the unit. But again, you can see that the net pay isopach conforms very well with the proposed unit outline.

Q. In your opinion, will all tracts that are included within the unit contribute to the waterflood effort?

A. Yes.

Q. And based on this map alone, is it fair to say that the contribution of the tracts may vary substantially but they all do contribute at some level?

A. That is correct.

Q. Let's go to Exhibit Number 12. Would you identify that, please?

A. Okay, Exhibit 12 is a structural cross-section that's denoted by the letter C-C'. And if you look in the lower middle center of this cross-section you'll see the

unit outline, and this trace of this structural cross-section is shown by the black line and shows the wells that are included in this cross-section.

The cross-section itself shows the correlation between the various zones within the San Andres, and they are connected by a solid line from well to well.

At the bottom of the log section that you see there, there is a history or initial history of these wells, where they were perforated, what their initial potential in production was.

And if you look at the very bottom, there is a production curve for each of these wells that shows the production that is occurring from these wells at this time.

Q. Now, what does this tell you generally about the San Andres formation in the unit area?

A. Well, it tells us that we do have a continuity of zone, which is what you're going to need to create a waterflood. You want to put water in the ground and push oil to a well. We see that correlation that exists across this area and again shows that the proposed project that we'll be talking about in a moment should be successful.

Q. So it is your opinion that the proposal is a feasible way to enhance recovery from the area?

A. Yes, it is.

Q. Now, on the cross-section we have included all

wells, have we not, that actually penetrate the P2 through the P4 sections in the unit area?

A. That is correct. The other wells that are in the unit area, that are producing, are producing from the uppermost zone or the P1 zone.

A. If we look at this cross-section and go to the well on the extreme right, that is the well -- that's the Lowe State Number 1 on the tract in which the Lowe Partners own an interest; is that correct?

A. Right, it's the far well on this cross-section, yes.

Q. And that is the only well on the cross-section shown on this particular lease?

A. That's correct.

Q. Okay. Can you review just briefly the intervals from which that well has produced?

A. Okay, this well, if you look at the bottom of the log it was produced open-hole from 4424 to 4470, which is basically the P1 zone. It IP'd for 212 barrels of oil and 96 barrels of water. That was back in 1953. The cumulative production is 271,000 barrels of oil plus 1744 MMCF.

It was deepened to 4673, which is actually a little below what the section is that's shown on the cross-section, and that was done in 1997. And the open-hole

potential was a trace of oil, 370 barrels of water, and 27 MCF per day.

There was a polymer squeeze tried in 1997 to try to alter the water production, but it was unsuccessful.

Q. Mr. Williamson, in this well, since it was drilled in 1953, the only oil produced from the zone that's subject to the waterflood is indicated as the trace that was encountered following the deepening of the well in 1997; is that right?

A. That is correct.

Q. The remainder of the production has come from the P1 interval?

A. That is correct.

Q. Do you have any idea what the producing rate of that well is today?

A. I looked at the rate, I think it's making around a barrel a day, something like that.

Q. And do you have any idea what the lease operating costs are at this time?

A. I would imagine the lease operating costs are in excess of $1500 to $2000 a month.

Q. Is that all related to the water removal?

A. Yes.

Q. Now, there is one other well on the state lease, on the Lowe State lease, the Well Number 2. That's not

shown on this cross-section, is it?

A. No, it isn't.

Q. And why is it not indicated or shown here?

A. Because it has not penetrated any zone below the P1 zone. It is currently producing from the P1 zone.

Q. When you compare the location of the Number 2 well, the well that's only in the P1, to the Lowe -- the other well on that spacing unit, is the Number 2 well structurally higher or lower?

A. It's structurally lower.

Q. And what would that tell you about the potential for recompleting or deepening that well?

A. It would be minimal.

Q. Do you have an opinion as to whether or not the Lowe State lease will make any significant contribution to the waterflood project?

A. Under its current state -- and I'm not sure we made it clear -- the Lowe State Number 1, which is on the cross-section, is actually plugged. And the one barrel a day that we're talking about is coming from the Lowe State Number 2 in the P1 zone.

So the contemplated flood is the P2 through P4. Since one well is plugged and the other well has not penetrated the P2-4, I can see where it would be very remarkable if any benefit would occur from the waterflood.

Q. At the current time the interest owners in that tract are sharing in the one barrel a day that's being produced from the well?

A. That's correct.

Q. How close to its economic limit is the remaining producing well on that tract?

A. I would say it's very close. I haven't really tried to make an economic study, knowing what the actual operating costs are, but I would say that that well's probably got only a few hundred dollars of value left at this point in time.

Q. That's total?

A. Total.

Q. Can the portion of the pool which is included in the proposed unit area be efficiently and effectively operated under the proposed unit plan?

A. Yes, it can.

Q. Do you believe that the boundaries of the unit as proposed reasonably conform to the portion of this reservoir which will contribute reserves to the waterflood project?

A. Yes, I do.

Q. All right, let's go to the engineering portion of the case. Are you familiar with the New Mexico Statutory Unitization Act?

A. Yes.

Q. Let's go first to what has been marked EnerQuest Exhibit 13, and I'd ask you to review the information on that exhibit with the Examiner.

A. Okay. Exhibit 13 is an outline of what the proposed ultimate pattern will be when this project is in its completed form.

If you'll notice in the lower left-hand corner, there is a legend that shows the status and what will happen to various wells. The key thing is that the orange wells are going to be drilled as injection wells, and they are going to be spaced so as to properly sweep the reservoir toward the producing wells.

Now, I can go through each and every well, whether it's a re-entry or whether it's a new drill or whatnot. But I think it's fairly clear this is what the pattern will look like upon completion of the project.

A. This is the final full-scale waterflood pattern; is that right?

A. That's right, once all the work is done this is what it should look like.

Q. And as we'll go into later, what we're seeking here today is approval of the unit and approval for the first four injection wells in the unit area; is that right?

A. That is correct.

Q. And then subsequent injection wells would require follow-up C-108 applications to the Oil Conservation Division?

A. Right, as the work is accomplished those requests will have to be made.

Q. Let's go to what has been marked for identification -- I hope yours is marked on the back, it's Exhibit 14, comparative production schedule, a two-page exhibit.

A. Yes.

Q. Could you identify and review that for the Examiner?

A. Okay, these are production and cash-flow projections. And if you look in the upper left-hand legend, your top page will say "East Hobbs Primary (Summary)". What this is is a projection of the production and the income that would occur from the production as it exists today if we did not put in a waterflood.

If you go page 2, again it's the upper left-hand corner, it says "East Hobbs Unit Waterflood - Proposed Case". This is what the proposed production and cash-flow projection will look like after the project is put in.

Q. Now, with this exhibit you haven't factored in any economic benefit that might come from qualification for the Enhanced Oil Recovery Act incentive tax rate; is that

correct?

A. That is correct, it is not in here.

Q. If we look at the first page, can you estimate what the remaining primary recovery would be and show us where on this exhibit that number can be found?

A. Okay, I'll just run through the columns. The left column is, of course, the date, well count.

Gross production, under the oil column, at the bottom you see a grand total of 921,551 barrels of oil. And then under gas you've got 1,199,635 MCF. That is the gross production that's projected from extrapolation of the existing production to an economic limit with no additional waterflood help.

And then it's netted to the interest. We use an average price. Actually, the oil price is a flat price of $25 less a differential, which results in an oil price of $23.16 per barrel.

Gas has a starting price of $4 per MMBTU. Minus that differential gives us a net price of $3.64 per MCF. And those prices were held constant throughout the life of the project.

Following down at the bottom we have operating expenses, we have taxes, operating income, resulting in the far right-hand corner, we have a cash flow discounted at 10 percent.

Q. And what is that cash flow?

A. The cash flow, PW10, is $7,072,958.

Q. And that's what the interest owners in this area receive if nothing is done and we just deplete the wells in the area to their economic limit?

A. That is correct.

Q. All right, let's go to the next page.

A. Okay, the next page, the column identification is the same, but you'll note that the gross production is now 9,681,006 barrels. That's up from 921,000, so that's almost a tenfold increase.

The gas is 3,020,220 MCF.

And you go through the net production, the same prices.

Operating expenses are higher because you're going to have more wells and you're going to have a longer life.

Again through the columns, taxes, operating income, over to the lower right-hand column, a cash flow projection discounted at 10 percent, and that number amounts to $80,634,688.

Q. So you have more than a tenfold increase in terms of the actual benefit from the waterflood?

A. That is correct. But I will point out, the waterflood case includes the primary case. So that is a

summary of both of those projections.

Q. But again, it's still right at tenfold?

A. Right at tenfold, yes.

Q. In preparation for this hearing, have you looked at the Lowe State lease on a stand-alone basis?

A. Yes, I have.

Q. And have you been able to estimate the additional recovery that will come to that particular lease if it's included in the waterflood project?

A. Yes, I have.

Q. And what did your work show?

A. It showed that with this participation formula and this performance, that the Lowe State lease will receive approximately $14,000 of income from the unit operation.

Q. And how does that compare to what it would receive if it were just left to the remaining primary that can be recovered from that tract?

A. Well, I think that a remaining primary would probably be $200 or $300 at best.

Q. And how-many-fold increase does the Lowe lease experience by being included in the unit area and waterflood project?

A. Something in excess of 40 to 1.

Q. So the unit as a whole has a 10-to-1 increase?

A. Correct.

Q. That tract would receive a 40-to-1 increase?

A. That is correct.

Q. In your opinion, is that a fair, reasonable and equitable way to treat the Lowe property?

A. Well, it certainly is. And also, they do not have to bear any of the cost, whereas the unit operators, working interest owners, are going to have to pay, obviously, the working interest costs, whereas the Lowe State and override has no cost-bearing interest.

Q. Let's go to what has been marked as Exhibit 15. Would you identify that, please? And again, it's marked on the back.

A. Okay, Exhibit 15 is a production and cash flow projection that is the difference between the two projections we've just been talking about. In other words, we have had before a remaining primary, then we had a primary plus secondary. So if you subtract those two, you come up with this exhibit which shows how much additional oil and value are attributed to the incremental oil and gas production that will be occurring from this unit.

And that number on the gross production, the oil number is about 8.8 million barrels of additional oil, and under the PW10 cash flow that number is about $73.6 million present worth, PW10, that is a benefit of the waterflood

project.

Q. Is the unitized management, operation and development of the unit area, in your opinion, necessary to substantially increase the ultimate recovery of oil from this area?

A. Absolutely.

Q. In your opinion, would the additional costs of conducting these unitized operations exceed the estimated value of the additional recovered oil?

A. Ask that again, to be sure I --

Q. Would the additional --

A. -- understand it.

Q. -- costs exceed the value of the --

A. No --

Q. -- oil --

A. -- it will not.

Q. Let's go to Exhibit 16. Would you identify that, please?

A. Okay, Exhibit 16 is a production curve. And in the left margin you have daily rates, the bottom margin is time, and the water production is denoted by the blue line, gas production by the red line, and oil by the green line.

So you can see if you follow the rather smooth line that goes from the existing production, you see that it goes for a period of time flat, and then it begins to

decline, and that is the projection that was used to determine the cash flow for the as-is or primary case.

Now, if you look on there, also there's a black line with some little x's in it, and that shows the proposed time at which injection into this proposed waterflood project would begin. And again, look on the red line. You can see the gas increases. The green line, the green increases. And that increase is a representation of the response that will be expected from the water injection. And that projection is what was used to make the waterflood plus primary cash flow and production projection.

And then the increment in between there is what Exhibit 15 showed. Exhibit 15 shows that incremental between the remaining primary and the expected response from the waterflood.

Q. Let's go to Exhibit 17. Would you identify and review that?

A. Okay, Exhibit 17 is -- the first part of it is a replication of Exhibit 16. But what it does, it extends the life -- or it shows the extension of the life out to the economic limit. And if you'll notice, right now we're sitting here in 2003, and under the waterflood operations the economic limit will not be achieved until 2038. So we've got some 35 additional production years that are

added as a function, a direct function, of this waterflood project.

Q. What is the basis for participation set forth in the unit agreement?

A. The participation is based on a 97-1/2-percent current rate for the period 12-1-01 to 11-1-02, I think. Let me check.

Q. 11-30.

A. 11-30. And plus 2 1/2 percent based on acreage contributed to the unit.

Q. In your opinion, does this formula allocate production to the separately owned tracts in the proposed unit on a fair, reasonable and equitable basis?

A. Yes, it does.

Q. In your opinion, will unitization and adoption of the proposed unitized method of operation benefit the working interest owners and the royalty interest owners in the area affected by the Application?

A. Very definitely.

Q. Does EnerQuest seek authority in this case to commit additional wells to injection at orthodox and unorthodox locations, pursuant to the administrative procedures authorized by the 700 series of the Rules of the Oil Conservation Division?

A. That is correct.

Q. Does EnerQuest further request that the order that results from this hearing contain a nonconsent penalty to be charged against any interest owner not voluntarily committed to the unit and therefore carried by the committed interest owners?

A. That is correct.

Q. And what penalty do you recommend?

A. Two hundred percent.

Q. And what is the basis for that?

A. Well, the interest owner that's paying the money and taking the risk should have some advantage over the person who does not choose to take that risk at the beginning, and in my opinion a 200-percent penalty is a fair way to allocate that risk.

Q. Mr. Williamson, let's now go to the waterflood Application. Would you refer to what has been marked for identification as EnerQuest Exhibit 18?

A. Okay, Exhibit 18 is the Form C-108, which is Application for Authorization to Inject.

Q. Does form contain all information required by Form C-108?

A. Yes, it does.

Q. And it identifies the wells for which EnerQuest is seeking injection authority?

A. That is correct.

Q. And we're only seeking authority for four wells at this time?

A. At this time, correct.

Q. Is this the expansion of an existing project?

A. No.

Q. Could you refer to page 6 of Exhibit 18? Identify that and review it for the Examiner.

A. Okay, Exhibit 6 shows the area of review around each of the injection wells that is required by the statute to identify the wells that are within that particular area, and it's a circle with a one-half-mile radius around each well.

Q. Does this map also show all wells within two miles?

A. Yes.

Q. And the data that is required by this form is set forth on a subsequent table; is that correct?

A. That is correct.

Q. Could you just briefly identify what is marked page 7 of Exhibit 18?

A. Page 7 is an exhibit that shows the various leases. It shows the operator of those leases and has the tract numbers that are spelled out on that map.

Q. When we look at Exhibit 18, does it contain all information required by the Division for a full Form C-108

for each well in any area of review which penetrates the injection interval?

A. That is correct.

Q. And where is that information set out? Where is that table?

A. It's on page 8, which is immediately following, and it's entitled "Tabulation of Data on Wells in the Review Area - Application for Authorization to Inject".

Q. And this describes the type of the well?

A. Correct.

Q. It contains information on the date they were drilled and the construction?

A. Correct.

Q. And it shows the record of completion and all other information?

A. Casing setting, et cetera, yes.

Q. Are there plugged and abandoned wells within any of these areas of review?

A. Yes.

Q. And does this exhibit contain schematic drawings on all plugged and abandoned wells in the area of review?

A. Yes, it does.

Q. And where are those found in Exhibit 18?

A. Those are pages 9 through 18.

Q. Actually included in the exhibit are plugging

information on certain wells which don't even penetrate the injection interval, but all wells have been included; is that correct?

A. That is correct, the wells that are not into the P2-P4 zone that will be part of the project are actually included in here as though they were, but they're not.

Q. In your opinion, are all plugged and abandoned wells plugged so as to prevent migration of injection fluids from the injection interval?

A. Yes.

Q. What are the injection volumes that EnerQuest is proposing?

A. The proposal is an average daily rate of 500 barrels of water per well per day, with a maximum daily rate of 700 barrels of water per day per well.

Q. And this information is set forth on page 19 of this exhibit?

A. I believe that is correct. Yes, it is.

Q. And what is the source of the injection water?

A. The injection water will be produced water from the San Andres formation within the East Hobbs-San Andres Unit.

Q. Does EnerQuest propose to use any fresh water as makeup water?

A. No.

Q. Does Exhibit 18 contain produced water samples that show the constituent elements in the injection fluid?

A. Yes, it does.

Q. And are those on pages 21 and 22?

A. Twenty-one and 22, yes.

Q. Will this be an open or closed system?

A. It will be a closed system.

Q. And what injection pressure is EnerQuest seeking?

A. The average injection pressure is probably going to be around 600 p.s.i.g.

Q. And the maximum pressure?

A. The maximum will be 890 p.s.i.g.

Q. Will these injection pressures be below .2 pound per foot of depth to the top of the injection interval?

A. Yes, they will.

Q. If EnerQuest should need to increase these pressures, would they first obtain approval to do so by having the Division witness step-rate tests run on the well to confirm that the pressures can be increased without harming the formation?

A. That is correct, they will be done.

Q. Have you reviewed the data available on wells within the area of review for this waterflood project and satisfied yourself that no remedial work is required on any of these wells to enable EnerQuest and others to safely

operate this project?

A. Yes, I have.

Q. What is the current status of the wells EnerQuest is proposing to utilize for injection?

A. Exhibit 18, pages 3 and 4, I have injection well data for each proposed well. These locations are not exact, they may be moved a few feet. There's an injection well data sheet. And the proposed stimulation is a small acid job in the San Andres, 3000 gallons of 15-percent HCl acid, mainly for cleanup.

Q. And each of these wells will be newly drilled wells for the purpose of injection; is that right?

A. That is correct.

Q. How will EnerQuest monitor these wells to assure the integrity of the wellbore?

A. Well, two ways. The annular space will be filled with an inert fluid, which will prevent any contamination or any deterioration of the pipe. Pressure gauges will be monitored at the surface, as required by the Federal Underground Injection Control Program.

Q. In your opinion, will the proposed injection pose a threat to any underground source of drinking water?

A. No.

Q. Are there freshwater zones in the area?

A. Yes, the Ogallala, according to the State

Engineer.

Q. And according to the State Engineer's records, at what depth do we find the Ogallala?

A. The producing intervals are from 50 to 200 feet, and 200 feet being the lower limit.

Q. Are there any other freshwater sources overlying the oil-producing intervals?

A. No, there are not.

Q. Are there freshwater wells within a mile of any proposed injection well?

A. Correct, there are, according to the records, about 50 permitted wells in the area of review. I was not able to determine how many of those actually are producing, but there are a lot of them in there.

Q. But the State Engineer has indicated that there are that many that they have permitted; is that right?

A. Correct.

Q. And those wells are listed in the C-108?

A. Yes.

Q. Is that on page 23?

A. Page 23, yes, sir.

Q. Does this exhibit also contain a water analysis from a freshwater well in the area?

A. Yes, it does.

Q. And where is that located?

A. That's on page 24.

Q. Mr. Williamson, have you examined the available geologic and engineering data on this reservoir, and as a result of that examination have you found any evidence of open faults or other hydrologic connections between an injection interval and any underground source of drinking water?

A. I have examined the available data, and I have not found any evidence of any open faults or hydrologic connection.

Q. Let's go now to the portion of the case related to qualifying this project for the Enhanced Oil Recovery Act incentive tax rate. Would you identify what has been marked as EnerQuest Exhibit 19?

A. Exhibit 19 is entitled "Application of EnerQuest Resources, LLC for Enhanced Oil Recovery Project Qualification for the Recovered Oil Tax Rate for the East Hobbs (San Andres) Unit, Lea County, New Mexico".

Q. Have you reviewed the Application?

A. Yes, I have.

Q. In your opinion, does it contain all information required by Division Rules?

A. Yes, I think the Application is complete.

Q. What are the estimated additional capital costs to be incurred in this waterflood project?

A. In excess of $7 million, approximately $7.1 million.

Q. And what will be the total project cost over the life of the project?

A. Approximately $17.9 million.

Q. How much additional production does EnerQuest expect to obtain from this project?

A. Approximately 8.8 million stock tank barrels of oil and about 1.8 BCF of gas.

Q. And what is the total value of this additional production?

A. This additional production, as we've discussed earlier, it is about $73.5 million.

Q. And what do you base that on?

A. PV10. It's based on the cash flow projections that were prepared, the incremental between the as-is primary and the performance with the proposed waterflood.

Q. And those were shown on Exhibit 15?

A. Correct.

Q. Does Exhibit 19 set out the production history and production forecast for oil, gas and water from the project area?

A. That is correct.

Q. And these are the same projections that were previously presented as part of your engineering testimony?

A. Correct.

Q. In your opinion, will approval of these consolidated Applications for statutory unitization and the implementation of the proposed waterflood project be in the best interests of conservation, the prevention of waste and the protection of correlative rights?

A. Yes.

Q. Were EnerQuest Exhibits 9 through 19 either prepared by you, or have you reviewed them and can you testify to their accuracy?

A. That is correct.

MR. CARR: At this time, Mr. Examiner, we would move the admission into evidence of EnerQuest Exhibits 9 through 19.

MR. BRUCE: I have no objection.

EXAMINER JONES: Exhibits 9 through 19 will be admitted into evidence.

MR. CARR: That concludes my direct examination of Mr. Williamson.

EXAMINER JONES: Thank you, Mr. Carr.

Mr. Bruce?

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Mr. Williamson, looking at your Exhibit 10 --

A. Okay.

Q. -- which I believe you said is structure on top of the P2 zone?

A. Correct.

Q. Does the structure on the top of the P1 zone look substantially different than this map?

A. I have not mapped it. I would presume that it does not look greatly different.

Q. When the unit was originally proposed about a year ago, wasn't the unit outline based upon the P1 zone?

A. I did not work on this at that time. I don't know.

Q. In looking at your cross-section, Mr. Williamson, as far as porosity goes, the P1 zone has the best porosity in the San Andres, does it not?

A. That's correct.

Q. And is there production from the P5 zone in any of these wells?

A. Not that I know of. Some of these -- you can see on the cross-section a line, a green line, that says estimated limit, lower limit of production, and I don't believe -- I know there's not any production from the P5 zone.

Q. What line are you looking at? You said -- is it the -- Oh, I see, the green one.

A. Yeah.

Q. Okay, I didn't see that.

A. That's the subsea of a minus ten- -- about 1020.

Q. Is that a wet zone?

A. Below that, yes.

Q. Then why were -- Apparently a number of these wells were completed or drilled down to the P5 zone?

A. I would presume that they were done in an attempt to determine that the P5 zone could produce.

Q. Is that where the bulk of the water production is coming from, or is it coming from the P2 through P4?

A. I don't think any of the water is coming from the P5. The P2 through P4, you can look at the various IP zones, and there have been water production from those zones. But the P5 could be productive as water, but I don't have any tests on those.

Q. Do you know if the -- In all of these wells, is the P5 contributing to any water production in these wells?

A. I don't know.

Q. Can the P5 be isolated from the P2 through P4?

A. If necessary, I believe it could.

Q. It hasn't been done in any of these wells to date?

A. Let's see. I believe in the Cain Number 5, which is the third well from the left, that zone was tested and there were several cast-iron bridge plugs set. The last

one was at 4583, which would of course isolate everything below that bridge plug.

Q. On some of these others it doesn't look like the well, the Rocket-Cain Number 1 on the left side, the far left side of the cross-section, there is not a bridge plug there?

A. At this time there does not appear to be, no.

Q. And the same would apply to wells on the right side, the Carrie O. Davis Number 5, Number 2 and Number 1?

A. I believe that's correct.

Q. Do you have a map, or is it depicted on any of these exhibits where the -- Let's take a step back. Have all of these tracts produced from the P1 zone? All of the proposed unit tracts?

A. Yes. I believe that's -- Well, let me think, let me think. I know the wells that are not on this cross-section are currently producing from the P1. Let me see if these all -- It appears that the Cain Number 6 was never perforated in the P1 zone.

Q. Okay, but -- I'm not asking specific wells, but has each tract within the unit produced from the P1 zone?

A. Yes.

Q. How many tracts within the unit area are now producing from the P2 through P4 zones?

A. I've got to count the tracts. The wells that

produce -- or that are open in, I should say, in the P2-P4 zone are identified on this cross-section. So we just need to impose --

Q. Okay.

A. -- this cross-section structure on the tract map, and you can see where they are.

Q. Okay. So on your Exhibit 12, those contain the only wells that are producing from the P2 through P4 zones?

A. Well, some of them -- yeah, they're open in the P2-to-P4 zone, yes.

Q. Okay. So Tract 3 is not producing -- I'm comparing your Exhibit 2 with your Exhibit 12. Tract 3 -- Excuse me, Tracts 2, 3 and 4 and 9 are not producing or not open in the P2-through-P4 zones?

A. You're looking at what exhibit?

Q. Excuse me, Mr. Williamson, Exhibit 2, which -- It wasn't your exhibit, I believe it was Mr. Clark's. It's just the unit map.

A. Okay, I don't have that one.

Q. So anyway, comparing your cross-section with Exhibit 2, then, Tracts 2, 3 and 4 and 9 are not producing from or open in the P2-through-P4 zones?

A. Well, let me plot these on here before I answer that.

Okay, ask the question again, please.

Q. Okay, comparing your Exhibit 12 with Mr. Clark's Exhibit 2, it appears that unit Tracts 2, 3, 4 and 9 have no wells open in the P2-through-P4 zones?

A. That is correct.

Q. And as to Tract 11, the only well that you have on your cross-section is plugged and abandoned, so that tract is not producing from the P2-through-P4 zones?

A. Not at this time, no.

Q. And the Lowe State tract, Tract Number 10, that well is plugged and abandoned, so that tract is not producing from the P2-through-P4 zones?

A. That is correct.

Q. Okay. So basically you have -- And then on Tract 12, can you tell me if those two wells, the Number 5 and 6 wells, are they actually producing from the P2-through-P4 zones, or re they simply open, or was the well simply drilled to a depth sufficient to test those zones?

A. If you'll look on the cross-section, in the right-hand column of the cross-section at the top it says perfs --

Q. Okay.

A. -- and those perfs should be identical --

Q. Okay.

A. -- to what is in the box at the bottom --

Q. Okay.

A. -- so you can see. There's either an open hole designation or a perf designation, depending on which is the case.

Q. Okay. And so the Samuel Cain Number 5, that one is perforated in the P1 zone also, is it not?

A. Correct.

Q. So basically you've got -- from Tract 12 moving eastward over to Tract 1, you have P2-through-P4 production. Can you tell me what percentage of P2-through-P4 production is coming from the Laney Reese and the Laney Tracts, the 160 acres in the center of the unit?

A. I can get a copy of the well participation. They give you the period of production from 12-1-01 to 11-30-02.

Q. Okay.

A. I don't have that with me.

Okay, ask your question again, please.

Q. Okay, based on your exhibits, there's production from the P2-through-P4 zones from Tracts 1, 5, 6, 7, 8 and 12. Can you tell me -- and I don't know how that data is organized, but what is the P2-through-P4 production for that time period you discussed from Tracts 5 and 6, the Laney and Laney A?

A. Okay, 5, for that time period, which is 12-01 to 11-31-02, is 18.625005 percent.

Q. Okay.

A. And the Laney A, which is Tract 6 --
Q. Uh-huh.
A. -- is 20.338534 percent.
Q. Okay. What about Tracts 7 and 8?
A. 7 is 1.832257 percent.
Q. And Tract 8, please?
A. Tract 8 is 37.817175 percent.
Q. Okay. And then the balance would come from those other two tracts?
A. Correct
Q. Okay.
A. Well, there's actually production during this period from Tract 2 and 3 and 9, 10, 11 and 12.
Q. Isn't that P1 production?
A. It's all production from the well.
Q. But your cross-section contains all the wells that are producing from -- or open in the P2-through-P4 zone?
A. That's correct.
Q. Okay. Now, you said the produced water -- you're just going to use San Andres produced water for the waterflood?
A. Correct.
Q. Just the water that's currently being produced, or will there be makeup water?

A. There will be no makeup water. At least that's the current plan.

Q. Okay. In looking at your -- It's Exhibit 13, Mr. Williamson. I just want to make sure I've got some numbers right here.

A. 13, okay?

Q. Eventually, there are planned to be 19 injection wells; is that correct?

A. I believe that's right, if I haven't counted wrong.

Q. Okay, what is the time frame for fully implementing the waterflood project? And by that I mean, having all of the injection wells in place and injecting?

A. Well, that will, of course, depend on the rate that the money is spent, but I would say that the entire project could be -- should be implemented within a couple years, perhaps quicker. It depends on how actively the interest owners want to press development.

Q. I know they're not numbered on here, but I take it from your C-108 that the initial four injection wells are the four orange dots in the southeast quarter of Section 30?

A. Southeast -- They're the ones that are around the Laney A, the 3A well there.

Q. Okay. Will the P1 zone be flooded?

A. No.

Q. Now engineers, when they look at these projects, usually have some type of recovery factor, secondary to primary. What type of ratio are you using?

A. Roughly a 5-to-1 secondary over primary.

Q. On one of Mr. Clark's maps there was the -- I believe the North Hobbs and the South Hobbs-San Andres units. What's the recovery factor in those?

A. I have not calculated the recovery factor because I don't know what the oil in place is.

Q. Or excuse me, I didn't mean recovery factor. But what ratio of secondary-to-primary are they recovering in those units?

A. I don't know. I have a production curve on those two units, but I have not identified that ratio.

Q. Have you calculated the estimated primary recovery from the P2-through-P4 zones?

A. No, I have not separated the P2-P4 production from what is currently being produced from the P1.

Q. Isn't the vast bulk of production coming from the P1 zones, has come historically?

A. It has come. I would not expect it to be today. That zone has an edge water drive, and I would think that it's largely depleted from recoverable oil.

Q. Is your ratio of secondary recovery to primary

based upon the oil that's been produced from the P1 as well as the P2-through-P4 zones?

A. No, it's been on a study of the P2-P4 by itself.

Q. How much oil has been produced from the P2-through-P4 to date?

A. I don't have that calculation.

Q. How much remaining primary is there in the P2-through-P4 zones?

A. I have not made that calculation.

Q. Then how can you derive these figures on Exhibit 14 where you're showing on page 2, I presume, over in the left-hand column, you're claiming that you'll ultimately recover 9.7 million barrels, as opposed to 900,000 barrels remaining primary on page 1?

A. Well, it was based on a waterflood prediction model in the P2-through-P4.

Q. On page 1 -- I presume this is the remaining primary, 921,000?

A. Correct, that's the projection of the existing wells.

Q. Does that include P1 production?

A. If there's any P1 there, yes, it does.

Q. You said you're using a 5-to-1 ratio. Isn't this more like a 10-to-1 ratio?

A. What are you looking at, the --

Q. Oh, Exhibit 14.

A. Well, the second part of Exhibit 14 includes primary also.

Q. Okay.

A. It's just a projection of what's out there today.

Q. Just one final question, Mr. Williamson. Mr. Carr asked you a question about the penalty to be assessed against nonconsenting interest owners, and you stated 200 percent. Is that in the unit operating agreement anywhere?

A. I haven't read the unit operating agreement. I don't know.

MR. BRUCE: Okay, thank you.

EXAMINATION

BY EXAMINER JONES:

Q. Mr. Williamson, how did you process these logs? Did you do all the processing on these logs? I mean, this one well was drilled in the 1950s, and you've got a -- it looks like a processed pump volume water and oil and water saturation and lateral logs. I guess some of the wells are newer than that, aren't they?

A. Right, this was based -- this log analysis was really based on a very detailed central geophysical study. I've got the book here. It's about that thick.

Q. So it was some kind of a --

A. Davies, and so he analyzed all of the rock types

and everything and put it on these logs.

Q. Okay, so you didn't -- EnerQuest didn't go out and run any kind of cased hole water saturation logs like -- I suppose the PT to try to figure out what the water saturation is right now out there?

A. No, this was based on the petrophysical study.

Q. Okay. And your P1 zone, can we talk a little more about that? Because I notice that the -- in some of the wells the water saturation doesn't look too bad, and some of them it does, but your gamma rays are really clean in that zone, so it's probably got really good permeability.

A. Right, it is good, and I guess what I'm saying is, with the edge water drive, that I think that zone has essentially been flooded and no additional recovery could be obtained by injecting into it.

Q. I can understand you not wanting to waste water or cycle water through. Which edge is the water coming from? What direction was it --

A. Well, we've got -- I think we're -- If you look at the structure map you can see where we're going downdip in all directions. So I would presume that that water is coming from below from all directions. I have not tried to identify, you know, a specific direction. But looking at the production on the wells on each end, it's pretty

obvious it's coming fairly uniformly.

Q. Okay. Is that higher-permeability, higher-primary-recovery-zone also present in the east -- the north and south Hobbs units?

A. They're comparable zones, I have not tried to identify whether the porosity is, you know, identical to this or not. But the general formations are the same.

Q. And so your primary recovery percentage is -- was it somewhere between 10 and 20 percent?

A. Oh, it's somewhere around 5 percent.

Q. Five percent?

A. Right, very low gas saturation. That's why this waterflood will be successful, because the primary recovery has been so low in the P2-P4.

Q. Okay.

A. Not in the P1. If it was all like the P1, it would be a home run.

Q. Okay, the recovery at the end of secondary operations, what percentage is that expected to be or original oil in place?

A. Roughly a little bit -- with total -- The total secondary recovery is roughly 19 percent additional recovery of the oil in place.

Q. So we've got 5-percent primary, and you say the total secondary is 19?

A. Yes.

Q. That's the total of secondary plus primary?

A. Primary plus secondary is about 23 percent.

Q. Okay.

A. The two together.

Q. Okay. This production plot, you said, was generated from a simulation; is that right?

A. Yes.

Q. And in fact, is that just a -- one pattern like on a 40-acre --

A. It was a 40-acre pattern, it was a Craig, Giffin and Morse waterflood prediction model, and it was done on a 40-acre pattern with average properties and expanded over the area.

Q. Okay, so you first had to come up with these average properties based on the petrophysics of all of the leases going into this?

A. Correct.

Q. And then plug it into the model?

A. Yeah, this is an average -- These are average values that were determined by the petrophysical study.

Q. Okay. And that would be for the -- Did the model also predict the remaining primary? In other words -- Are those primary lines on the plots, or are they from the model or are they from --

A. Yeah, they're from the model for -- a 40-acre pattern, for instance, the primary EUR was 139,000 barrels and the secondary was 578. So it did predict both of those.

Q. Okay. So you really don't have a plot like this for every tract going into the proposed unit?

A. Well, we have a -- on this cross-section we have a production plot at the bottom for these wells. And the other wells, that could be generated. I just have not done that.

Q. Okay, let's see. And there are going to be new injection wells, at least the first four of them?

A. Yes.

Q. Will -- all injection wells --

A. If you refer back to Exhibit 13, you can see that the majority of them are going to be new drills. That red well up in the northwest quarter is going to be a conversion from a saltwater disposal to injection well. And then kind of in the middle on the left, that Cain 6, the pink circle is going to be converted from a producer to an injector.

Q. Are those open-hole producers, that last one you mentioned?

A. Let's see. No, sir, the Cain 6 is perforated, it's not open hole.

Q. Okay. On page 8 of Exhibit 18, it's just your tabulation of the wells in the area of review. You've got cement volumes on those. You don't have calculated cement tops for those, do you?

A. Sorry, say again, please?

Q. I was just asking if you had calculated cement tops on all the wells in the area of review. I notice you do have the sacks of cement that were --

A. Oh, no, I have not made that calculation. That would, you know, be easy to do.

Q. Now, are -- any of these wells have DV tools, to your knowledge? They're all one-stage?

A. As far as I know, they're all one-stage.

Q. Okay. And from last year's participation parameters to this year's participation parameters you say you've gotten a lot more -- I guess EnerQuest is saying they have a lot more people that have joined up as far as the working interest owners.

You have over 75 percent now, and you're anticipating that you're going to get hopefully 75 percent of the mineral interest owners?

A. That's what I understand, yes.

Q. Yeah, that's a question for the previous witness. But there's some big changes in some of these tracts in the participation parameters.

I guess I want to go back to, for example, Tract 12 from -- Last year it was 9.2, and this year it's two points. So just give me a rough reason why they changed around so much. You must have changed things to get better agreement among all of the tract owners.

A. Well, obviously the previous factor had a lot more parts to it. It was based upon four different parameters, and there was a not agreement enough to get everyone to agree to it. So the committee has been working hard for the last six or eight months to rework this to where everyone is agreeable.

And I think that's one reason to show that this formula that we currently have is fair and equitable, because there are a large number of -- percentage of people, have accepted it. And it's just looking at the fact that we're going to only flood one zone, the P2 to the P4, so a lot of the cumulative production or production that occurred in the past has no relationship to what's going to occur in the future.

Q. Well, your -- The North and South Hobbs Units have CO_2 and gas cycling going on, and those are going to be tertiary recovery, which is above and beyond secondary recovery, which your P1 zone -- you say that was naturally waterflooded.

When you eventually go to tertiary recovery out

here, which I assume you will do, that P1 zone will contribute, won't it?

A. It could. I have made no study, I don't know that there are any plans for that to occur. So I don't know.

Q. And where is the new participation parameters in our exhibits? Where is it calculated, I mean?

A. Well, let's see. I don't think I have a copy of the new -- Yeah, I do, somewhere here. You mean the formula or the tract?

Q. The formula.

A. The formula, which -- It's 2 1/2 percent acres and 97 1/2 percent production for the period December 1 of '01 through 11-31 of '02, a 12-month period.

Q. Okay, that's 99 1/2 percent. So you've got another half a percent, based on something else?

MR. BROOKS: I think he said 97 1/2 percent.

THE WITNESS: Well, 2 1/2 and 97 1/2.

Q. (By Examiner Jones) Okay.

A. Sorry.

Q. So there's no arguing about the acres, and -- just that production for that period. It's a much-simplified formula, I take it?

A. Yes.

EXAMINER JONES: Mr. Brooks?

EXAMINATION

BY MR. BROOKS:

Q. Would you characterize the primary -- the reservoir, primary -- that is within the vertical and horizontal limits of this unit -- from the point of view of primary production, would you characterize it as being in an advanced state of depletion?

A. Yes.

Q. Okay. Do you believe that this is the appropriate time to implement a secondary recovery operation by waterflood in this unit?

A. Yes, I do.

Q. And do you believe that for any reason that would be -- undertaking a waterflood project in this unit at this time would be either technically or economically premature?

A. I do not believe that will be the case.

MR. BROOKS: Thank you, that's all my questions.

EXAMINER JONES: Mr. Bruce?

EXAMINATION

BY MR. BRUCE:

Q. Just one question. One of Mr. Brooks' questions raised something, Mr. Williamson. Isn't the Laney Reese Tracts 7 and 8 combined producing at or near the top allowable?

A. Right, but I was referring to the project as a

whole.

Q. Yeah, I understand, but isn't that tract producing at or near top allowable?

A. Which tract again, sorry?

Q. The Laney Reese tract, the northeast quarter of the southeast quarter of Section 30?

A. That would be 7 and 8?

Q. Yes, sir. Are you aware that the allowable in this pool is 160 barrels of oil a day?

A. Yes. I have not actually plotted a production curve for that segment, so I couldn't support that. I've got the production for the 2 and the 3 well, but I don't have it for the 1 well.

MR. BRUCE: Okay, thank you.

EXAMINER JONES: Mr. Carr?

MR. CARR: Nothing further.

EXAMINER JONES: Okay, thank you very much, Mr. Williamson.

MR. CARR: May it please the Examiner, that concludes our direct presentation in this matter.

EXAMINER JONES: Okay, Mr. Bruce?

MR. BRUCE: I have one witness, Mr. Examiner.

RICHARD A. GILL,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. My name is Richard Gill.

Q. Where do you reside?

A. Midland, Texas.

Q. Who do you work for and in what capacity?

A. I work for -- actually employed at Maralo, LLC, which is the operating arm for Lowe Partners, LP. I'm the division engineer.

Q. Lowe Partners and Maralo are related entities?

A. Yes, they are.

Q. Have you previously testified before the Division?

A. Yes, I have.

Q. And were your credentials as an expert petroleum engineer accepted as a matter of record?

A. Yes, they were.

Q. Does your area of responsibility at Maralo encompass this portion of New Mexico?

A. Yes, it does.

Q. And are you familiar with the engineering matters related to this Application?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I'd tender Mr. Gill as

an expert petroleum engineer.

EXAMINER JONES: Mr. Carr?

MR. CARR: No objection.

EXAMINER JONES: Mr. Gill -- Can you spell your last name?

THE WITNESS: G-i-l-l.

EXAMINER JONES: Mr. Gill is so qualified.

Q. (By Mr. Bruce) Now, Mr. Gill, before we begin, in the abstract Lowe Partners does not object to unitization; is that correct?

A. Absolutely not.

Q. What's your point in being here today?

A. I feel that their participation factor is inequitable.

Q. Could you identify your Exhibit 1 and discuss its contents for the Examiner and what your proposal is for tract participation?

A. Okay. Exhibit 1 is what I would propose as the tract participation for this unit. It outlines the tracts with their subsequent participations. My proposal would be to do a two-phase system. I'm certainly aware of their -- the problems they have and that there's some newer wells in this field that are producing high rates, and obviously the working interest owners and royalty owners in those wells want their primary production, so I can appreciate that.

My concern is past that, in the secondary production, all the royalty owners outside of those tracts are not being treated fairly.

So I would propose a two-phase participation factor, where we use their equation through Phase I until the estimated primary recovery is recovered. I was using a number of primary recovery of 6.7. It looks like Mr. Williamson's numbers are different now. I was using some numbers that they had presented last year.

Q. Okay, so you didn't alter any of their numbers --

A. No.

Q. -- for ultimate primary, et cetera --

A. No.

Q. -- you used their numbers?

A. I used their numbers, I didn't even try to evaluate -- you know, do decline-curve analysis or anything. I accepted their numbers as valid numbers.

Then beyond that, at the point that they reach the estimated primary recovery, I would suggest that the participation formula go to a 97-1/2-percent ultimate recovery, plus 2-1/2-percent acreage.

Q. So your Phase I participation formula is exactly the same as what's in their unit agreement?

A. That's correct.

Q. And your Phase II would then take into account

estimated ultimate recovery?

A. That's correct.

Q. In using those numbers, then -- and you have set forth for each tract what those tract participation factors would be?

A. That's right.

Q. Okay. Do you believe that this allocates the produced hydrocarbons on a fair and equitable basis?

A. I believe it does.

Q. More so than the single-phase participation formula proposed by EnerQuest?

A. Yes.

Q. Have you seen a unit agreement before that simply used the last 12 months' production essentially --

A. No --

Q. -- for the primary --

A. -- not as a primary factor, no.

Q. What is Exhibit 2, Mr. Gill?

A. Exhibit 2 is a letter of basically support to our position from Small GeoServices. Jamie Small is a mineral owner in several of the tracts in the unit.

Q. And --

A. When we get to Exhibit 4, it's a letter I sent to EnerQuest. But anyway, I contacted several of the royalty owners, mineral owners in the tract that the Lowe Partners

are involved in and discussed the issue with them.

I got this letter from Mr. Small before I left. I was expecting one from Marshall R. Young, I did not receive it in time, so I do not have that.

Q. And have you also discussed this matter with Rocket Oil and Gas Company?

A. Yes, I have, they contacted me.

Q. And do they support your proposal?

A. Yes, they do.

Q. What is Exhibit 3, Mr. Gill?

A. Exhibit 3 is just some cumulatives. Unfortunately, I didn't have time to do much of a study on this field; I'd only been made aware of the hearing a couple weeks ago. But I did just do some looking, and it appears that most of these wells in this unit were drilled 1954 or prior. There's been about eight wells or so drilled after that, from about 1997 forward.

The ones drilled 1997 forward were all essentially P2-to-P4 producers. Everything prior to that was a P1 producer. So I subtotaled the cum production for the P1 and the P2, and based on that it looks like the cum production from this unit, or this proposed unit, about 90 percent of it came from the P1 and 10 percent from the P2 through P4.

Q. Although there is some remaining primary left in

the P2 through P4, from the data you've seen?

A. Yes, there is, and a minimal amount from the P1.

Q. Okay. But there's not -- Those early wells that you said primarily from the P1 zone produced about 5 1/2 million barrels?

A. That's right.

Q. There's not 5 1/2 million barrels left in the P2 through P4 --

A. Oh, no.

Q. -- from the data you've seen, is there?

A. Oh, no. Well, according to Mr. Williamson's numbers, that's not there.

Q. About how much ultimate or remaining primary?

A. Well, he gave it 921,000 barrels. That includes whatever's remaining with the P1, which is probably not too significant. I think previously -- what they presented last year, that number was something less. That was about 700,000, I think, last time.

Q. Okay, and you're not quibbling with the numbers, it's just that --

A. That's right.

Q. -- the remaining primary in the P2 through P4 does not compare with the P1 --

A. That's correct.

Q. -- production?

A. That's correct.

Q. And you have in front of you -- They do use P1 production in their economics and other projections, do they not?

A. It certainly shows up in their historic gross numbers and their cumulative numbers, yes.

Q. And in your opinion, should all production from wells in the proposed unit area be used in allocating production from the secondary project?

A. It's all in the unitized interval, so I would say yes.

Q. Okay. What is Exhibit 4, Mr. Gill?

A. Exhibit 4 is a letter I sent to EnerQuest with copies to the other mineral or override owners in Tract -- 10, I guess it is, the one we're in, the Lowe State -- after I received their letter asking to ratify the agreement, basically telling them my problems I had with their letter and that we would not ratify that agreement.

Q. Okay. Did you receive a response to that?

A. Not directly. I did talk to their engineer a couple times subsequent to that, but I initiated those calls.

Q. One final question. You were here during Mr. Williamson's testimony, were you not?

A. Yes.

Q. And you heard him say he's using a -- what, about a 5-to-1 ratio, secondary to primary?

A. Right.

Q. In your opinion, is that high, low, average?

A. Well, start off based on my calculations, based on Exhibit 2, this unit has made 406,000 barrels. I think that's through November. Yeah, through last November.

And saying it's going to make another 921,000, based on his numbers, gives it an ultimate primary, less a little P1, of about 1.3 million barrels. And based on his estimated waterflood recovery, secondary recovery, 9.6, it comes to more about a 7-to-1, secondary-to-primary, and in my experience that seems awful high.

Q. Are they generally more like 1 or -- 1-to-1 or 1-1/2-to-1?

A. I was assuming 1-to-1, but I guess you could stretch it to 2 or something like that.

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

A. Yes.

Q. And in your opinion, is the approval of the participation formula in your Exhibit 1 in the interests of conservation and the prevention of waste?

A. I think so.

MR. BRUCE: Mr. Examiner, I'd move the admission

of Lowe Partners Exhibits 1 through 4.

EXAMINER JONES: Mr. Carr?

MR. CARR: No objection.

EXAMINER JONES: Lowe Partners Exhibits 1 through 4 are admitted to evidence.

Mr. Carr?

CROSS-EXAMINATION

BY MR. CARR:

Q. Mr. Gill, if I understand your testimony, appearing here today you're not opposing the unitization that's proposed?

A. That's correct.

Q. You're not opposing implementation of a waterflood project?

A. No, I'm not.

Q. And you don't quarrel with the waterflood proposal?

A. No, I don't.

Q. Your problem is with the allocation formula in the unit agreement --

A. That's correct.

Q. -- is that fair?

A. That's correct.

Q. You understand that the allocation formula in this agreement is the result of -- over years' negotiation

between certain interest owners in the unit area?

A. I understand that.

Q. And you understand that if it is changed as you propose, there's a very good chance the unit would not be ratified?

A. I understand that risk, yes.

Q. Now, the reason, if I'm -- and correct me if I'm wrong. Aren't you asking the Division to adopt an alternative participation formula to protect the correlative rights of the Lowe Partners and other royalty interest owners in the unit area?

A. That's correct.

Q. Now, do you understand how correlative rights is defined?

A. Correlative rights --

Q. -- is defined as the opportunity to produce your fair share of the recoverable reserves under your tract.

A. Okay.

Q. Now, if we look at, first, the Maralo tract, is it your opinion that under that tract, 8.07 percent of the remaining recoverable reserves are found there?

A. Yes.

Q. You believe that that edge tract has 8 percent of the total unit recoverable waterflood reserves?

A. That tract to date has produced over 9 percent of

the recovery to date, so yes, I believe --

Q. Now, I'm looking at -- point forward.

A. Yeah.

Q. All right. Now, let's take a look at that tract.

A. Okay.

Q. At the present time there are two wells on that tract; is that correct?

A. That's correct.

Q. You're not suggesting that there should be credit for usable wellbores in the formula?

A. No, I'm not.

Q. There's actually a wellbore in every 40-acre tract, virtually, in the unit area.

Which well is producing?

A. I believe it's the Number 2.

Q. And at what rate is the Number 2 well producing?

A. I'm not sure. If you said a barrel a day, I won't quarrel with that.

Q. Does that sound appropriate to you?

A. Yeah.

Q. And that well -- And is that the only well producing at this time on that tract?

A. As far as I know.

Q. Have you studied the logs and the data on the reservoir under that tract?

A. No, I have not.

Q. Are you prepared to make any recommendations as to whether or not Maralo or Lowe Partners think it would be appropriate to deepen the well to attempt to complete that in the P2-to-P4 interval?

A. No, I'm not.

Q. So we're looking at a tract that has a barrel a day?

A. Yes.

Q. The tract is clearly at its economic limit?

A. Yes.

Q. If we look at the production history from the tract, would you agree with me that the bulk of the production, virtually, almost all of the production is out of the P1 zone?

A. Yes.

Q. When we look at the formula that you're proposing and we look at the Phase I participation formula, that is the formula that is being recommended as a one-phase formula for the life of the unit; do you understand that?

A. Yes.

Q. You understand that in looking at this formula, the last 12 months' production number that is being used would include P1 as well as P2-through-P4 --

A. Yes.

Q. -- production?
A. Yes.
Q. If you go to the participation formula that you're recommending, you go to change that 97.5-percent estimate to ultimate recovery?
A. Yes.
Q. That would include all past production and all future production from the P1 as well as the P2?
A. Yes.
Q. Now, if you -- How much has been produced from this lease out of the P1 interval? Do you know today?
A. I think it's about 530,000 barrels.
Q. And then what is left?
A. Probably nothing.
Q. So you have 535,000 barrels that have been produced, and the royalty owners have been paid for that?
A. Yes.
Q. And there's nothing left to be produced out of that zone?
A. Not primary.
Q. And then we go into the secondary phase.
A. Yes.
Q. And you understand that in the secondary phase we're going to be waterflooding the P2 through the P4?
A. The P1 is unitized.

Q. But I asked you what -- Do you know interval is going to be the --

A. I know, that's --

Q. -- source for the water?

A. -- what I've been told in this hearing.

Q. And as such, do you think that by rolling in and inflating the 97.5 percent with the past primary, in fact, is fair, reasonable and equitable to all interest owners in the unit?

A. Yes.

Q. Now, when we're looking at correlative rights, we're trying to allocate production so that everyone gets the recoverable reserves under their tract?

A. Right.

Q. Let's take a look at what was marked as EnerQuest Exhibit Number 11. Do you have that?

A. Yes, I do.

Q. That's the isopach map?

A. Yes.

Q. When we look at the isopach map, would you agree with me that the thicker portions of the reservoir should contain more recoverable reserves than the thinner portions of that reservoir? Would you agree with that?

A. Generally, without looking at the logs and porosity issues, yeah.

Q. Okay. Well, let's take a look at the Laney Reese lease, which is in the center of this area --

A. Okay.

Q. -- of the isopach. Would you agree with me that acre for acre you ought to have more recoverable reserves under that thicker section of the reservoir than you would under the --

A. Yes.

Q. -- Lowe tract?

A. Yes.

Q. And if we take a look at your proposed formula in Phase II and we look at the Laney Reese lease, under the Phase I factor it has a participation factor of 36.9 percent. Do you see that?

A. Yes.

Q. And then when we go into the second phase and it drops down to 5.6 percent --

A. Yes.

Q. -- and that's what you think it should receive under Phase II?

A. Yes.

Q. And you think that's fair, reasonable and equitable?

A. Absolutely.

Q. If we compare that to your tract, Tract 10 --

A. Uh-huh.

Q. -- under Phase I you get .4 of a percent --

A. Right.

Q. -- and then under Phase II that goes up to 8.07 percent?

A. That's correct.

Q. So in Phase II you believe the edge tract, the Lowe State lease, should in fact be given 3 percent -- 2-plus percent more than the tracts in the center of the unit? Is that what you're showing here?

A. There's different acreage that's involved.

Q. Well, but I mean the participation formulas, are you saying that that's a fair, reasonable and equitable allocation of the reserves between the heart of the unit and your edge tract with a well on just one barrel a day?

A. Yes, yes, I believe so.

Q. Okay. The same would apply to the Laney A lease, you drop from 19 to 3.7 percent when you go to phase 2; isn't that right?

A. That's right.

Q. And again, that means that that lease in the center of the unit would, in fact, be receiving about, oh, 5 percent less than what you think would be appropriately a tract participation factor for your acreage?

A. That's correct.

Q. And that lease actually contains a third more acreage; isn't that fair to say?

A. Okay.

Q. So basically, if we look at what you're doing, you're trying to alter the participation formula so, in fact, what we do is, we throw in the past primary back to 1953?

A. That's right.

Q. And do you believe that is a fair way to reflect what is the recoverable reserves under these tracts today, looking forward?

A. Yes, I believe primary is a good example of what the secondary recovery is going to be.

Q. You look at the wells on this tract, and do you think there is any substantial waterflood potential on the Tract 10, your lease?

A. In the unitized interval, yes.

Q. And you think that, in fact, you're entitled to 8 percent of the total waterflood project because of that in Phase II?

A. I think we're entitled to 8 percent of the secondary oil, yes.

Q. Yes have a 4.25-percent overriding royalty interest in this tract; is that correct?

A. That's correct.

Q. And that is a tract that produces one barrel a day --

A. Uh-huh.

Q. And if you look at this tract, can you tell me, based on any current oil price, how close to its economic is this tract?

A. I assume it's below its economic limit.

Q. And if it is below its economic limit, isn't it subject to just cancellation or termination by the State of New Mexico?

A. Yes.

Q. And if that happens, would you have anything?

A. No.

Q. And without unitization, do you know of any way to save that lease?

A. No.

Q. Mr. Williamson estimated that you would have an ultimate share from this property, converted to your 4.25-percent royalty interest, of approximately $14,000. Did you hear him -- or maybe it was $12,000.

A. Yeah, something like that.

Q. Have you estimated what that would be? Does that seem like an accurate number under the proposed participation formula?

A. Yeah, I think so.

Q. And would you agree that without unitization and implementation of waterflood efforts you'd probably have a several-hundred-dollar interest remaining in that property?

A. Yes.

Q. That's about a 30- or 40-fold increase in your share?

A. Yes.

Q. And you still think that's unreasonable?

A. Yes.

Q. As a royalty interest owner, you're not in a position where you bear any of the risk of the project or any of the cost of the project either, are you?

A. No.

Q. And what you have been doing is contacting other royalty owners the last few days, trying to get them to also write the Division and complain about what is the negotiated participation formula in this tract; is that right?

A. Not exactly. I contacted them with my concerns, I didn't ask them to do anything.

Q. You wrote a number of -- several other interest owners --

A. Yes, I sent them a copy of my letter, yes.

Q. And -- I'm looking for a copy of your letter here, Mr. Gill. You copied that letter to Marshall R.

Young Oil Company, did you not?

A. Yes, I did.

Q. Did they advise you that they've already ratified this unit agreement?

A. I did not talk to them.

MR. CARR: That's all I have, thank you.

MR. BRUCE: I have one follow-up question.

REDIRECT EXAMINATION

BY MR. BRUCE:

Q. Mr. Gill, although the Tract 10 will get something under this proposed unitization, it will be basically zero to Lowe Partners over the next 10 years anyway, will it not, under their proposal? A few dollars?

A. Yeah, a few dollars.

Q. Not what you think is adequate?

A. Under my participation factor, I think that -- I ran some rough numbers. It would be worth more like $500,000, instead of $12,000.

MR. BRUCE: Thank you, that's all I have.

EXAMINATION

BY EXAMINER JONES:

Q. Mr. Gill, I was going to ask you about this ultimate recovery, whether it included both primary and secondary, but you are including primary and secondary in that?

A. In which one?

Q. In this Phase II, your ultimate recovery?

A. No, that is -- the 6.7 million barrels is primary. That's primary today --

Q. Okay.

A. -- plus what they a year ago had estimated remaining primary was going to be. I used the numbers that they presented in the hearing a year ago to come up with that.

Q. Okay, under -- It says "Phase I Participation formula" and it says "Phase II Participation formula" --

A. Yes.

Q. -- right below that it says 97.5 percent estimated ultimate recovery. That is secondary and primary together?

A. Yes, that is.

Q. Okay, you didn't look at this --

A. Wait a minute. No, no, that's primary.

Q. That's just primary?

A. That's just primary.

Q. You're an engineer. Can you talk about this edge water drive out here and how it's affected the lease that you --

A. I haven't done any in-depth study. Like I say, I've only had a couple weeks to look at it. But I'm not

aware that there was an edge water drive in this thing. I'm not -- I don't know every San Andres unit out here, but I didn't know San Andres had an edge water drive in them. So I went by the assumption this one did not.

And I have seen some comments from some other parties that were involved with this that claimed it was depletion drive, the P1.

Q. So when you came up with this participation formula, you were not assuming -- you didn't assume that the P1 was more recovery in that zone than the other zones?

A. Oh, I assumed it had more recovery, but I assumed it was because -- as you can see from the log, it's a lot better interval. You know, with the main interval through the life of this field. You know, the system they have -- the participation factor they have set up is basically the newest wells win. Any well drilled prior to 1997 is going to lose out in the participation factor.

Q. What about the net-pay consideration out here? Is that --

A. They didn't address that, so I felt no need to address it either. Again, at least in the P1 it's quite a -- certainly depleted reservoir. So I assumed that primary recovery would tell you your reservoir parameters, which was the best reservoir and which wasn't.

Q. So under the current formula that they're

proposing now they didn't address it, but last year did they address it?

A. No, I don't believe so. If I remember right, no, they had acreage, usable wellbores, last twelve months' production and estimated ultimate recovery, were the factors they used.

Q. In your opinion -- You say, though, that you haven't studied this and you're not real familiar with San Andres reservoirs?

A. No, I'm not going to say I'm not familiar with all of them. I'm familiar with San Andres in the west Texas/New Mexico, yes --

Q. Do you --

A. -- but I can't say -- I don't know. There may be an example there is edge water drive, but I'm not aware of one.

Q. What about future CO_2 recovery from the entire unitized interval?

A. I think that's a very valid assumption. I think it probably should be done, based on what's going on in the analog units.

EXAMINER JONES: Mr. Brooks?

EXAMINATION

BY MR. BROOKS:

Q. I'm sure you covered this, but I kind of missed

it somehow. What is your -- what is this -- your tract allocation of the secondary production? What formula is that based on?

A. On the Phase II?

Q. Yeah.

A. It's 97.5 percent of the estimated primary recovery -- I guess I said ultimate; it should be primary -- plus 2 1/2 percent of the acreage.

Q. Well, estimated primary recovery?

A. Right.

Q. Not estimated --

A. Right, it should be primary.

Q. -- secondary recovery?

A. That's right.

Q. And how did you determine the estimated primary recovery to allocate?

A. I used the numbers that EnerQuest presented to the Commission last year.

Q. Okay, for the allocation among the tracts?

A. For the estimated production.

Q. For the total production --

A. Right, per tract.

Q. Now, how did you -- Oh, per tract?

A. Yeah, they had it per tract.

MR. BROOKS: Okay, thank you. Nothing further.

FURTHER EXAMINATION

BY EXAMINER JONES:

Q. One more question, Mr. Gill.

A. Okay.

Q. In your engineering estimate, is it better to start a secondary recovery flood earlier in the life of a reservoir or later in the life of a reservoir?

A. In my opinion it's probably better to do it earlier, but it hardly ever gets done.

Q. As a royalty interest owner, if you have that -- You said in your opinion it's better to have it earlier. And EnerQuest has been operating the wells; is that right?

A. Yes.

Q. So in your opinion they should have started this a long time ago?

A. I guess they've been trying for a year or so, so I guess they've been trying.

Q. And a majority of the wells --

A. And they weren't operators originally. I don't remember who was, but they were not operators originally.

Q. Okay. The majority of the wells were drilled -- it looks like --

A. 1953 to 1954 time frame.

Q. And other operators that put in waterfloods in the Lawson field and the Vacuum field and the Hobbs field

and this one --

A. In the 1960s, yes.

Q. -- until now we're so far below the bubble point that we're going to have some lost recovery and a lot of swept gas initially?

A. Yes.

Q. So in the interest of expediting this and getting this going, you still do not agree with their participation formula? You'd still rather have more negotiation?

A. Yes.

EXAMINER JONES: Okay, Mr. Carr?

RECROSS-EXAMINATION

BY MR. CARR:

Q. Mr. Gill, you understand that EnerQuest first acquired interests in this area in 1996 --

A. Okay.

Q. -- do you not?

A. No, I didn't know that.

Q. Do you know that they've been continuing to acquire interest from 1996 through 2002?

A. I've been aware of that, yes.

MR. CARR: That's all.

EXAMINER JONES: Mr. Bruce?

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

EXAMINER JONES: Thanks a lot, Mr. Gill.

MR. CARR: Statement, brief?

MR. BRUCE: I just have a short closing statement.

EXAMINER JONES: Okay, go ahead.

MR. BRUCE: Mr. Examiner, under the Statutory Unitization Act you're supposed to make a determination whether the participation formula in the unit agreement allocates the produced and saved hydrocarbons to the tracts in the unit area on a fair, reasonable and equitable basis. We don't believe that EnerQuest's participation formula does so. I would note that they use P1 production when it's convenient and ignore it when it's convenient. We believe that Mr. Gill is right that the primary production is a good indicator of what secondary will be.

If you look at the map and their past and present unit agreements, I think you see why they are proposing what they are proposing. If you look at their unit agreement from a year ago, they allocated Tracts 5 through 8, they combined 47 percent, approximately, of unit production.

Now, under their Exhibit 3, they allocate those same tracts 77 percent of unit production. The reason is that they've acquired additional working interests in Tracts 7 through 8, and they've apparently either purchased interests or have changed the unit formula to obtain

royalty interest ratification in Tracts 5 and 6. We don't think that's the proper reason.

If you'll look at those same exhibits, Exhibit C to the unit agreement, you see that Lowe Partners tract went down from almost 5.9 percent, down to .3 percent in participation. That's why they're here today. They're entitled to protect their rights.

We think you should look at this and adopt Lowe Partners' participation formula. Thank you.

EXAMINER JONES: Mr. Carr?

MR. CARR: Mr. Examiner, I agree with Mr. Bruce that your job here today is to determine as to the two participation formulas if, in fact, they're fair, reasonable and equitable.

We were here a year ago with an alternative formula; we were sent back to work with the other interest owners in the unit.

And what we have before you here today is a formula that has been developed, admittedly, very late in the life of the field, but it is a formula which we believe a very vast majority of all interest owners will ratify and will support.

We have been in the are since 1996, and for six years we've been trying to put together a unit in this particular area. And we've been continuing to do just what

Mr. Bruce said. We've acquired interest, we've negotiated and we've been working on this for a very extended period of time. And what we have presented to you today is a result of that effort.

We're getting to a point where leases are on the brink of expiration, and if we can't get this going soon the question has really become whether or not this will ever be put together at all.

There are two standards that apply and that have to govern your actions. And one is, does your approval protect the correlative rights of the interest owner in the pool? And is whatever formula you accept fair, reasonable and equitable?

While the Lowe Partners want to stand back and cast stones at us, I would suggest to you that before you depart from the formula that we are proposing, you must truly study theirs and then based on the standards which govern your actions, determine if it, in fact, is fair, reasonable and equitable, or more so than what is being proposed. And I think when you do, you'll find it's absolutely an impossible thing for you to -- conclusion for you reach.

And the reason it isn't fair and reasonable and equitable is because, if you adopt this formula you'll be taking an action which flies in the face of correlative

rights as it's defined in the Oil and Gas Act.

Correlative rights are defined as the opportunity to produce your fair share of the reserves, recoverable reserves, under your tract. Correlative rights is the only thing you wake up in a new world in, every day. It's an opportunity, and it's what's under your tract today and how do you get that?

Take a look at their formula, take a look at the Laney A lease, compare it to theirs, look at the isopach map. They, under their Phase II participation formula, give the 120 acres in the Laney A lease 3.7 percent of participation from the unit, while they go down to their 80-acre edge tract, only two-thirds the size, and they come in and give that 8.7 percent.

How do they get there? Well, they go back and they want to inflate the Phase II figure by crediting over 50 years of P1 production, production out of the zone, that isn't even the primary subject of the waterflood effort. If you compare their Exhibit 1 and our Exhibit 11, you cannot reach the conclusion that what they're proposing is anything more than an attempt to inflate their lease at the expense of everyone else.

And it's being driven by a royalty interest owner, someone who has no responsibility in terms of the cost or responsibility for developing the project and

making it go.

But they object. They have a new proposal. They have a new proposal that benefits an edge tract, which we submit to you flies in the face of the correlative rights of the interest owners, which simply is nothing more than an attempt to get them, really, something for nothing. They have a very marginal waterflood potential under their acreage, and that they believe in Phase II they should get 8 percent of the waterflood reserves.

We come forward with you with what we believe is a unit proposal that, if you approve it, will be ratified, that it will result in 8.8 million barrels of additional recovery, that it will be good for every single interest owner in the unit, working interest and royalty interest, including Rocket, including the Lowe Partners and anyone else they can go stir up.

But the truth of the matter is, if you don't go with this, we might as well forget this project. They can get nothing, and we'll ride out the remaining primary as shown in our Exhibit 14.

We think the only thing you can do if you're to meet your statutory challenge, protect correlative rights and approve a fair, reasonable and equitable formula, is to approve the EnerQuest proposal set before you here today.

EXAMINER JONES: Mr. Bruce?

MR. BRUCE: Under Carr's rules of order, I can't respond --

MR. CARR: That is correct.

MR. BRUCE: -- but I'll use that against him in the next hearing.

EXAMINER JONES: With that, we'll take Case 13,041 and Cases 13,042 under advisement.

(Thereupon, these proceedings were concluded at 3:35 p.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. _____, heard by me on _____ 19____.

_____, Examiner
Oil Conservation Division

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL April 6th, 2003.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 16th, 2006