NEW MEXICO OIL CONSERVATION DIVISION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date MAY 21, 2001 Time 9:00 A.M.

NAME	REPRESENTING	LOCATION
SCOTT HALL	RAPTOR NATURAL	SF
KARL M. LOOFF	" "	Loveland, TX
John F. Schell, Jr	" "	Katy, TX
JOHN A. WELLS	" "	Hou, TX
Darren Groce	" "	Katy, TX
William F. Carr	Holland + Hart LLP	Santa Fe

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:	)	
APPLICATION OF RAPTOR NATURAL PIPELINE, LLC, f/k/a LG&E ENERGY CORPORATION, FOR SPECIAL RULES FOR THE GRAMA RIDGE MORROW GAS STORAGE UNIT, LEA COUNTY, NEW MEXICO	)	CASE NOS. 12,588
APPLICATION OF LG&E NATURAL PIPELINE, LLC, FOR SPECIAL RULES FOR THE GRAMA RIDGE MORROW GAS STORAGE UNIT, LEA COUNTY, NEW MEXICO	)	and 12,441
	)	(Consolidated)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

(Special Hearing Date)

May 21st, 2001

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Monday, May 21st, 2001, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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Examiner Hearing
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A P P E A R A N C E S

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By: J. SCOTT HALL

FOR YATES PETROLEUM CORPORATION; NEARBURG EXPLORATION COMPANY, LLC; C.W. TRAINER; BTA OIL PRODUCERS; CONCHO RESOURCES, INC.,; and EOG RESOURCES, INC.:

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* * *

WHEREUPON, the following proceedings were had at 9:00 a.m.:

EXAMINER STOGNER: This hearing will come to order for Docket Number 19-01. Please note today's date, Monday, May 21, 2001. Today's a special hearing docket today, in which we will consider two matters.

At this time I will call Case Number 12,588, which is the Application of Raptor Natural Gas Pipeline, LLC, that's LG&E Energy Corporation, for special rules for the Grama Ridge Morrow Gas Storage Unit in Lea County, New Mexico.

At this time I'll call for appearances.

MR. HALL: Mr. Examiner, my name is Scott Hall with the Miller Stratvert Torgerson law firm of Santa Fe. I'm representing Raptor Natural Pipeline, LLC. I had originally entered my appearances in these proceedings for LG&E Natural Pipeline, LLC, which by virtue of its acquisition by Conoco entity no longer exists.

I do have three witnesses this morning.

EXAMINER STOGNER: Okay, are there any other appearances?

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe office of the law firm Holland and Hart, L.L.P. I'd like to enter my appearance for a number of companies today, and I'd like to, as I do

this, state that when this matter originally came before the Division approximately, I guess, a year ago, on a proposal from LG&E. There was substantial concern by a number of other operators in the area.

The proposal before you today -- and we understand it's going to be presented today by Raptor -- we believe in a large measure addresses those concerns. And so by appearing for all these people I don't want to give the wrong signal. We're here because we have been involved and are interested.

And I would like to enter appearances for Yates Petroleum Corporation; Nearburg Exploration Company, LLC; C.W. Trainer; BTA Oil Producers; Concho Resources, Inc.,; and EOG Resources, Inc.

I do not have a witness. I may have a couple of questions, perhaps a very brief statement, but we're not here taking a position in opposition to the Application of Raptor.

EXAMINER STOGNER: Thank you. Any other appearances?

Now, how many witness do you have, Mr. Hall?

MR. HALL: Three.

EXAMINER STOGNER: You have three witnesses. Before we do, there is a Case Number 12,441, that's LG&E Natural Pipeline, LLC, for special rules. I guess for the

record I need to call this matter and issue probably one order in this matter, consolidate the two cases. Is that in order today, Mr. Hall?

MR. HALL: I think that would be fine. And I've prepared a draft order showing both case numbers, so that will work.

EXAMINER STOGNER: All right. So let the record show that both cases, 12,441 and 12,588, are consolidated for purposes of testimony.

How many witnesses do you have?

MR. HALL: Three.

EXAMINER STOGNER: Will all witnesses please stand to be sworn?

(Thereupon, the witnesses were sworn.)

EXAMINER STOGNER: Before we get started today, the gentleman to my left, Mr. Richard Ezeanyim, is the new Chief Engineer here at the Oil Conservation Division. Welcome.

MR. EZEANYIM: Thanks.

EXAMINER STOGNER: He'll be sitting in today, observing.

Okay, is it necessary for opening statements at this time?

MR. HALL: I'd like to make some preliminary comments, Mr. Examiner. I think it would be helpful to

place this case into context.

I would also like to say that we're most appreciative for this special hearing date this morning, and we also appreciate the patience of the Division. This case has literally been on the docket for almost a year now, been continued a number of times.

We'd also like to express appreciation to the other parties who have participated in formulating these rules represented by Mr. Carr, as well as to the State Land Office.

Mr. Examiner, this facility, as you will find through the course of testimony, is quite a unique facility. I have been involved with the project for well over a year, having initially entered an appearance for LG&E, getting the property ready for acquisition. It was subsequently acquired by Raptor Natural Pipeline, LLC, which is a Conoco entity.

During the course of my involvement with the project, the need to protect the integrity of the unit and unit operations became clear. And as I said, it is a unique property. What makes it unique, Mr. Examiner, is that the property began its life as a traditional primary production unit, and it was later phased into an injection, storage and withdrawal facility. At its start it consisted of two sections of primarily State of New Mexico acreage

and 40 acres of fee acreage and was expanded once to include two additional sections of federal lands.

What's unique about this property is that during this transition from a production facility to a storage facility, the legal and regulatory aspects of the facility changed. Once operations phased from production to storage, the customary concept of oil and gas leasing no longer squarely applied.

When you review the documents in the exhibit book, the unit agreements for the federal lands and the state lands, you'll see that this is a hybrid. Once the phased-into storage operations was complete, the traditional concepts and notions of lease dedication no longer clearly applied, and benefits were no longer allocated according to an oil and gas lease ownership basis. They instead were allocated according to a surface ownership basis.

So we went from a situation where we had royalty payments during the production phase under oil and gas leases to the payment of injection, storage and withdrawal fees that were allocated to the landowners according to their surface ownership interests.

During our analysis of the documents -- It was a difficult concept to understand, really. And what we concluded is that this is somewhere in between an oil and

gas lease entity and what is really a surface easement entity. So by operating the gas storage unit, what the operator really has is a surface easement interest through the pore volume in the rock to store gas. And it's for that reason that the surface acreage component of the agreement really prevails now.

During the course of my involvement with this property, there were two state oil and gas leases dedicated to the unit that expired. The leases had been dedicated to the unit, quite literally, for a couple of decades.

The base oil and gas leases were assigned out, the unitized formation reserved, although I think you're aware that the State Land Office itself does not recognize vertical segregation of its leases. The unit agreement itself provides that the state oil and gas leases are to be conformed with the contents of the unit agreement. Nevertheless, those leases were expired. The State Land Office issued new leases in their stead.

One of Mr. Carr's clients, Nearburg, came in, had acquired the lease through various assignments and drilled its Grama Ridge East Morrow State 34 well in the northeast quarter of Section 34. It will be shown in some of the exhibits.

With that, that created some concerns on the part of the operator at the time, LG&E, that we need to provide

some sort of regulatory mechanism to guard against the problems that the lease expiration and the drilling of that well precipitated.

All the parties, including State Land Office and the new operator, Raptor, entered into extensive negotiations with each other, and we believe that the problems with respect to the lease cancellation have been overcome, as well as we believe, based on the data that's presently available to us, the drilling of the Nearburg well within the unit boundaries.

However, as the witness testimony will demonstrate, there is still the potential for additional development in the area of the unit, including within the unit boundary, in targets above and below and perhaps even within the Morrow. And so in our view, the need for special project rules continues to apply.

With that, Mr. Examiner, I'd be pleased to start with the witnesses.

EXAMINER STOGNER: One clarification question, if you would, please. You said it started out as a primary producing and then went into the injection storage phase. Was that a -- Was there a break in between of where that production ceased, or was that well producing and then turned into an injector immediately?

MR. HALL: I don't have the full history of that.

What I can provide you, Mr. Examiner, is --

EXAMINER STOGNER: Will that be part of the testimony today? Will that be answered?

MR. HALL: I really could not derive the answer to that from the OCD records. What I do have is a collection of all of the Division's orders that address this unit. There is an order approving the initial production unit, and then two other orders in 1973 approving of the injection unit, and then injection authorization. And I'll be glad to give those to you.

EXAMINER STOGNER: Yes, why don't you go ahead and bring those forward?

MR. HALL: That will be --

EXAMINER STOGNER: -- I'm familiar with those orders, and that's the reason I asked the question right off the bat, if --

MR. HALL: I understand.

EXAMINER STOGNER: Thank you.

Will you want a copy of this back, or do you have a copy?

MR. HALL: That's yours.

EXAMINER STOGNER: This is mine, thank you, sir.

Okay, with that you may proceed. Or do you have anything, Mr. Carr, to add at this time?

MR. CARR: No, I do not. Thank you, Mr. Stogner.

MR. HALL: At this time, Mr. Examiner, we'd call John Schell to the witness stand.

JOHN F. SCHELL, JR.,

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

DIRECT EXAMINATION

BY MR. HALL:

Q. For the record, please state your name.

A. John F. Schell, Jr.

Q. Mr. Schell, where do you live and how are you employed?

A. I live in Katy, Texas. I'm employed by Conoco, Incorporated.

Q. What do you do for Conoco?

A. Currently I'm the manager of growth and transition for our NG and GP Division of Conoco, Incorporated.

Q. All right. And Mr. Schell, are you familiar with the Application that's been filed in this case and the lands it applies to?

A. Yes.

Q. And are you familiar with the Grama Ridge Morrow Gas Storage Unit?

A. Yes.

Q. How did you become familiar with the unit and

when?

A. I became familiar with the unit last year when Conoco was pursuing the acquisition of the unit and other assets from LG&E.

MR. HALL: All right. Mr. Examiner, I would note that Mr. Schell is being offered as a fact witness, rather than an expert witness, so I don't tender him for qualification certification.

EXAMINER STOGNER: One quick question. What Conoco office are you affiliated with? Is that out of the Houston office?

THE WITNESS: Yes, sir.

EXAMINER STOGNER: Okay, thank you. That's all I have.

Q. (By Mr. Hall) If you would give us a brief history of Conoco's -- Raptor's acquisition of the unit from LG&E, explain that briefly.

A. Conoco -- Or let me start from the ground up. The Grama Ridge Storage Unit is owned -- or was owned by LG&E Natural Pipeline, LLC. LG&E Natural Pipeline, LLC, was a wholly owned subsidiary of LG&E Facilities, Inc.

Effective December 1st, 2000, Conoco, Incorporated, acquired 100 percent of the stock ownership of LG&E Facilities, Inc.. And the way we get to Raptor is that Conoco did a name change of LG&E Facilities, Inc., and

LG&E Natural Pipeline, LLC, deleting LG&E and inserting Raptor in its place.

Q. So it was effectively a name change?

A. A name change to Raptor, yes.

Q. And so Raptor is now a unit operator?

A. Yes.

Q. If you would, briefly, Mr. Schell, explain what Raptor is seeking by this Application.

A. Well, what we're seeking here is to protect the integrity of our storage unit and the commercial viability of the facility. We're asking that if wells are either completed or drilled within the unitized formation, that we have access to data, both drilling and completion data, and also requiring that if it is penetrated within this formation, that there are certain requirements, such as casing and cementing requirements, put upon the operators that do so.

Q. All right, let's look at the exhibit notebook, and if you would turn to Exhibit 1, is that a map showing the current unit project area?

A. Yes, it is.

Q. All right. Could you provide the Hearing Examiner with a brief overview of the creation of the unit and its intended operation?

A. As you alluded to earlier, the unit was created

post the production phase of the unit itself, for storage. And Section 33, 34 and 3 are all part of the state unit agreement, with the exception of a little bit of fee-owned surface in Section 33.

Subsequent to the state unit agreement, Section 4 and 10 were added with an agreement with the federal government.

Q. All right, and if we refer to the exhibit notebook and look under Exhibit Tabs 2 and 3, are those the federal and state unit agreements?

A. Yes, they are.

Q. With 2 being the state agreement, 3 the federal?

A. Yes.

Q. All right, let's refer to Exhibit 4. Is this a draft of the special project rules that Raptor is proposing?

A. Yes, it is.

Q. If you'll look at Rule 3 there, what is the unitized formation?

A. The unitized formation extend to log depths in the Morrow formation between 12,722 feet and 13,208 feet.

Q. Okay. Was the unit always used for storage operations?

A. No.

Q. What was its prior use?

A. Prior use, as stated earlier, was a production facility.

Q. All right. Could you briefly explain the surface oil and gas interest components of the unit and their functions over time?

A. The oil and gas leases were put in place and then unitized under the unit formation for the production of oil and gas. When the state unit agreement was put in place, the surface acreage became the predominant facility of defining the unit area. Therefore we pay the State fees associated with the lease of the surface acreage, and also we pay fees associated with injecting and withdrawing gas from the facility.

Q. All right. Now, in reviewing the state unit agreement, does it reflect that the primary recoverable reserves in the property were estimated and some payment was made to the State so that they were deemed produced and paid for?

A. Yes, there's provision in the state agreement stipulating that.

Q. So -- All right. Conceptually, then, all of the recoverable reserves in the unitized formation are being -- have been produced already?

A. Produced, and royalties paid for.

Q. All right. Would you explain what had

precipitated LG&E's and now Raptor's Application in this case?

A. My understanding what precipitated LG&E's was the drilling of the Nearburg well in the northeast quarter of Section 34. And there was a question of whether or not this well was actually in communication with the storage unit interval. And with that, brought about concerns as to how do we protect, or how would they protect the unit itself, the storage unit facility?

Q. All right. How are the federal leases affected by any potential expiration? Is there some provision in the federal unit agreement that addresses expiration and reissuance of federal leases?

A. Yes, the federal leases are subject to the unit agreement, the federal unit agreement --

Q. All right.

A. -- as they issue oil and gas leases.

Q. And does that federal unit agreement provide that any subsequently issued leases will contain a stipulation that they are subject to the gas storage unit?

A. Yes, my understanding is yes.

Q. All right. And is the federal unit agreement presently effective?

A. Yes.

MR. HALL: And Mr. Examiner, I would point out

again another aspect of the unique nature of this unit is that you have two adjacent units, federal and state, governed by two separate agreements, but they are operated as a single entity. The federal agreement is under Tab 3 and the state agreement is under Tab 2.

Q. (By Mr. Hall) Now, Mr. Schell, what's the present status of the state unit agreement?

A. It is an active agreement. There has been one amendment to the unit agreement that is effective and recognized by the State Land Office.

We are currently -- We negotiated a second amendment that is in front of the Land Commissioner for approval at this time.

Q. All right. Mr. Schell, to your knowledge do instruments of record in the county and at the State Land Office provide notice of the existence of the Grama Ridge Gas Storage Unit?

A. Yes, they do.

Q. Let's refer to Exhibit 5 briefly. Could you identify that? Is Exhibit 5 a copy of an excerpt from the State Land Office tract book for the lands that are the subject of this Application?

A. Yes.

Q. And if you look at the upper right-hand corner, is there a title block notation of the Grama Ridge Morrow

Unit agreement?

A. Yes.

Q. Now, does Raptor propose making the special project rules applicable to the unit area as described in the unit agreements?

A. Yes, they do.

Q. Mr. Schell, will granting of this Application help to ensure that Raptor's rights in the unit in storage gas are protected?

A. Yes.

Q. And will granting of the Application also help to provide that further drilling in the area will be properly coordinated with unit operations?

A. Yes.

Q. Now, does Raptor seek to prevent further drilling through the Morrow in the area?

A. No, that's not our intention.

Q. All right. Now, were Exhibits 1 through 5 prepared by you or assembled at your direction?

A. Yes, they were.

Q. And did you participate in the redrafting of the special project rules, Exhibit 4?

A. Yes, I did.

MR. HALL: Mr. Examiner, that concludes my direct of this witness. We'd move the admission of Exhibits 1

through 5.

EXAMINER STOGNER: Exhibits 1 through 5 will be admitted into evidence.

Mr. Carr, do you have any questions?

MR. CARR: Yes.

EXAMINATION

BY MR. CARR:

Q. Mr. Schell, are you the appropriate witness to ask questions of concerning these particular rules, or will someone else be testifying?

A. The technical aspects, there will be someone else testifying.

Q. I'm going to ask you a question, and if I'm asking the wrong person -- As I read the rules, in certain circumstances if a well is drilled there's going to be a requirement that certain information be provided to Raptor on the well. My question is, if an operator files that information with Raptor, would Raptor have any objection to keeping that information confidential unless it is required to be made public by other rules or procedures of the Oil Conservation Division?

A. No, we would not have any reason to dispute that.

Q. When you talk about the interval to which these rules apply, we have, it appears to me, two different definitions, one in the state unit which is tied to a

portion of the Morrow, and then the federal unit that includes the entire Morrow interval. Is that a correct understanding of the rules? The wrong person?

A. I'm probably the wrong person to get in that detailed.

Q. So I'll follow that with someone else.

A. I will say, Mr. Carr, it's our intention to apply these rules to the unit agreement as it's defined in the unit agreement.

Q. And when we talk about -- When we define the Morrow formation in one portion of the rules and then we talk about data being supplied on the entire Morrow formation in another -- I'm just trying to find out what is the interval to which you're trying to apply the rules; that's my whole question. And you may not be the right witness.

A. Right.

MR. CARR: I'll follow that with someone else. Thank you very much.

THE WITNESS: Okay.

EXAMINATION

BY EXAMINER STOGNER:

Q. Mr. Schell, in looking at Exhibit Number 5 --

A. Yes, sir.

Q. -- this is for one 640-acre lease, being Section

34. Now, Section 3, was that a separate state lease very similar to this one?

A. Section 3 --

Q. Yes.

A. -- was -- I'll refer to my counsel. That may have been an amended edition. Is that right, Mr. Hall --

MR. HALL: Let me see if --

THE WITNESS: -- to the original unit --

MR. HALL: -- I can give you that information. The unit as originally approved consisted of both Section 34 and Section 3, Mr. Stogner.

EXAMINER STOGNER: Okay. And what I was getting at, looking at Exhibit Number 5, I only have one page and that's for just, I guess, a representation that Section 34 had the stipulation about the Grama Ridge Morrow Unit agreement being in effect. Did Section 3 also have that?

MR. HALL: I believe it did, and if you like I could follow up with an excerpt from that --

EXAMINER STOGNER: Let's do, I think that would be a good idea to --

THE WITNESS: I'll do that.

EXAMINER STOGNER: -- to make an amendment to Exhibit Number 5 and insert this -- make that a part of this exhibit for clarification.

Q. (By Examiner Stogner) Okay, let's see. Who's

the royalty interest owner underneath that fee tract in Section 33?

A. We have exhibits of that.

Q. Okay, that will come later?

MR. HALL: We hadn't planned on introducing this, but we can if you like.

EXAMINER STOGNER: I think it would be a good idea if we're considering making special pool rules or special -- let me rephrase that -- special operating rules in and around this area. I want to make sure that everybody's identified. Of course, we know who the federal government is, we know who the State of New Mexico is, but I'd like to at least have it on the record, of the fee interest owners.

Now, did that fee tract ever join any -- or ratify a unit? Because the original unit, I believe, only covered two sections, Sections 3 and 34; is that correct?

MR. HALL: Yes, that's right.

EXAMINER STOGNER: And then when it was expanded into Section 33, did the fee owner ratify the unit?

MR. HALL: I am not sure that they did ratify the initial unit, and I'll simply just have to follow up.

Q. (By Examiner Stogner) Okay, do you know if -- Now, you made a statement that all the royalties had been paid out, gas was produced and royalties paid. Are you

including the fee royalty in this instance, in that statement?

A. Yes, sir.

Q. Okay.

A. Pursuant to the unit agreement, that's stipulated in the unit agreement.

Q. And they are now a part of -- did we call that a -- I'm trying to get away from using oil and gas terms -- the storage unit portion of it, they partake in the void space or the surface allocation --

A. Yes, sir --

Q. -- storage --

A. -- they are paid annual surface lease payments and injection and withdrawal fee payments.

EXAMINER STOGNER: I'd like them identified, since we did --

MR. HALL: I'm sorry, Mr. Stogner.

EXAMINER STOGNER: I'd like to have them identified, because I think these questions that he just answered are important, and if we can just identify them. And I'm assuming that they were notified of today's hearing.

MR. HALL: Mr. Examiner, let me discuss that with you. When we originally filed the Application I was uncertain what notice provisions should apply, and in

consultations with Mr. Catanach and later with Ms. Hebert, it was agreed that we should notify all operators affected in the unit area.

We also notified all the operators in the bounding 320s, because as originally advertised there was a buffer-zone concept -- since been eliminated -- that would have affected them. So that's what we did.

EXAMINER STOGNER: I can understand that reason, because this is more of an operational --

MR. HALL: Yes, sir.

EXAMINER STOGNER: -- stipulation.

MR. HALL: We did notify BLM and the State Land Office, but we did not notify these particular fee owners, I don't believe.

EXAMINER STOGNER: I can agree, or I can see where Ms. Hebert was coming from, and I'll take it at that.

I want to clarify. On the unit, the state unit agreement portion of it, there was some -- you had directed a question to him about they don't recognize this unit in existence for leasing purposes of minerals; is that correct? Is that what you were --

MR. HALL: You know, I think I can elaborate on that. I think what I said is that the State does not recognize vertical assignments of only a portion of its oil and gas leases, for record title purposes at the State Land

Office, anyway. Everybody does those in the county. So you're on notice when an assignment is made of a state lease and an interval is reserved, that usually shows up in the county. But the State Land Office will not approve assignments with exceptions and reservations like that.

Does that answer your question?

EXAMINER STOGNER: I believe it does. And the federal unit agreement --

MR. HALL: It had a specific provision that in the event a lease terminated and a new one reissued that the new lease would be specifically subject to the unit agreement. I believe there will be a specific stipulation form attached to the actual oil and gas lease.

EXAMINER STOGNER: That will actually either separate or stipulate that vertical --

MR. HALL: Yes.

EXAMINER STOGNER: -- extension that the storage --

MR. HALL: Right.

EXAMINER STOGNER: -- area consisted of.

MR. HALL: Now, in the state unit agreement itself there is a provision, I think I mentioned, that indicates that all state oil and gas leases are to be conformed with the terms of the unit agreement. So you can see we had an issue with the State when there was an

expiration of the lease. It should not have been expired. Perhaps it should have been perpetuated.

So initially we were at odds with the State on that, and we've since reconciled that position. We don't believe it's an issue any longer.

EXAMINER STOGNER: And how are they handling it?

MR. HALL: What we did is, we entered into some extensive negotiations with the State Land Office to clarify what the interest owned is under the unit agreement and the extent of operations, what property rights are affected.

EXAMINER STOGNER: And this is a piece of property where the State owns both the surface and the minerals?

MR. HALL: There are combinations of that, and I believe we have -- Well, we didn't reflect that surface ownership entirely on the plat. But for instance, I believe the northeast quarter of Section 4 is federal minerals; but the surface, pursuant to an acreage swap with the BLM, became state surface. So that was part of our negotiations with the State; we added that surface acreage to our agreement with the State, and that had an effect on these injection, storage and withdrawal fees.

EXAMINER STOGNER: That northeast quarter of 4 --

MR. HALL: Yes.

EXAMINER STOGNER: -- 34 was federal minerals?

MR. HALL: Yes. It was the subject of a land exchange, on the surface anyway, with the State.

EXAMINER STOGNER: Okay. Now, what is Exhibit Number 5? Is this a surface lease record or a mineral lease record?

MR. HALL: It is the unit project area, as described in the federal and state unit agreements.

EXAMINER STOGNER: Okay, now I'm talking about Tab 5.

MR. HALL: Oh, I'm sorry, Tab 5 is simply a tract-book excerpt from State Land Office records.

EXAMINER STOGNER: Now, but is this concerning the surface and the minerals, or just --

MR. HALL: This is from the oil and gas tract book, I should say.

EXAMINER STOGNER: This goes all the way back to 1919, but I show it to be 640 acres mineral -- state minerals. Or am I reading it wrong?

THE WITNESS: Mr. Examiner, I'm not sure if you misheard what Mr. Hall said. We're looking at Section 4, is what he was referring to. Section 4, if you'll look at Exhibit 1, is 100-percent owned minerals by the federal government. And then in a land swap, the northeast quarter of Section 4 surface is now owned by the State.

EXAMINER STOGNER: Okay. Four, Section 4. I apologize for that. I had Section 34 and Section 4 mixed up. My apologies on that. Okay.

MR. HALL: Well, I just noticed --

Q. (By Examiner Stogner) Now, in Section 4, then, the State now owns the surface?

A. The surface of the northeast quarter.

Q. Okay. Now, how is that affected of the void space agreement for this storage area?

A. In the second amendment that we have, we're actually re-allocating the unit area and will pay the State, because we pay the State on surface acreage on an annual fee, and their percentage of the injection withdrawal fees are based on their surface ownership.

Q. Now, is the federal -- For the federal leases in this unit for minerals, have they been withdrawn for that vertical extension that includes the storage area? Has that been withdrawn from any possible leasing for minerals in that storage extension?

MR. HALL: Other than oil and gas? The federal --

EXAMINER STOGNER: Yes, other than oil -- or oil and gas.

MR. HALL: The oil and gas leases dedicated to the federal unit agreement effectively take those out of

the market.

EXAMINER STOGNER: So they have been removed, okay.

Q. (By Examiner Stogner) Is there any other ownership differences here on this map where there's a different surface and a different minerals owner, that you know of?

A. Scott, isn't there a difference on the Merchant ownership, surface acreage versus mineral?

MR. HALL: That is surface and mineral, as I recall, that Tract 6 there. That's owned by Merchant Livestock Company, and they were parties to the unit agreement.

EXAMINER STOGNER: Okay, I don't see Tract 6.

MR. HALL: Look at Exhibit 1.

THE WITNESS: Section 33.

EXAMINER STOGNER: I'm sorry, one at a time.

THE WITNESS: I'm sorry.

EXAMINER STOGNER: I'm sorry. Scott Hall, say -- Okay.

MR. HALL: It's the southwest of the northeast of 33.

EXAMINER STOGNER: Southwest northeast of 33. And that is a fee surface owner?

MR. HALL: And minerals.

EXAMINER STOGNER: Well, I'm a little confused at your map, then. If that be case, why wasn't that be shown here?

MR. HALL: You know, what I think we could do, Mr. Examiner, is that in the process of negotiating the second amendment to the unit agreement with the State of New Mexico, we developed a new Exhibit B and C to that agreement, which will reflect ownership, surface and minerals.

EXAMINER STOGNER: Okay, now, is B a map of surface and C is a map of minerals?

MR. HALL: B is oil and gas leases, C is surface.

EXAMINER STOGNER: I would definitely like a copy of that --

MR. HALL: Okay.

EXAMINER STOGNER: -- yes. And that would show the fee surface and fee minerals --

MR. HALL: We'll supplement --

EXAMINER STOGNER: -- and/or fee minerals.

MR. HALL: We will supplement the record with that.

EXAMINER STOGNER: This isn't in the potash area, is it?

MR. HALL: No, sir.

THE WITNESS: No.

MR. HALL: I hope not.

EXAMINER STOGNER: Okay, so we have a positive aspect about this. Okay. No gravel pits.

MR. HALL: It took me months to get my arms around this, Mr. Examiner.

EXAMINER STOGNER: And you understand it and you understand it. Now you're presenting it to me who hasn't seen this.

MR. HALL: In 30 minutes you will understand it.

EXAMINER STOGNER: Good. I'll tell you what, I think the two maps that you were talking about, if you can supplement Exhibit 1 with a copy of those two maps --

MR. HALL: Well, they are exhibits -- There's still work in progress, but they show by description an interest in each of the tracts.

EXAMINER STOGNER: Now, are they included in today's exhibits?

MR. HALL: No, sir.

EXAMINER STOGNER: No.

MR. HALL: I'll supplement the record with that.

EXAMINER STOGNER: If you would. Let's do that, let's supplement the record. Okay, which tab has the proposed -- Tab 4. Now, is there any kind of a notification procedure included in these rules and regs?

MR. HALL: When we had filed the amended

Application on behalf of LG&E, I believe back in August of last year, a draft of special project rules was attached to that and sent out to the parties. By that time -- Mr. Carr will correct me, but I believe he had entered an appearance for the same parties today.

EXAMINER STOGNER: Well, let me rephrase this. With an operator who's drilling through here, is there an obligation for that individual to notify the storage operator?

MR. HALL: Yes, and we have a witness upcoming who can explain the operation.

EXAMINER STOGNER: Okay, I'm getting ahead of everybody, then. Okay. With that, I don't have any other questions of this witness. Are there any other questions of this gentleman?

Mr. Schell, you may be excused.

THE WITNESS: Thank you.

MR. HALL: At this time, Mr. Examiner, I would call Karl Looff to the stand.

KARL M. LOOFF,

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

DIRECT EXAMINATION

BY MR. HALL:

Q. For the record, sir, please state your name?

A. Karl Michael Looff.

Q. And how do you spell that, for the court reporter here?

A. L-o-o-f-f.

Q. All right. And where do you live, Mr. Looff?

A. Route 1, Box 197A, Lovelady, Texas.

Q. And how are you employed?

A. I'm a geologic consultant.

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

A. No, I haven't.

Q. Have you testified in front of other regulatory agencies?

A. Yes, I've testified in the Texas Railroad Commission.

Q. All right. Would you provide this Examiner with a brief summary of your educational background and work experience?

A. I have a bachelor's and master's degree in geology from the University of Missouri, 1963 and 1968. I have worked 36 years in the oil and gas industry. I've held various positions. The more significant ones, I was chief geologist for Tenneco, I was vice president of exploration for Samson Resources, and I served as manager of exploration and offshore development for Mark Producing.

In 1987 I became a geologic consultant, and in 1989 I started doing extensive work with geologic evaluations associated with underground storage, both salt and conventional.

Q. And are you familiar with the Application that's been filed in this case?

A. Yes.

Q. And are you familiar with the lands that are the subject of that Application?

A. Yes.

Q. As well as the gas storage unit?

A. Yes.

MR. HALL: At this point, Mr. Examiner, we'd offer Mr. Looff as an expert in petroleum geology.

EXAMINER STOGNER: Any objections?

MR. CARR: No objection.

EXAMINER STOGNER: Mr. Looff, it's University of Missouri at Rolla today; what was it --

THE WITNESS: It's Columbia.

EXAMINER STOGNER: It was what, it was called -- Oh, it was Columbia?

THE WITNESS: Columbia, yes.

Q. (By Mr. Hall) Mr. Looff, have you made a study of the unit and the surrounding area in conjunction with the hearing in this case?

A. I have.

Q. Let's refer to the exhibit notebook, if you would, and would you provide the Hearing Examiner with a brief geological overview of the Morrow formation in the area?

A. Okay, can we turn to Item 6? Item 6 is a regional paleogeographic map that was produced by Bruno Hanson. It shows what is normally considered the depositional environment for the Morrow. The arrow is pointing to the area of Lea County in which the storage area is.

The type of deposition becomes important in this issue. We are looking at a fluvial deltaic environment, grading into a marginal marine. This environment is subject to extreme lateral changes of the facies. In other words, sandbodies can come and go very quickly on you.

Q. All right, let's refer to the remaining exhibits. Exhibit 6, what is that intended to reflect?

A. Exhibit 6?

Q. I'm sorry, Exhibit 7.

A. 7, excuse me. Exhibit 7 is a type log that I've used for correlation into the storage unit. It shows the top of the Morrow clastics, correlations of Morrow "A", "B", "C" and "D", which are local correlations which have been used in a previous geologic study of this area. This

well is not located in the unit area; it is located in Section 9, in the northeast quarter.

The type log shows that between the Morrow clastics and Morrow "C" you have a lot of very thinly bedded sands coming and going. You have the Morrow "C" and "D" unit, which are channel complexes, which are the primary storage units.

Q. All right. Let me ask you at this point, Mr. Looff, if you would refer back to Exhibit 2, which is the unit agreement itself, page 3, Article 3 of that agreement, is that the definition of the unitized formation we're dealing with here today?

A. Yes, it is.

Q. What is that, for the record?

A. "That subsurface portion of the unit area commonly known as the Morrow sands which is the same zone as the top and bottom of which were encountered at log depths of 12,722 feet and 13,208 feet in the Shell Oil Company State GRA Well No. 1 as shown on the Schlumberger Sonic Log - Gamma Ray Log of said well dated July 5th, 1965, which said well is located 1980 feet from the North line and 660 feet from the west line of Section 3, Township 22, Range 34..." West [*sic*] and "...is unitized under this agreement and is hereinafter referred to as the 'unitized formation'."

Q. And that well location is reflected on some of the subsequent exhibits, is it not?

A. Yes, it is.

Q. Now, let's refer back again to the Exhibit 7, the type log, and let me ask you, is there consensus among operators in the area on the nomenclature identification for all the Morrow intervals in the area?

A. No, there is not.

Q. Okay. Let's refer to Exhibits 8 and 9, if you would explain those to the Hearing Examiner, please, sir.

A. Exhibits 8 and 9 are structure maps showing how the structure transcends the unit area. The first map is a structure of Morrow clastics, which is the top of the interval that has been unitized. This map does not attempt to address any of the smaller faults in the area. It addresses the large fault which exists to the west of the unit, the storage area. But it shows that there is basically a southward-plunging nose, structural nose, that crosses the unit area.

Exhibit 9 is a similar map done on the structure of Morrow "A", which is located about 100 feet below the upper marker. It shows the same type of pattern again, that there is a structural axis crossing the unitized -- or the unit area.

Q. Now, does 9 also show all the Morrow penetrations

in the area?

A. Yes.

Q. All right, let's refer to Exhibit 10. What does that reflect?

A. Unit [*sic*] 10 is an isopach of the thickness between these two structural datums that were presented earlier. The purpose of the isopach map is to determine whether the structure was active at the time of deposition of the Morrow clastics to Morrow "A" interval, and provides a basis, then, for further structural as to what is the potential for smaller faults to exist in the area?

Q. All right. Mr. Looff, in your opinion is the reservoir boundary for the storage project indeterminate in certain cases?

A. The reservoir boundaries for the individual storage sands is very indeterminate, based off the stratigraphy that's set up by the depositional environment. Channels can change on you very, very quickly, and they of course can be very hard to determine with subsurface control.

Q. All right. Now, will Exhibits 11 through 19 help demonstrate why that is so?

A. Exhibits 11 through 19, yes. They first address the structure in the -- showing the possibilities for additional faulting in the area.

Q. And that's Exhibit 11 you're referring to?

A. Yes. And the following exhibits, then, demonstrate the stratigraphic possibilities that can exist.

Q. So that's Exhibit 12. What does Exhibit 13 reflect?

A. 13 is a sum of the structural analysis in which the deformation of the isopach interval that we looked has been analyzed at -- it has been buried from 100 feet to its present depth of 13,000 feet, or in this case subsurface of 9200 feet. That allows you to look at changes that have taken place between these points and to infer where smaller faulting is likely.

So the structural nose that was rather simple on the first two maps that we looked at is now still present, but we imposed on it a number of small faults.

Of interest is the faulting that we see in the Section 34, near the Nearburg well. If you look back at the isopach -- and the analysis was done without the presence of the Nearburg well -- the isopach, which is Figure 10, shows that most of the values in here around the well are 90 to 100-plus feet. The Nearburg well is 62 feet, indicating the likelihood of a 30-foot fault that is passing through this interval in the Nearburg well.

Q. And does it also establish the existence of numerous other faults?

A. Oh, yes. The analysis indicated that there should have been on the order of 60 feet of deformation between the east and west side of Section 34. We have demonstrated a possibility of 30 feet in the Nearburg well, which leaves another 30 feet of faulting to be present someplace to the west.

Q. Now, what bearing does the existence of the numerous faults have on the indefinite nature of the storage reservoir?

A. Well, the faulting allows you to juxtapose sand against sand, so that in addition to the depositional imprecision with the storage sand, you also have now a fault component that will come into play also, which means the fault may not seal.

Q. All right. Let's look at Exhibit 14. You have a number of schematic exhibits. Why don't you explain each of those to the Hearing Examiner?

A. The purpose of the schematics are to diagrammatically or schematically portray the stratigraphic situations that can exist in this type of a fluvial deltaic environment in which a well away from the main storage sand could still encounter sands that are in communication.

Schematic 1 is a prograding distributary, which I believe everybody accepts as a form of deposition in this area.

Q. Is that Exhibit 14, for the record?

A. The channel is the striped area. As it progrades out, it lays down thin sands out in front of its front or prograding delta. As the channel moves over these, it can actually erode down into them and therefore be in communication with them after the channel is filed.

The vertical dashed line represents a well, theoretically, that could be drilled outside of the main channel. It encounters two thin sands that are gas-filled and are in communication with the main channel.

Q. What does Exhibit 15 show?

A. 15 is a case of a bifurcating channel. As the channels move down towards the delta, they often break up into component pieces. It shows a main channel to the right, which would be -- let's assume, is a storage area. A well drilled off to the left encounters a smaller channel. It is also gas-filled, because in an areal extent, it's still connected to the main storage reservoir.

Q. And what does Exhibit 16 reflect?

A. 16 is a crevasse splay with distributary channels and a prograding/agrading system. During floods the river quite often overextends itself, it breaches its natural levee and it creates a small -- what you might say is a delta, off on the side. While the communication between that crevasse splay, or sand deposit, and the main channel

is somewhat limited, there is reservoir communication.

And again, I'm showing the main channel, a small crevasse splay sitting some distance away. A well penetrates it, finds gas, that gas is still in communication with the storage unit.

Q. All right, let's look at Exhibit 17.

A. 17 is a case where you have basically within the same interval two channels of slightly different age. The older channel is encountered by a well drilled outside of what you believe is a storage channel, which is shown here as the younger. However, the younger channel has actually truncated and eroded down into the lower. Therefore there's a large area of communication between the two channels, even though they're slightly separated stratigraphically in a vertical sense.

Q. All right. And let's look at Exhibit 18, please, sir.

A. This is Schematic Number 5. This shows offset channels. The sand does not compact very well, and so an earlier channel can actually deflect a later channel off to the side. In this case, using Channel "B", the one to the right, as a storage reservoir, Channel "A" is actually a separate reservoir and could encounter virgin gas.

However, the depletion of Channel "A" reservoir could lower the pressure so that the thin shale separating

the two would be fractured and no longer serve as a seal, and you would end up communication between the two.

Q. All right, let's look at Exhibit 19.

A. 19 is addressing the faulting that we were looking at or talking about earlier. This is a faulted distributary in which the size or the magnitude of the faulting is less than the channel thickness. As a result, the channel is in communication with itself across the fault. A well drilled on the downthrown side would actually find a channel that was structurally lower but still in communication with the reservoir.

Q. All right, let's explain Exhibit 20 to the Hearing Examiner.

A. Okay, schematic cross-section Number 2 is the same scenario, except this time the throw of the fault is greater than the thickness of the reservoir, so a test that was drilled to the right could encounter a virgin reservoir that could be produced. Again, with the production and the pressure depletion of that reservoir, you could open up communication along the fault length between the storage reservoir and the depleted gas reservoir.

Q. All right, Mr. Looff, in your geologic opinion do Exhibits 11 through 19 demonstrate the various scenarios that could lead to communication between a new drill and a storage reservoir? And is there a reasonable possibility

that any one of these scenarios could exist?

A. Yes, there is.

Q. During your initial geologic review of the area, did you make a determination whether there are additional drilling locations available?

A. Yes, if you refer to Item 13, or Exhibit 13, based off of the structural position in which we have the structural nose coming across the unit area, structural noses are always good places to drill. It's a high point where hydrocarbons can accumulate. We are showing, or I am showing here, the possibility of the numerous small faults that could set up individual traps.

So yes, in my opinion a person could come up with reasons that they'd want to drill inside the unit.

Q. All right. Now, let's refer back to the exhibit under Tab 28. That is Order Number R-7582.

EXAMINER STOGNER: What are we referring to, Mr. Hall, again?

MR. HALL: It's under Exhibit Tab 28.

EXAMINER STOGNER: 28, thank you.

MR. HALL: And that is Order R-7582.

Q. (By Mr. Hall) And if you will refer to page 2 of that order, Finding (5), do you see the reference to the L&B Oil Company Federal Well Number 1, 660 feet from the south and 1980 feet from the east line of Section 5 in 22

South, 34 East there?

A. Yes, sir.

Q. Now, is that well reflected on one of the other exhibits?

A. They're reflected on all of the structure maps.

Q. All right. Have you reviewed that order briefly?

A. Yes.

Q. What's your understanding of the concerns of Llano, the Applicant in that case, that led to the issuance of that order?

A. The concern was that even though the well was outside of the unit as established, that the well could be in communication with the storage sands.

Q. All right. If you'll refer to Finding (6) on page 2 it says -- there is a finding that says "That the boundaries of the Grama Ridge Storage Reservoir cannot be precisely determined." Do you see that there?

A. Yes.

Q. Do you agree with that finding?

A. I agree with that finding.

Q. And does that finding still hold true today?

A. Yes.

Q. Do you have an opinion on whether or not the Nearburg State 34 well is in communication with the unit, based on data available to us today?

A. Yes.

Q. And what is that opinion?

A. Based off of the structural analysis which I made, I believe they are fault-separated, incorporating pressure data that has been supplied to me by Mr. Wells that seems to support that. The question remains is, at the depletion of that reservoir will that separation continue?

Q. All right. Now, discussing that particular fault, can you tell us the extent of discontinuity between the east-half portion and west-half portions of Sections 34, 3 and 10, on the east flank of the unit?

A. If we refer again to Exhibit 13, from a structural standpoint, part of the same structural nose, the discontinuities that we would be looking at would be caused by the faulting, which cannot be precisely located, and secondly would be the discontinuity set up by the imprecise boundaries of the channels themselves, which we cannot precisely define.

Q. All right. Now, based on currently available data, is there a reasonable possibility that the drilling and development of other Morrow locations within and adjacent to the boundaries of the unit project area might result in communication with the unitized formation?

A. Yes.

Q. And does the possibility of vertical communication exist?

A. The vertical communication, basically, we can look at two ways. The vertical communication would be, first, from the geologic standpoint which was associated with the original deposition; the second is, the vertical communication due to migrating of the gas out into another wellbore and to the surface.

Q. Yes. So the record is clear on this, with respect to the State agreement anyway, the unitized formation consists of an interval less than the full Morrow formation; is that correct?

A. That's correct.

Q. And so is it correct to say that there's a possibility of further Morrow development within the Morrow formation but outside the unitized formation?

A. Yes.

Q. And that poses the possibility of vertical communication?

A. Yes, through the wellbore.

Q. Yeah. Mr. Looff, in your opinion would the proposed special project rules protect the correlative rights of the unit participants in the project gas in the unit area?

A. Yes.

Q. Now, in your opinion, is the granting of this Application necessary for the protection of correlative rights, the prevention of waste and otherwise in the interests of conservation?

A. Yes.

Q. And have you had -- I believe you briefly mentioned you've had experience with other gas-storage facilities, correct?

A. I have.

Q. Have you had some involvement with the gas storage facility in Hutchinson, Kansas?

A. I have.

Q. And tell the Hearing Examiner what precipitated that involvement.

A. It was a widely publicized event. There was shallow storage of gas in salt caverns at depths of approximately 450 to 600 feet. A leak occurred in one of the storage wells, in a facility referred to as the Yaggy facility. They lost a large amount of gas, in the range of a hundred to a million cubic feet of gas.

Three days later, gas began to erupt under the town of Hutchinson, Kansas, coming up through old brine wellbores that had not been properly plugged. The incident resulted in a very chaotic disruption of the city for about three days. Several people were killed. This is still

under investigation from a geologic standpoint, but it is rather obvious that the gas that moved to the surface came up through improperly plugged wells.

Q. Now, if you'll look at the materials under Exhibit Tab 29, are these reproductions of articles from the *Oil and Gas Journal* on the Hutchinson Gas Storage Unit incident?

A. They are.

Q. And although the Grama Ridge Morrow Gas Storage Unit is significantly deeper than the facility in Hutchinson, Kansas, is there still a safety concern associated with this?

A. Yes, there's a safety concern, but not of the magnitude that they've experienced at Hutchinson.

Q. But there is a reasonable basis for prescribing these rules in this case for safety?

A. I believe so.

Q. All right. Now, Mr. Looff, were Exhibits 6 through 19 and 29 prepared by you or compiled at your direction?

A. They were.

MR. HALL: And that concludes my direct of this witness, Mr. Examiner. We would also move the admission of Exhibits 6 through 19 and 29 and ask that you take administrative notice of Exhibit 28, which is the prior

order.

EXAMINER STOGNER: Exhibits 6 through 19, Exhibit 29 will be admitted into evidence; Exhibit Number 28, I'll take administrative notice of Order Number R-7582.

Mr. Carr, your witness.

EXAMINATION

BY MR. CARR:

Q. Mr. Looff, in your testimony you reviewed the definition of "unitized formation" with Mr. Hall, and you reviewed what is set forth in Rule 3 of the proposed rule.

A. Yes.

Q. My question is, that definition as I read the rule, applies to state lands. It then goes on to say, "As to Federal lands, the 'Unitized Formation' consists of the Morrow Formation underlying the 'gas storage reservoir...'"

Are there different vertical intervals unitized in the state portion of the unit, as opposed to the federal portion of the unit?

A. I'll have to defer to counsel.

MR. HALL: Yes, what we have attempted to do here in the draft rules, Mr. Examiner, is remain consistent by borrowing the defined term "unitized formation" as it exists in both the state agreement and the federal agreement, and both those definitions are reflected in the Draft Rule 3, under Exhibit Tab 4.

Q. (By Mr. Carr) I'm going to ask you another question that you may want to defer to your counsel.

A. Okay.

Q. If we go to Rule 4 it says, For the purpose of the "Special Project Rules and Operating Procedures, the 'Morrow Formation' is the full extent of the vertical limits of the Morrow formation as defined by Order No. R-3006." Do you know what that order is or --

A. I'll have to defer again.

Q. All right. My question is, when you look at the Morrow formation as a geologist, does the gross interval extend above substantially and below what is unitized for the gas storage project?"

A. As I look at the Morrow, the top of the Morrow is what I refer to the Morrow clastics, which has a thick sand above it called the lower Atoka. We do not go to the base of the Morrow. We're -- What has been unitized is about 500 feet into it.

Q. Does the unitized interval -- Is it at the top of the Morrow? --

A. Yes.

Q. -- is that what you said?

When I look at the type log behind Exhibit Number 7, there are various Morrow intervals identified. It says Morrow clastics and then on that same line that goes across

the log we have in parentheses "(Morrow 'B'/Nearburg)". What does that mean?

A. The information that I have on the Nearburg well is that they refer to this same unit or datum that I'm calling Morrow clastics as their Morrow "B". This is part -- and you know, we have a Morrow "B" in the field, so there's a discontinuity in nomenclature coming across the field.

MR. CARR: That's all I have.

EXAMINER STOGNER: Thank you, Mr. Carr.

Any redirect?

MR. HALL: No, sir.

EXAMINATION

BY EXAMINER STOGNER:

Q. Mr. Looff, in -- I'm looking at Exhibit Number 4, Rule 1. It talks about "Each newly drilled or recompleted well penetrating the Morrow formation in the area of the Grama Ridge Morrow Gas..." unit area. What do we mean by "the area"? Is this within one, two miles? Is there a definition of this area?

A. I'll defer to Counsel again.

MR. HALL: Mr. Examiner, I think the next witness can address this. And I see your point there. Perhaps that's where the rule can be clarified by the deletion of those words, "the area of". I think that would clarify

that we're just talking about the unit project area as defined further on in the draft rules. That's our intent anyway.

Q. (By Examiner Stogner) Okay, so there is -- You're not proposing, Mr. Looff, although your presentation appears to be that wells drilled within the perimeter of this area could affect. In fact, that was your testimony, was it not?

A. Yes, sir.

Q. Is there a move to include these operating procedures within a boundary area of this unit?

MR. HALL: Mr. Stogner, as we had originally filed the Application, yes, we provided for a buffer zone. And as the next witness will explain, there were some objections from area operators to creating a buffer zone. So as now proposed the project rules apply only to the formal unit area.

EXAMINER STOGNER: So there was some area of disagreement, and that was one of them?

MR. HALL: That buffer-zone concept met with some objection.

Q. (By Examiner Stogner) Go back to trim tab [*sic*] 11. What are you trying to show me in this one again? I wasn't clear on the concept.

A. On the concept. Well, it may be somewhat

difficult to convey, but I will try.

The isopach that I showed you from the Morrow clastics to the Morrow "A" reflects the surface that the Morrow "A" would have after it had been deposited or buried by about 100 feet. Since that time, the Morrow "A" has now been buried to 13,000 feet.

In the process of that burial that surface has changed, it has been deformed. By comparing the relationship of the points at the isopach to the present-day structure, it shows you the direction and the magnitude of change that has taken place relative to those two points.

Now, in this case we know we have a structural nose that is plunging to the southwest. So you would anticipate the deformational vectors that we're showing here, which most of them do, would basically radiate basically out, showing that same dip.

We see two exceptions, we see vectors that show the same dip but they have very large delta numbers like 741, indicating there's a very large fault going through there. The other numbers are much smaller.

But as you can see, some of those arrows point back into that structural axis, not away from it. This is an indication that the magnitude of changes that you're looking at between those points, since the deformation was

back towards that axis, was due to faulting, not due to the fold.

So this is a means that you go in and can infer the potential fault patterns in areas where the stratigraphy does not allow exact correlation of a large interval, where if you had seismic the faulting is below the seismic resolution level. This is a technique I developed 11 years ago or better. I have presented one school of it to the AAPG and the San Antonio Geologic Society.

Q. Now, is this -- Are you trying to make a summation of changes, or the summation of a change --

A. The summation --

Q. -- those two factors, or all --

A. No, just with these, basically, factors. You're looking at the deformation of that surface with continued burial to this present-day position. It really is a working technique that leads me to the results that you see in Exhibit 13. It's simply a means of getting to Exhibit 13.

Q. Thank you for clarifying that. The only time I've seen that is on front of atlases where it's going to take me how many hours to drive from one point to another.

Behind Exhibit Number 6, what publication is this from?

A. This is from a Geologic Society of America publication. Just a second. It's titled "The Sedimentary Cover, North American Craton", Geologic Society of America, Volume D2.

Q. 1985?

A. I believe so, yes. Well, no, what I took from was 1991. It was taken from -- modified from a publication by James in 1985, which I believe is a New Mexico Geologic Survey publication.

EXAMINER STOGNER: I have been looking for a map like that, so good presentation. Thank you.

Any other redirect, cross-examination, are there other questions of Mr. Looff?

You may be excused at this time. I may recall you later, after the next witness.

MR. HALL: At this time, Mr. Examiner, we would call John wells to the stand.

JOHN A. WELLS,

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

DIRECT EXAMINATION

BY MR. HALL:

Q. For the record, sir, please state your name.

A. John Allen Wells.

Q. Mr. Well, where do you live and how are you

employed?

A. I reside at 3442 Woodbrook Lane, Sugarland, Texas, and I am a principal in the firm of Fairchild and Wells Petroleum Consultants in Houston, Texas.

Q. And what is your professional expertise?

A. Well, my professional expertise is generally in the area of petroleum reservoir engineering. My specific abilities focus more on the subsurface flow of oil and gas and water and the modeling of those types of -- the physics of that type of processes.

Q. Now, have you previously testified before the New Mexico Oil Conservation Division?

A. No, I have not.

Q. Why don't you give the Hearing Examiner a brief summary of your educational background and work experience?

A. I hold a bachelor of science degree in mathematics and chemistry and a master's degree in physics. My career started out in funded research by the Petroleum Research Foundation. I subsequently then was hired by Texaco and worked for seven years in the Bel-Air Research Facility there in Houston, Texas, in various assignments, including field engineering assignments.

I then became the engineering manager specializing in gas projects division at Scientific Software Intercomp, an international consulting firm. I

was there for seven years and then started my own company and have been providing consulting services at Fairchild and Wells for the last 15 years, and a significant part of our work is in the natural gas storage industry.

Q. All right. And you're familiar with the Application that's been filed in this case?

A. I am.

Q. And you're familiar with the Grama Ridge Morrow Gas Storage Unit?

A. Yes, I am.

MR. HALL: At this point, Mr. Examiner, we'd offer Mr. Wells as an expert petroleum engineer.

EXAMINER STOGNER: Any objection? Mr. Wells, where did you get your degrees?

THE WITNESS: Mississippi State University.

EXAMINER STOGNER: Both undergrad and grad?

THE WITNESS: The undergrad was at Delta State University, and graduate was at Mississippi State University.

EXAMINER STOGNER: Where's Delta State?

THE WITNESS: Delta State is in Mississippi, it's in Cleveland, Mississippi.

EXAMINER STOGNER: So qualified. Thank you, Mr. Wells.

Q. (By Mr. Hall) Mr. Wells, again would you explain

what Raptor is seeking by this Application and its special --

A. Well, what Raptor proposes that this is, is that this Commission promulgate certain special project rules that will govern the completion and plugging practices applied to wells to be drilled within Raptor's gas storage unit in the future, and thereby to establish a protocol such that the possibility of capture or escape of their nonindigenous high-pressure storage gas can be assured.

In addition, Raptor feels that these project rules will promote the general public safety.

Q. All right. And Mr. Wells, at this point I'd like you too to refer to Exhibit Tab 28 and Order Number 5782 [*sic*] in there. Have you reviewed that order?

A. Yes, I have.

Q. Can you express from the order what were the concerns of Llano, the applicant in that case?

A. Well, Llano's concerns were expressed in the findings of the Commission order, and they were basically threefold: one, that the L&B intended to drill a well that was a direct offset to their storage unit, to Llano's storage unit, and that this storage unit was known to be indeterminate. It's not as the -- as our geologists -- earlier geologists have all said that it's just not precisely known, the lateral extent of this Morrow

formation. So that was known.

And then the third thing was that it would likely cause disruption to the storage facility and the loss of gas or the escape of gas by this well drilling next to them.

Q. Is it safe to say that Llano was looking for a way to monitor activity on what they thought might be the storage reservoir and collect data?

A. Exactly.

Q. And what are the monitoring and data-collection operations currently in place for this --

A. Well, I have some exhibits that will -- which -- what number those are, I'm not sure.

Q. Start with Exhibit 21.

A. 21, yeah --

EXAMINER STOGNER: Which leads me up -- I don't believe that we accepted Exhibit Number 20. I think I did from 6 to 19, but at this time I'll accept Exhibit 20, which was part of Mr. Looff's presentation.

MR. HALL: Yes, so offered. Thank you, Mr. Examiner.

THE WITNESS: Exhibit 21, in fact, might be of interest to the Examiner's original question to Mr. Hall, having to do with the lag time between primary production and the start of storage.

What this exhibit shows is the chronology of the reservoir pressure that has been measured in the Morrow interval, and this particular pool was discovered in the mid-1960s and was depleted there rapidly. You can see that the pressure in the reservoir declined to less than 1000 pounds as measured in some of the wells by 1970.

And then shortly thereafter, in 1973, is when injection began. And this figure demonstrates the dynamic nature of this storage facility, how the pressure swings seasonally and annually, and we've had pressures go back up as high as 4000 pounds and as low as slightly less than 2000 pounds.

The next figure, the next exhibit, 22, demonstrates how Raptor continuously monitors the gas-accounting inventory and the measured pressures, the fall, spring, high inventory, low inventory, shut-in pressure surveys, equilibrated reservoir pressures, to generate essentially a graphical solution to the material balance equation, which provides an indication of what inventory you would expect to have stored at a given pressure.

And this relationship, as you can see, is not exact, but the trend line is used to monitor the ongoing performance, and if we see things at some point in the future that appears to get us off of this trend line, then that gives us reason to suspect we've had gas escape or

some kind of migration problems or something like that.

And Figure 23, this is just to provide the Commission with some additional detailed examples of the kinds of data that are collected at the gas storage unit.

This particular exhibit provides a snapshot between October 25th of 2000 and November 30th of 2000 on the first page. You can see that we have for the Grama Ridge Morrow Unit Well Number 1, Number 2, Number 4. These are the daily casing and tubing pressures and injection and withdrawal rates and cumulative volumes.

On the second of this exhibit is plotted the tubing pressure and the injection or withdrawal rates that are applied to this well. So you can see that that particular well, that its tubing pressure will move between a high of, oh, you know, 2300 pounds to as low as 100 pounds. And during that period of time, the injection -- I'm sorry, that's the withdrawal rate.

The tubing pressure -- This is not in color, it's not -- I hope your version is in color, but --

EXAMINER STOGNER: Mine is in color --

THE WITNESS: Yeah, okay --

EXAMINER STOGNER: -- it's --

THE WITNESS: -- I'm talking about the plot, I'm talking about the plot here.

EXAMINER STOGNER: Oh, the plot.

THE WITNESS: Yeah.

EXAMINER STOGNER: Yes, I have a color version. It's yellow with a magenta line.

THE WITNESS: Right. So the green line is the injection withdrawal rate. And so you can see that that's plotted off of the Y axis on the right side of the graph.

And so during this period, October 21st to November 30th, this particular well, looking at the green curve, experienced injection that went as high as 15 million cubic feet per day, and then it experienced withdrawal that went as high as close to 20 million cubic feet a day. An during that period you can see the corresponding swing in the tubing pressure.

The next plot is a similar plot for Grama Ridge Storage Well Number 2, and those are essentially the two wells that experience 99 percent of all the activity that constitutes the storage unit.

Q. (By Mr. Hall) So these exhibits show, rather than having a steady state of decline in the reservoir, you have a rather dynamic --

A. Exactly.

Q. -- pressure situation?

A. Right.

Q. Refer back again to Order R-7582 under Exhibit Tab 28 --

A. Uh-huh.

Q. -- and could you explain what type of data the operator of the offsetting Morrow well offsetting the unit was directed by the Division to provide in that case?

A. Yeah, that Division order required detailed drilling data to be submitted to the gas storage operator, including the time and the weight on the bit, changes of bit, copies of drill stem tests, mudlog information, samples of drill cuttings, of course a complete suite of logs.

And in addition, if the operator, the gas storage operator, was to determine from this information that this well was within their structurally or stratigraphically equivalent unit, then they had -- by virtue of this order, had the right to take over that well for some period of time and actually test it themselves, run an RFT test or things like that.

Q. All right. And is Raptor recommending similar well data be provided in conjunction with the order and special project rules that might issue from this proceeding?

A. Similar, but certainly to a lesser extent.

Q. All right. Let's look at Exhibit 4, the Proposed Special Project Rules and Operating Procedures. If you could briefly go through that for the Hearing Examiner and,

for instance, look at the requirement for well data under Rule 5 there, what do these rules propose to do?

A. Well, Rule 5 is kind of our notification rule. If you intend to drill within the Raptor Gas Storage Unit, we would ask you, 5. a.), to give us some notification you're getting ready to do that.

5. b), we would ask that when you start drilling operations that you would provide us with the normal International Association of Drilling Contractor-type daily drilling reports. We would ask, then, that when you anticipate encountering the top of the Morrow formation with your drill bit, that you kind of let us know when that's going to happen.

Other than that, we're just asking for a suite of logs on the well.

So Rule 5 is just notification, some what we consider to be non-onerous requests but some daily drilling reports and then a suite of logs, all of which I'm sure this could be kept confidential as was discussed earlier.

Rule 6 --

Q. Go ahead and explain what additional steps would be required during the various drilling and completion phases.

A. Okay. During the completion phase, if the new well or recompletion well within Raptor's unit is intended

to be completed above the unitized formation or below the unitized formation, then we are requesting certain procedures in terms of submitting requirements to be implemented to protect the high-pressure nonindigenous gas stored within that unitized interval.

If the well is to be -- If it's just an exploratory well they drilled and decide -- don't find anything worth completing, then there's certain plugging requirements that we ask for that are, again, just asking that cement be covered, our unitized formation. We're certainly asking that no completions be allowed directly within the vertical limits of the unitized formation.

Q. All right. Let's explain the operation of Rule 7, and are there graphic depictions of the operations of each of these rules?

A. Yes, we have some exhibits that depict what we're asking for in actually Rules 6. b.) and c.) and Rule 7 and such as that.

Q. All right, let's refer to Exhibit 24. Does this graphically demonstrate the application of Rule 6. b.) for completions above the unitized formation?

A. Yes. Let me look at this colored one here.

Q. As I understand it, the rules that apply when you have a Morrow penetration, first of all.

A. Right.

Q. Let's work our way down from that circumstance where you have a Morrow penetration and you have casing set into the unitized formation with the completion above the unitized formation.

A. Right. This is a depiction of what we're asking for in Rule 6. b.). If we have an operator -- a new well that intends to be drilled into our unitized formation, and they subsequently desire to set their casing within our formation and then complete above the unitized formation, or let's say that they have drilled all the way through our formation and desire to set casing completely -- I don't know why anybody would really do that in the depiction on the right side of the exhibit for Rule 6. b.), but just in case that circumstance occurs, in both cases all we're asking for is that a cement plug cover our unitized formation and that as added protection that the new driller put a cement plug above and below our unitized interval, and then again as additional protection a little block squeeze below their perforated interval.

That is what we're asking for in Rule 6. b.), and again it applies to those wells that are drilled into or through our formation and completions above.

The next exhibit, 25, this is a depiction of what we're asking for to help protect release of our storage gas in Rule 6. c.). In Rule 6. c.) we contemplate the

situation where the hole might be drilled into our unitized formation, but casing is not actually set into the formation, just set the casing above.

In that case, on the left side of this exhibit, we're just asking to put a cement plug down there and bring it up at least, you know, 15 feet or so higher than the top of our unitized formation, and then also to do a little block squeeze below their set of perforations.

On the right side of that exhibit we contemplate another set of circumstances, possibly, where they drill open-hole through our unitized formation. In this case we'll say, Well, let's give them a break, you don't have to dump cement all the way to TD, you can cut off and set a bridge plug at maybe 15, 20 feet or so below the bottom of our unitized formation and then set your cement plug on top of that, then in addition squeeze below your perforations.

On the next exhibit, 26, this applies on the left to Rule 7. b.). Rule 7. b.) contemplates that a well would be drilled into and through our unitized formation, and that operator would subsequently elect to complete in some interval below our unitized formation.

If he does that, again, standard request, we're asking that our unitized formation be isolated with block squeezes above and below, and then a block squeeze above his shallowest depth, his shallowest set of perforations.

Rule 8. b.) applies to a case where we just -- someone has drilled an exploratory well, they log it and decide they're not going to set casing or complete anywhere, so in that case all we're asking is that sufficient cement be put across our formation. And if the well is real deep, you can come up and put a bridge plug there and just fill cement across the unitized formation from that interval.

Q. Mr. Wells, in your opinion, based on your experience as well, are these proposed special project rules reasonable?

A. Yes, I think they certainly are reasonable, yes.

Q. And did the proposed rules impose an undue burden on operators in the area?

A. No, I don't believe they do.

Q. Is there a precedent from other states for operating procedures like we're proposing here?

A. Yes, in fact, I brought an exhibit from the Texas Railroad Commission --

Q. Is that Exhibit 27?

A. -- Exhibit Number 27. This is a Texas Railroad Commission order having to do with a situation very analogous to what we're dealing with here. The Atkinson Storage Field in Karnes County, Texas, had a unitized interval that was designated within the findings here.

And then back in Rule 7 on the last page, the Texas Railroad Commission stated that hereinafter anyone drilling in this field or within the storage unit for completion below the so-called Atkinson gas storage reservoir would be required to block-squeeze cement.

And you can see that some of their requirements are more stringent than what we're asking for. They're setting 100 feet below the base of the Atkinson and 150 feet above the top. We're just asking for -- you know, we're asking to either cover our zone and give us 15, 20 feet or something, top and bottom. They went on here to set similar rules for wells that would be completed -- drilled through and completed below.

So this, I think, is a good example of, you know, regulatory precedent on what we're asking for.

Q. All right. Now, do you understand the injection, storage and withdrawal of gas within the project area to constitute what is known as a common source of supply?

A. Yes, I do recognize that it is a common source of supply, with the caveat, however, that this is -- this gas belongs to Raptor, it's non-indigenous gas, it was injected and belongs to them.

Q. All right. But the owners of the gas injected within the storage project do have correlative rights to the ownership of that gas?

A. Exactly.

Q. And would the owner or operator of a newly drilled well, recompleted well penetrating the Morrow formation have any correlative rights in the project gas itself?

A. Certainly not.

Q. It's separately owned, isn't it?

A. Certainly.

Q. On the other hand, if a newly drilled well or a recompletion proves to be in communication with the project area, would the correlative rights of the interest owners in the unit gas be adversely affected?

A. They would, most certainly.

Q. And in your opinion, would the proposed special project rules protect the correlative rights of the unit participants in the project gas?

A. They would go a long way towards protecting those correlative rights.

Q. All right. Were Exhibits 21 through 27 prepared by you or assembled at your direction?

A. They were.

MR. HALL: That concludes our direct of this witness. We'd move the admission of Exhibits 21 through 27.

EXAMINER STOGNER: Any objection?

MR. CARR: No objection.

EXAMINER STOGNER: Exhibits 21 through 27 will be admitted into evidence.

Thank you, Mr. Hall.

Mr. Carr, your witness.

EXAMINATION

BY MR. CARR:

Q. Mr. Wells, as I look at these rules, you're not proposing anything for existing wells. Old wells are grandfathered in?

A. That's right, these are for new wells to come inside of the unit.

Q. And when I look at the rules and the schematics that you have presented, the only time there would be additional cementing requirements, in fact, is if a well is drilled that penetrates unitized interval; isn't that right?

A. Exactly, if you don't penetrate the interval, we don't care anything about it.

Q. And as far as you understand, there's no objection to keeping logs or other information confidential unless otherwise required?

A. That's certainly up to Raptor, right.

Q. You wouldn't see any reason --

A. I wouldn't recommend any --

Q. We've looked at --

A. -- objection.

Q. -- prior drafts of rules. Have you seen the earlier drafts that were advanced by LG&E and others?

A. The earlier drafts?

Q. Drafts of proposed rules?

A. Yes, I have.

Q. This set of rules has eliminated the buffer zone around the unit.

A. Yes.

Q. Is it fair to say that there's nothing in these rules that give Raptor the right to take over a wellbore if another operator came in? They're required to cement and do some other things, but they're not like earlier rules where there would be circumstance where the wellbore would have to be turned over?

A. Withinside the unit --

Q. Yes.

A. -- or are you saying outside the unit?

Q. Anything in these rules.

A. Either one. In any case -- Well, first of all, we're not asking for any project rules -- as I understand it, we're not requesting any special project rules to apply to any well that's outside of these five sections. The wells inside of those five sections, we're not specifically

asking to come take over your well. No, we're not asking for that.

Q. You're concerned that any of the gas that's injected to the reservoir not be produced by a third party?

A. Exactly.

Q. It's your gas?

A. Right. Not only not produced, but not allowed -- unintentionally allowed to have some escape point for the -- behind -- That's the reason for all that cementing, is to make sure we don't have escape points.

Q. And if these rules are implemented and wells -- if there are additional wells that are properly drilled, this would also protect the rights of other people to develop and produce indigenous gases without interfering with the storage project?

A. I'd agree with that, yeah.

MR. CARR: That's all I have. Thank you.

EXAMINER STOGNER: Any redirect?

MR. HALL: Clarify one matter.

FURTHER EXAMINATION

MR. HALL:

Q. Mr. Wells, isn't it the case that the special project rules would in fact apply to wells penetrating the unitized formation as well as wells penetrating the Morrow formation above the unitized formation?

A. Yes. I mean, the project rules apply -- I guess that's where we get into some semantics on the definitions of all of that, and that's -- If we have storage gas that potentially resides over some vertical interval, then my recommendation is that we don't allow completion anywhere in that interval.

FURTHER EXAMINATION

BY MR. CARR:

Q. Just one follow-up. I'm not trying to create confusion here. As I looked at the rules, if you don't penetrate the unitized interval, there's really nothing to put a cement plug in or behind, is what my thought was, and so if you don't get to the unitized formation, you probably don't have an additional requirement?

A. Right, if you don't drill down to the top or anything, then we have no concern.

MR. CARR: That's all I have.

EXAMINATION

BY EXAMINER STOGNER:

Q. Top of the unitized interval, or top of Morrow formation?

A. Well, there we go, see? It's --

MR. HALL: And -- Would you like me to address that?

EXAMINER STOGNER: I need somebody to address it.

MR. HALL: Yes. The way we have provided for these rules to work is to trigger their application when the top of the Morrow formation is penetrated. The additional specific requirements apply where there are actual penetrations of the top of the unitized formation as well, within the Morrow.

And now, remember, we have two definitions of unitized formation at work here, under the State unit agreement and the federal unit agreement, and both of those definitions are set forth in Rule 3. It is correct that the unitized formation, the definition set forth in the federal agreement is probably larger vertically than that in the State, which is off of log picks.

EXAMINER STOGNER: It's a twofold -- If the Morrow is penetrated, then it triggers, you said --

MR. HALL: Yes.

EXAMINER STOGNER: -- other stipulations in here?

Q. (By Examiner Stogner) Now, Mr. Carr had asked you a question, Mr. Wells, about existing wells. Wouldn't these rules cover those once those wells were plugged and abandoned?

A. Well, if a well is to be plugged and abandoned, yes. If there is a current well that penetrates the unitized formation and that well is to be plugged and abandoned, these rules we would ask to be applied to that

abandoning situation, yes, or recompletions of wells that may already exist withinside of the unit, certainly.

Q. Okay, and that's clear in Rule 5 because it talks about the drilling of a new well, or recompletion of an existing well?

A. Right, right.

Q. These rules only address the cementing practices, but not stimulation practices; is that correct?

A. We have not elected to get into prescribing things about future operators' intention to stimulate their wells, no.

MR. HALL: Mr. Examiner, if I might address that point, when we use the phraseology in here, completions or recompletions, you said in the broader sense if there is some, say, fracture stimulation outside of the Morrow or the unitized formation that results in fractures penetrating the unitized formation, I think that might be considered a completion within, and so it's conceivable that they could apply in that context.

Q. (By Examiner Stogner) Referring to Exhibit Number 28, whatever happened to that well? Is that well still producing? Did it get turned over?

A. Well, no, what they did was -- Yeah, they did turn over the well, and they ran some tests on it, but I don't think that the ultimate disposition of that was that

it was found to be in communication. In fact, we've got an interpretation today that shows a fairly major fault that separates the gas storage unit from that well. But at the time, that was additional data that went into helping us to delineate that fault.

Q. Is that well still producing?

A. I don't know the status of that well, to tell you the truth. Again, you know, the ongoing performance and predictability of the pressure and inventory relationship at the storage unit has been sufficient for the unit operators to feel comfortable if their gas is being maintained within some confines and it hasn't been escaped or produced or anything like that.

The problem is that we still contend we don't have a good idea of exactly how far laterally our gas might propagate. But we don't think it propagates to the west of that major fault that separates that Federal Number 1.

Q. That original order, or that order from 1984, if that well had been turned over, was there a clause that that unit would have automatically expanded to include that area?

A. I'll have to defer on that.

MR. HALL: Mr. Examiner, I just don't know the complete history of that. All we do know is that the unit was not expanded to include that, although I would point

out that under the Underground Gas Storage Act, the unit operator of gas storage units have the power of eminent domain to condemn acreage like that in such a circumstance. To our knowledge, that was not done.

We'll be glad to run down that information, whether that well is still producing, provide that to you.

EXAMINER STOGNER: I'll just take administrative record of the Division well files on that particular well. Not only eminent domain, but also it would have been obligated, since somebody's void space was being utilized for commercial properties and not being properly funded, they would have been responsible in that manner, the storage people; is that correct?

MR. HALL: Possibly so.

EXAMINER STOGNER: Possibly, or probably?

MR. HALL: Maybe.

EXAMINER STOGNER: Maybe. Hopefully?

THE WITNESS: Most likely.

EXAMINER STOGNER: Are there any other questions of Mr. Wells?

MR. CARR: One.

FURTHER EXAMINATION

BY MR. CARR:

Q. Mr. Wells, have you reviewed any information on the Nearburg well in the north half of Section 34?

A. I have had an opportunity to look at some of that, yes.

Q. Based on your review of that, do you have an opinion as to whether or not it is at this time producing reserves --

A. It is --

Q. -- the project?

A. It's my opinion that there's not sufficient data that can point to definite communication. On the other hand, I have advised Raptor that they should continuously monitor that and collect data and watch it, because just because it's not in communication at one point in time doesn't mean that -- as Karl Looff indicated, things can happen that would cause communication at a later date.

MR. CARR: Thank you.

EXAMINER STOGNER: Any other questions?

MR. HALL: No, sir.

EXAMINER STOGNER: You may be excused. Is there any other need for bringing any of the other witnesses back at this time?

MR. HALL: No, sir. We would offer you the counsel's notice affidavits for both Case 12,441 and 12,588, move their admission into the record. I don't have them marked as exhibits *per se* but would be glad to do so.

EXAMINER STOGNER: I don't believe it will be

necessary to mark them as an exhibit. We'll just refer to them as the affidavit of mailing and notifications.

MR. HALL: Mr. Examiner, I also have draft orders to offer you on disc and hard copies.

EXAMINER STOGNER: Thank you. I believe we're ready for closing statements.

Mr. Carr, I'll let you go first.

MR. CARR: Mr. Stogner, the only comment I have at the conclusion is, we would request that the rules provide that information made available to Raptor or its successor pursuant to these rules be kept confidential unless disclosure is otherwise required by the Division.

Other than that, I have no closing statement.

MR. HALL: And I have no closing statement either.

I would say that a confidentiality provision would certainly be agreeable to us. And I'll be glad to work with Mr. Carr to develop some language to put in an order, if you request it.

EXAMINER STOGNER: If you two would work together and propose an amendment or a change to one, or addition of a rule or whatever is necessary, and -- that would be most helpful.

MR. HALL: Mr. Examiner, you had asked me a question at the outset with respect to information about

the history of the conversion of the initial production well to conversion well. I'm not sure I understood your question, but is that still on the table? Do I need to follow up on that?

EXAMINER STOGNER: No, it's not necessary now because I believe Mr. Wells satisfied that with some information. At the time, as we were starting today, I was wanting just a little bit more of a background, and he did satisfy that, and it looks to me there was a time there, or I'm satisfied that there's some information. So the cumulative testimony of all of them that the royalties were taken care of before the storage unit came into effect...

Is there anything else further at this time?

MR. HALL: No, sir. Again, we appreciate this special hearing date and also appreciate the long patience of the Division for these cases.

EXAMINER STOGNER: Thank you very much, and thank you for working -- all the parties involved, thanks for working together on something like this.

If there's nothing further in this matter then I will prepare to take this matter under advisement.

If you two will work together and at your convenience bring forth an amendment about the confidentiality, and only the confidentiality. And don't let that become a contention between the parties.

MR. CARR: Just wait.

(Laughter)

EXAMINER STOGNER: Right, that's an order. Okay, with that, hearing is adjourned.

(Thereupon, these proceedings were concluded at 11:00 a.m.)

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case Nos. 12588 and 12441 heard by me on 21 May 2001

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 May 31st, 2001.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002