STATE OF NEW MEXICO

ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

Application of Longfellow Energy, LP for compulsory pooling, Eddy County, New Mexico	Case No. 21651
Application of Spur Energy Partners, LLC for compulsory pooling Eddy County, New Mexico	Case No. 21733

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING - VOLUME 1

THURSDAY, JUNE 17, 2021

11:59 A.M.

This matter came on for hearing before the New Mexico Oil Conservation Division, Hearing Examiner William Brancard, Technical Examiners Leonard Lowe and John Garcia, on Thursday, June 17, 2021, via the Webex Videoconferencing platform

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E X H I B I T I N D E X

(Time noted: 11:59 a.m.)

HEARING EXAMINER BRANCARD: Okay. We have one more item coming up on the agenda, and let me check with the parties to see what we are going to do here, whether we need to take a lunch break.

Ms. Shaheen this may be you, also, I don't know. Items 17 and 18, Longfellow Energy and Spur Energy Partners, competing compulsory pooling cases.

If you could just start up with some entries of appearance.

Longfellow. Montgomery & Andrews.

MS. SHAHEEN: Sharon Shaheen on behalf of Longfellow Energy.

HEARING EXAMINER BRANCARD: Okay that we've one more item coming up on the agenda and let me check with the parties to see what we are going to do here, whether we need to take a lunch break.

HEARING EXAMINER BRANCARD: Ms. Shaheen this may be you also, I don't know. Items 17 and 18, Longefellow Energy and Spur Energy Partners, competing compulsory pooling cases.

If you could just start up with some entries of appearance.

Longfellow, Montgomery & Andrews.

MS. SHAHEEN: Sharon Shaheen on behalf of

Longfellow Energy.

HEARING EXAMINER BRANCARD: And Spur Energy Partners, Holland & Hart.

MR. RANKIN: Good morning, Mr. Hearing Examiner. Adam Rankin of the the law of firm of Holland & Hart appearing on behalf of the applicant in Case 21733, Spur Energy Partners.

HEARING EXAMINER BRANCARD: And I also have an entry on behalf of ConocoPhillips. Hinkle, Shanor.

MR. RODRIGUEZ: Good afternoon. Michael Rodriguez with Hinkle, Shanor on behalf of ConocoPhillips.

HEARING EXAMINER BRANCARD: And was it ConocoPhillips that requested a continuance in this matter, Mr. Rodriguez?

MR. RODRIGUEZ: That's correct.

HEARING EXAMINER BRANCARD: So let's just address that issue of the continuance and we will see where we are and whether we are going to go to a full hearing today.

What is the position of Longfellow and then Spur on a continuance of this case, or are you ready to go with the hearing?

Ms. Shaheen?

MS. SHAHEEN: Mr. Examiner, I was not aware

that a Motion for Continuance was filed in this case. I may have missed something here. I know that they filed, Conoco filed a Motion for Continuance in the Marley (phonetic) matter but I was a unaware of one in Hendrix.

This was scheduled for a contested hearing by Prehearing Order originally in April, I believe, and then it was continued by an Amended Prehearing Order to today's date.

HEARING EXAMINER BRANCARD: I believe it might be -- no. So there was an actual motion, Mr. Rodriguez?

MR. RODRIGUEZ: Yes. We submitted a motion to continue this case to July 15th, I believe on June 10th.

HEARING EXAMINER BRANCARD: Well, that explains, Ms. Shaheen, why they didn't get a response from you.

MS. SHAHEEN: I apologize. I was unaware of a motion for continuance in this case, and I don't see it noted on the docket.

HEARING EXAMINER BRANCARD: Well, you know, because this was set up through a Prehearing Order as a competing case, I did not set this as a status conference because it's set up for a competing hearing today, and then I just thought we would address this motion. If the parties suddenly wanted to agree to

continue this case, they could, but for now it's set up for hearing.

Let me jump to Mr. Rankin quickly here.

MR. RANKIN: Thank you, Mr. Hearing Examiner.

At the time ConocoPhillips requested the motion we had concurred in their request for continuance. We were and still are working towards reaching agreements with numerous working interest owners in the proposed spacing unit, including with ConocoPhillips and MEC Corporation.

We received yesterday, and then today, Letters of Support from both those companies supporting Spur Energy Partners as the operator and Spur's application in this case over Longfellow. So we expect, you know, some of these agreements to be finalized by the end of this month.

Now, that being said, you know we've prepared for a hearing today and we are prepared to go forward with our case in opposition to Longfellow's case. You know, as a result of the Letters of Support from both those operators Spur in its calculations now has more than 50 percent of the working interest control over the spacing unit, so we are ready to go forward, even though some of the agreements and efforts to reach agreement are still pending finalization at this point.

I might just say I would like hear from ConocoPhillips if their position has changed or they would still like to request a continuance.

MR. RODRIGUEZ: Conoco's position would be to have this matter continued, and I believe I have an email from my legal assistant where Ms. Shaheen actually was copied on the submission of the motion, as well, on June 10th.

To echo Mr. Rankin, Conoco is still in negotiations in evaluating these proposals and find it beneficial to continue this case or these cases out in order to hopefully resolve these matters.

MS. SHAHEEN: Mr. Examiner, if I may, I apologize if I missed a motion hearing and haven't responded, but Longfellow strongly feels like this should go forward. We spent hours and hours and plenty of time, as you can see from our exhibits that we submitted a week ago, and I had no indication from Mr. Rankin that Spur opposed going forward today. In fact we communicated late last night, and both parties are ready to go forward.

HEARING EXAMINER BRANCARD: Mr. Rodriguez your position is still as it reads in your motion that Conoco is evaluating the competing proposals and wants some more time?

MR. RODRIGUEZ: That's correct. There are some well proposals that changed in Spur's proposals that were received in early June, and so being that those locations have changed Conoco is still running the numbers and trying to determine what the best step forward would be. MS. SHAHEEN: Mr. Examiner, if I may. Spur has at times changed some surface locations and I believe some bottomhole locations, but I don't believe that Longfellow should be prejudiced by Spur's various changes in its application and its proposals.

HEARING EXAMINER BRANCARD: And when did you file your application, Ms. Shaheen?

MS. SHAHEEN: Our application was filed --

HEARING EXAMINER BRANCARD: Looks like -- is this January 12th?

MS. SHAHEEN: And it's been continued a number of times and reset previously, so I think it's time for this case to go forward. Nothing has changed on ConocoPhillips' part.

HEARING EXAMINER BRANCARD: I set this for a hearing because I was assuming I was going to deny this motion for a continuance, and I don't think I've heard anything different right now.

I would like to take a break, people can

get a little bit to eat here, and come back with your witnesses.

How many witness do you have, Ms. Shaheen?

MS. SHAHEEN: Three witnesses.

HEARING EXAMINER BRANCARD: And about how long for testimony?

MS. SHAHEEN: I think their direct testimony we can probably do, depending on -- I would like to walk through the written testimony briefly. I would expect that would take no more than 30 minutes to 45 minutes.

I understand that Mr. Rankin has quite a bit of cross-exam and rebuttal, so that may take some time.

I also have quite a bit of cross-examination for Spur's witnesses.

HEARING EXAMINER BRANCARD: Mr. Rankin, how long do you anticipate your witnesses?

MR. RANKIN: Mr. Brancard, I think depending on how the Division wants to proceed, my preference would be to simply call the witnesses, have them sworn in and adopt their testimony, and not walk through a repeat or rehash or restate their Prefiled Written Testimony. That would save us a lot of time, I would think. However, if that is the Division's preference,

we would ask to do the same. And I think we could probably do it in about 30 or 45 minutes, although I haven't, you know, gone through that process yet so I don't know exactly how long it would take.

And yes, we do have some cross. How much. Then we would like to ensure we have an opportunity to present a full rebuttal case. Longfellow's direct case had extensive exhibits, so we would like an opportunity to present our full rebuttal addressing their points.

So I just don't want to be prejudiced by, you know, the summary of Prefiled Written Testimony so that we wouldn't be able to present our full rebuttal case. So if this is required to go to tomorrow morning, I would like to make sure we have the opportunity to do so.

HEARING EXAMINER BRANCARD: Mr. Garcia, any preferences?

EXAMINER GARCIA: I have none.

HEARING EXAMINER BRANCARD: Okay. I'm going to rule that the motion for a continuance is denied. The continuance request is not coming from one of the parties with a competing proposal here. So I think the parties are ready to have a hearing, and we should move forward with it.

I'd like to take a break till about, say -- I don't know what works for the parties. Does 12:45 or 1:00 clock work for you all?

Ms. Shaheen?

MS. SHAHEEN: I haven't checked with my client but I believe they are available, uhm, all day, so that should be fine.

HEARING EXAMINER BRANCARD: Mr. Rankin?

MR. RANKIN: I think 12:45 should be fine. You know, if -- that would give us an extra 15 minutes. I think that is a workable time. Again I haven't checked with my folks, either, but they should be available and ready to go.

HEARING EXAMINER BRANCARD: Mr. Rodriguez?

MR. RODRIGUEZ: 12:45 sounds great.

(Note: Discussion off the record.)

HEARING EXAMINER BRANCARD: All right. So we are back here at 1:05.

(Note: In recess from 12:06 p.m. to 1:08 p.m.)

HEARING EXAMINER BRANCARD: Okay. We are back on the record in Case 21651, Longfellow Energy's Application for Compulsory Pooling, and 21733, Spur Energy Partners Application for Compulsory Pooling. We have competing applications.

The parties have provided us with some

statement that there are significant matters that are not in dispute. Both parties are seeking to pool the same spacing unit, the same formation.

So that's kind of -- makes it simpler.

There seems to be a difference in the number of wells here, five versus six, and of course there are disputes as to who really has the larger share of the working interest in the unit.

So given that, I'd like you to focus on, you know, what the differences are between that parties here and given the factors that the Commission has considered in the past, the Commission has focused on the plan or development of the parties and which will produce the greatest benefit of these resources. Working interest ownership and control is another relevant concern, as are some others factors, say the experience of the parties and costs, et cetera.

So with that, try to focus your presentations on what's relevant to the case today, and then we can move forward.

Any thoughts from Mr. Garcia or Mr. Lowe?

EXAMINER GARCIA: No particular thoughts.

This is Case 17 and 18?

HEARING EXAMINER BRANCARD: Yes 21651 and 21733.

With that I see that Longfellow has the first filed case, so I'll let them go first.

Ms. Shaheen.

MR. RANKIN: Mr. Hearing Examiner, if I might just interject, but I just want to make clear Ms. Shaheen requested direction, and myself, as well, as to how the Division would like the parties to go about the presentation of the Direct Testimony, if they would like us to summarize that testimony or simply have the witnesses adopt and then admit their evidence, their affidavits and exhibits as evidence into the record.

HEARING EXAMINER BRANCARD: And being subject to cross-examination.

MR. RANKIN: Right, subject to cross examination, and then proceed to rebuttal from each side.

HEARING EXAMINER BRANCARD: Well, I would like to hear from Mr. Lowe and Mr. Garcia about what their preferences would be, whether to hear some direct testimony from the witnesses or simply rely on their written testimonies and follow with questions on that.

Mr. Lowe.

EXAMINER LOWE: Uhm, I can go both ways. If John wants to hear them, I'd like to hear them, too, but if not, I can go with what they submitted.

HEARING EXAMINER BRANCARD: Mr. Garcia.

EXAMINER GARCIA: Uhm, I think a brief overview of exhibits would be nice. It would help out with what questions we might have.

HEARING EXAMINER BRANCARD: Okay. I guess we will go with that, then.

Can you handle that, Ms. Shaheen?

MS. SHAHEEN: Absolutely.

Did you want to hear brief opening statements or do you want us to save that. I believe Mr. Rankin and I talked about requesting written closing, statements but I'm happy to do a brief opening statement if you would like, or we can just jump right in. Whatever you-all prefer.

HEARING EXAMINER BRANCARD: Yeah, perhaps a brief opening statement. And I mean brief. Like I said, we asked the parties to summarize their relative positions, and you have done so briefly, and so if you disagree with my characterization of the case, that would be helpful.

Mr. Rankin?

MR. RANKIN: I would very much appreciate the opportunity to present a brief opening statement. I think it would help focus the hearing examiners on the issues that I think are most relevant in the case, and

since the exhibits have been filed I think we have been able to crystallize a few more issues. I think it would be helpful to have more direction, at least, through an opening statement.

HEARING EXAMINER BRANCARD: Okay. Ms. Shaheen, you may start.

MS. SHAHEEN: Thank you.

The parties are proposing a spacing unit in a standard 480-acre, more or less, spacing unit comprised of the northeast quarter of Section 14 and the north half of Section 13, all within Township 17 South, Range 28 East in Eddy County.

As we will establish today, Longfellow has the better development plan for a number of reasons, and is better situated for development of the HSU.

I understand Spur has a rather novel theory with respect to calculating the working interest ownership here, but it can't be disputed that Longfellow owns the largest share of the working interests and therefore are responsible for the largest share of well costs. They own approximately 47 percent at this time and, upon information and belief, Spur has only 40 percent.

Longfellow proposed its wells first and filed the first application. Longfellow has worked

diligently from December, 2019, to the present, and has made acquisitions from 15 different working interests to put together its interest in this unit.

This application is part of Longfellow's larger development plan. Longfellow has drilled just to the south, in the offsetting 320-acre spacing unit, five similar horizontal wells that have been recently completed. They also have water infrastructure in the area, less than one mile from their proposed surface drilling pads. They have a water recycling facility, they will have a gas connection and anticipate no flaring.

All of this will result in less surface disturbance and less environmental impact overall.

Spur's C-102s are incorrect, as we will demonstrate in the hearing, and their footages are therefore incorrect. The locations of the well are not accurately depicted in the C-102s.

Longfellow also has an executed Service Use Agreement for both of its pads.

Within the proposed spacing unit Longfellow actually operates four producing vertical adjacent wells, so it will be easier and more efficient for Longfellow to protect those vertical wells.

Longfellow's proposed five wells, they

will be fracking using larger fracks and that will enable them to recover maximum hydrocarbons at the least amount of costs.

I think with that, that sets the stage for the facts that we will establish here at the hearing.

HEARING EXAMINER BRANCARD: Thank you for keeping it brief.

Mr. Rankin.

MR. RANKIN: Thank you very much, Mr. Hearing Examiner.

Yes, the parties in this case both are proposing the same 480-acre horizontal spacing unit in the Yeso Formation. Both parties are targeting the same basic intervals within that formation, the Paddock and then immediately below the Paddock the Blinebry.

Now, as I have outlined in our prehearing statement, the elements that the Division considers for completing well proposal cases, competing well cases, all favor Spur. And I'll walk through those, but there's a few that I want to highlight.

First, Spur proposes to dedicate six wells to the 480-acre spacing unit, three wells in Paddock spaced at about 900 feet apart and then three wells in the Blinebry spaced about 935 feet apart.

In Longfellow's competing case, Longfellow seeks to pool the exact same acreage but plans to dedicate a total of five wells in the spacing unit at a higher cost, substantially higher cost. They propose three wells in the Paddock, also spaced about 900 feet apart, but only two wells in the Blinebry spaced at about 900 feet, a little closer than what Spur is proposing.

So throughout the hearing here and the presentation of the testimony there's essentially three principal main differences that I want to draw your attention to that will all favor Spur and Spur's proposed development.

First, Spur proposes a spacing unit pattern that takes into account the location and distance to existing offset and producing wells to the south operated by Longfellow in the south half of Section 13. Spur's proposed Paddock wells are spaced at a consistent distance of about 900 feet apart, not only between themselves in the proposed spacing unit but also between the existing wells in the south half of Section 13, in order to be the most efficient.

Similarly, Spur's proposed Blinebry wells are spaced at a distance of a little over 900 feet and are located in a manner that will allow the most

efficient development and drainage not just within the proposed spacing unit but also in the gap between the spacing units created by Longfellow's existing Blinebry well spacing in the south half of Section 13. That gap is the critical distinction between these two proposals.

By contrast Longfellow's Blinebry wells use a substantial spacing depth, almost 1800 feet, more than enough for an additional well in the Blinebry. Longfellow's plan is highly likely to leave reserves in the ground resulting in potential substantial waste due to inefficient spacing.

Second, having inherited the operations of and some of the experience of its predecessors in interest, both Concho and Percussion, Spur recognizes the value in targeting a slightly deeper bench in the Blinebry interval to avoid straining of the reserves. Its center Blinebry well in its proposed spacing unit therefore targets a slightly deeper zone, about 250 feet deeper than its other two Blinebry wells. That will develop reserves that Longfellow proposes to leave in the ground.

So because Longfellow doesn't propose to develop those reserves, Longfellow's plans will not only result in waste because it will leave those behind but it will also impair Spur's correlative rights by

foreclosing Spur's opportunity to develop its mineral interests in this slightly deeper zone.

The third difference is in the completion design and resultant substantial difference in cost effectiveness. Spur proposes a completion design using 60 barrels per foot compared to Longfellow's proposal of 90 barrels per foot. The difference is that Longfellow's completion cost is substantially higher.

Longfellow tries to explain away the difference in costs but the differences are substantial and real. Critically, Longfellow's larger completion costs will not result in incremental improvements in production.

Again, back to predecessors' experience and expertise testing the benefits of different efficient programs across the Yeso, Spur has determined that fracks larger than 60 barrels per foot do not translate into incremental recovery that would justify the expense.

Now, aside from (inaudible) demonstrable waste and substantially higher unjustified costs that support granting Spur's application over Longfellow's, Spur also has most important factor in its favor in a competing proposal case that the Division considers, and and that is its control of the majority of working

interest.

Spur controls now more than 50 percent of the working interest based on ownership of the mineral estate and the tracts that comprise the proposed 480-acre spacing unit. It has the support now of the working interest owners MEC Petroleum Corporation and ConocoPhillips Company.

Mr. Brancard, we will address this shortly, but we just did receive Letters of Support for Spur as the operator of those proposed units in the application over Longfellow that we will be asking to. In addition, it's working on -- it's got some other agreements in the works that it expects to finalize in the coming month.

In contrast we believe that Longfellow controls less than 40 percent of working interests in the tracts that comprise the acreage.

As you will see, Longfellow purports to control a larger share of working interests than Spur. The only way it can get to that number is by including in their ownership calculation contractual interests from overlapping agreements, instead of just the owners of record in the mineral estate underlying the tracts that comprise the spacing unit, as the New Mexico pooling statute pooling requires.

By relying on those contractual interests and those interests and imposing them on the working interest owners in the mineral estate of the proposed spacing unit, Longfellow's calculations dilute not just Spur's interest but all the other working interest owners in those tracts by about 50 percent.

So the New Mexico pooling statute doesn't provide for the pooling of owners of contractual interests who do not have an interest in the mineral estate in the proposed spacing unit. It provides only for the pooling of owners of mineral interests in the tracts embraced in the proposed spacing unit. There's no dispute who owns the mineral estate here in the tracts in the underlying spacing unit.

Both Longfellow and Spur rely on the same title work. The only question is how to calculate that working interest for purposes of compulsory pooling under New Mexico law.

We think the law is clear. Calculating working interests the way Longfellow has proposed and does will mean that the allocation of costs and production under a Pooling Order will not be on a strictly surface acreage basis, because the interests will be therefore modified or diluted or increased, depending on the situation, by the overlapping

contractual interest that Longfellow seeks to impose on the mineral estate within the proposed spacing unit. That is clearly in conflict with the New Mexico Pooling Statute.

So Spur's ownership calculation is correct. Spur controls a majority working interest now, more than 50 percent in the 480-acre spacing unit, and longfellow cannot show that Spur's plan will result in waste, in fact the opposite is true.

So with that, Mr. Hearing Examiner, we ask the Division approve Spur's application and designate Spur as the operator, and deny Longfellow's competing application.

HEARING EXAMINER BRANCARD: Are you ready to proceed, Ms. Shaheen?

MS. SHAHEEN: I believe we are. I'm double-checking that my first witness is here, Mr. Ryan Reynolds.

HEARING EXAMINER BRANCARD: Let me just check.

Mr. Rodriguez, does your client have any interest in making a statement?

MR. RODRIGUEZ: Conoco has no opening remarks.

HEARING EXAMINER BRANCARD: Thank you.

MR. RODRIGUEZ: Thank you.

MS. SHAHEEN: There's Mr. Reynolds.

RYAN REYNOLDS,

having been duly sworn was testified as follows:

HEARING EXAMINER BRANCARD: Please proceed.

DIRECT EXAMINATION

BY MS. SHAHEEN:

Q. Mr. Reynolds, could you please state your full name for the record, please.

A. Ryan Reynolds.

Q. And you're appearing on behalf of Longfellow today, correct?

A. Yes.

Q. Have you previously testified before the Division and had your testimony accepted as a matter of record?

A. No, ma'am.

Q. Turning to your affidavit in this case, which is Exhibit A, and paragraph 4 you summarized your work experience. Could you provide that to the Division here.

A. Yes. I've worked for 11 years in the oil and gas industry. Previously I worked for seven years with Blue Baron Energy, which is a field land company that works for bigger operators. Did title work, worked as a

landman, field landman, project manager and land manager.

I've worked in various states, from Texas, Oklahoma, New Mexico, Louisiana, Pennsylvania, North Dakota. In the Permian Basin, Barnettsville (phonetic), Amesville, Eagle Burg, Stack/Scoop, and Northwest Shelf. And I've had four years experience in New Mexico.

MS. SHAHEEN: Thank you, Mr. Reynolds.

With that I offer Mr. Reynolds as an expert in petroleum land matters and ask that his testimony be accepted into the record.

HEARING EXAMINER BRANCARD: Any objections?

MR. RANKIN: No objections.

HEARING EXAMINER BRANCARD: Hearing none, Mr. Reynolds is accepted as an expert in these matters.

MS. SHAHEEN: Thank you.

Q. In the interest of conserving time, Mr. Reynolds, could you summarize just quickly the five wells that Longfellow has proposed here.

A. Yes. The Hendrix State Com 1314 ABX 1H, 2H, 3H and 4H and 5H.

How specific do you want me to go on this?

Q. I think maybe identify the wells that are in

the Paddock and the wells that are in the Blinebry.

A. Okay. Let me pull this up in the exhibit.

Q. And if that's not handy, we can get that from the geologist.

A. Yeah, I'll need to transfer this over to the geologist.

Q. Great. We'll follow up with Ms. Eker.

And the completed intervals in the first and last take points for all of these wells will meet statewide setback requirements; is that correct?

A. Yes.

Q. Turning to your Exhibit A-1, could you briefly describe this exhibit to the hearing examiner.

A. Yes, this will give a general visualization of the horizontal spacing unit, in a broad sense.

Q. And turning to Exhibit A -1 --excuse me, A-2.

A. This shows the tracts within the horizontal spacing unit and breakdown of the working interests or contractual rights within the horizontal spacing unit.

Q. And in Tract 1 is included the interests that are established by the joint operating agreements; is that correct?

A. That's correct.

Q. And the first being the Puma Joint Operating Agreement. Can you tell us about the Puma Joint

Operating Agreement?

A. The Puma JOA covers the northeast quarter of Section 15, 17 South, 28 East. This JOA actually has three different leases that will burden this tract. These depths will range from 3,000 to 10,385 feet, so the Yeso will be covered within these, and the other two will be from the surface down to about 10,385 feet.

The Puma JOA is a feed gas well and we became operator of this well also on May 20th, 2021.

My understanding is the -- okay. Let's see here. The spud date also on this was 3-29-2006, and we purchased this from Murchison.

Q. Turning to Tract 3, is there a JOA that's involved with respect to Tract 3.

A. Yes, ma'am. This the Aid State JOA. This covers the east half of Section 13, 17 South, 28 East, and will be subject to the northeast quarter of this horizontal spacing unit.

Q. You calculated the working interest percentages including the contractual interest under that JOA; is that correct?

A. That's correct.

Q. And in your experience in the oil and gas industry, is that the ordinary course and manner of determining who has -- what percentage of working

interest each working interest owner has, and allocating costs. Is that correct?

A. Absolutely.

Q. Turning to Exhibit A-3 there is a narrative of what was on Exhibit A-2; is that correct?

A. That's correct.

Q. And on Exhibit A-4 you have identified the leases that are at issue here?

A. That is correct.

Q. And then is it correct there are four state leases and one fee lease?

A. That is correct. The fee lease will be in Section 14.

Q. On Exhibit A-5 you have included a Chronology of Contacts. Do you see that?

A. That is correct. Me and in my predecessor Ryan Culpepper were the ones that put this together.

Q. And these are all the working interest owners who you and Mr. Culpepper have conferred with over the course of the past six months, correct?

A. That's correct.

Q. Turning to Exhibit A-6, these are your draft C-102s. I think they speak for themselves.

Taking a look at the plat itself, do you see that kind of unusual shape in that the section, not

directly horizontal to each other?

A. Correct.

Q. Why is that?

A. To be more precise and to give you a better understanding, I would like to transfer this over to engineering or geology.

Q. Okay. Exhibit A-7 is a copy of your Well Proposal Letter and the AFE; is that correct?

A. That is correct.

Q. Then you subsequently revised the AFE, and those are attached as Exhibit A-8?

A. That is correct.

Q. Can you explain to the hearing examiners why Longfellow provided revised AFEs?

A. This will be an engineering question. They put the AFEs together.

Q. Okay. Exhibit A-9 is a copy of the Notice Letter that went to all interested parties.

You also, in paragraph 24, talk about the offset tract immediately to the south. Can you describe what Longfellow's operations are there with respect to the Hendrix State Com 13 CD well?

A. So the Exhibit A-10, is that what you're referring to.

Q. Yes.

A. So in Exhibit A-10 this kind of gives you a visual of Longfellow's current operations, which is located directly south is the Hendrix 13 CD. We are actually in the last stages of completions right now.

It kind of gives you a basic overview of where these operations will take place with the current horizontal spacing unit we are talking about today and current operations directly south.

Q. And then in paragraph 25 you speak briefly about the nearby infrastructure. I understand that Mr. Mitchell will be talking about that in more detail, but can you just describe what you have there in paragraph 25.

A. So we're talking about the water infrastructure.

Q. Yes.

A. Okay. So we believe right here would be better infrastructure that -- I mean, let's see. I have a better answer for you here.

Q. If you turn to paragraph --

A. Oh, the retention pond.

Q. -- of the affidavit. Thank you.

A. Yes. Longfellow's able to use the surface in a more prudent manner with this.

Q. And then in paragraph 26 you state that Spur

has actually elected to participate in those Hendrix 13 CD wells directly to the south. Is that correct?

A. Since we weren't able to get any contract negotiations or trade done, they would most likely, under the pooling agreement -- or excuse me, forced pooling, they would elect under that as participate.

Q. And they have approximately 7 percent interest in those Hendrix CD wells; is that right?

A. That's correct. Which they have paid on the AFEs.

And then in paragraph 28 you represent that Longfellow has executed surface use agreements with the surface owner for its pad in the proposed wells in this application. Correct?

A. That's correct.

Q. Paragraph 29 addresses interests that Longfellow has. I understand that Longfellow has a preliminary title opinion, and you indicate here that Longfellow has approximately 46.45 percent interest and that Spur has approximately 40.21 percent interest.

How long has Longfellow -- turning to your paragraph 29, how long has Longfellow worked to acquire it's 47 percent interest in these wells?

A. Dating back to December of 2019 we started working on acquisitions of those. Our first acquisition

did take place in December of 2019 all they way up to 5-1, and we do have current acquisitions in progress as we speak.

Q. When did Longfellow first put out its Well Proposals?

A. 12-1 is actually the day they went out.

Q. And it sent out additional Well Proposals to newly discovered working interests; is that correct?

A. That is correct.

Q. And that was on January 5th?

A. Yes, ma'am.

Q. Then subsequently filed the instant application on January 11, 2021?

A. That is correct.

MS. SHAHEEN: Thank you. With that I'll pass the witness for cross examination.

HEARING EXAMINER BRANCARD: Thank you. Mr. Rankin, are you ready?

MR. RANKIN: Yes. Thank you very much, Mr. Examiner.

Good afternoon, Mr. Reynolds.

HEARING EXAMINER BRANCARD: Please keep your questions focused on the direct testimony and we'll move this along. Thank you.

MR. RANKIN: Mr. Hearing Examiner, may I ask

for permission to share my screen? I think It might be helpful for everybody involved if I can direct Mr. Reynolds' attention to certain parts of his testimony exhibits that I want to be asking him about.

HEARING EXAMINER BRANCARD: I believe we can do that. Marlene?

MR. RANKIN: Thank you, I think I have it now. Let's see. All right.

CROSS-EXAMINATION

BY MR. RANKIN:

Q. Mr. Reynolds, good afternoon. How are you today?

A. I'm good. How are you?

Q. I'm good. I would like to start off by asking you to direct your attention -- you probably have a hard copy in front of you here, but if you would direct your attention to what has been marked as Exhibit A-4 in your packet, which I think -- uh, I think the first page is actually intended to be --

A. The Contract Area?

Q. Yeah, where it says "Contract Area." Do you agree?

A. Yes, sir.

Q. Are you able to see on your screen that I'm sharing my screen with you?

A. Yes, sir.

Q. I think I've got that page up here, and I can scroll down.

Do you agree that is the first page of that exhibit?

A. Yes, sir.

Q. So now -- uh, you identify on this last page of this exhibit -- and I'll go down to that next page here -- that there are five separate oil and gas leases that comprise the proposed 480-acre spacing unit. Do you agree?

A. Yes, sir.

Q. Each of those five leases you identify as having a separate lessee, a separate owner/lessee. Correct?

A. Yes, sir.

Q. So there are actually five separately owned tracts that comprise the 480-acre spacing unit that you are proposing here. Correct?

A. That is correct.

Q. Each one is separately owned.

A. That is correct. The --

(Note: Reporter inquiry.)

HEARING EXAMINER BRANCARD: Would you repeat what you said.

A. I'm saying the lessee of record for State leases will be separate from the actual working interest owners or contractual rights owners. The lessee of record in New Mexico is -- I think it's up to two, which if you have two would be owned as joint tenants of the lessees of record which can execute leases.

Q. So -- I'm sorry. Go ahead. I didn't mean to interrupt.

A. Under a working interest standpoint this interest will not be specific to each lease due to contractual rights.

Q. So there may be different working interest owners first associated under each of these various separately owned leases. Correct?

A. Not in this circumstance.

Q. So if I turn to your --

A. Except for the northwest quarter.

Excuse me. I didn't mean to interrupt you. I apologize.

Q. So there may be separately owned owners -- and I'm talking about, Mr. Reynolds, here to be perfectly clear. Okay?

A. All right.

Q. I'm talking about the owners in the mineral estate in those tracts. I'm not talking about

contractual interest, I'm talking about separately owned owners of the mineral estate in those tracts, not contract interests. You understand?

A. Well, I mean the tract rights become the working interest once an operating agreement is established. That is how the well is paid out.

Once you establish operations, as soon as you drill a well or sign a JOA, any leases or lands within the JOA become subject to whatever well is drilled.

Q. So I understand there is different contractual interests that may affect the working interests in each of those tracts. I understand that.

A. But --

Q. What I'm asking you is about the mineral ownership in each of these tracts that you identify within the 480-acre spacing unit in the mineral interests estate.

A. The leasehold becomes established when the contractual rights happen, when the JOA --

Q. So let me just switch back, then, to your Exhibit A-2. Okay?

A. Okay.

Q. Which I believe is this exhibit here that shows that there are three tracts comprising this

480-acre spacing unit. Correct?

A. That is correct.

Q. And I understand that there are actually five separate lease tracts that comprise the 480-acre spacing unit, but you don't depict those on this exhibit, correct?

A. Due to the operating agreement, the allocation between the operating agreement -- since it covers, technically it covers the north half of Section 14.17.28, well once that is established, the lease is established within there, it is allocated equally across each lease. So if a tract is the northeast quarter, if there are three leases within the northeast quarter, it will be allocated equally across each lease. So if I own 6 percent, I own 6 percent of Lease 1, which was going to be the northeast/northeast of 14; tract 2 which is the northwest/northeast of Section 14; and then the east half -- or south half of the northeast quarter, that would be the equal interest, too.

So equal across each lease.

Q. Sure. Under that JOA, under the contract that those parties have agreed to as to that acreage, correct?

A. That is correct. The JOA --

Q. But you don't -- sorry.

A. -- compounds the leasehold working interest.

Q. So but you don't show how -- you're not showing the separate lease tracts in your exhibit. Correct?

A. Well, I mean it's beside the point, because well costs are established through the JOA.

Q. Not through a Pooling Order?

A. Well, the Pooling Order is now all the tracts. Anything that is subject to the JOA, all that contractual interest becomes part of the new pooling. Whoever is left out that we were not able to acquire, they can be pooled or acquired or nonconsent.

Q. Okay. I think I understand your point of view.

So the reason you didn't include in your exhibit here each mineral estate owner on a tract basis, is because you understand the JOA, the contractual agreement, whatever it may be, has modified the working interest percentages in that tract.

A. Correct. I mean, if you want to be technical the mineral owner is the State of New Mexico.

Q. Well, there are different -- you agree with me there's different types of owners. There's the underlying mineral estate owner, and then the ownership may be parsed out to lessees, overrides, or operating

rights, among other examples. Correct?

A. Well, I mean in this circumstance if a state lease the state is the mineral owner.

Q. I don't think we need to get into, quibble over the legal definitions of mineral owner.

So then I just want to make sure I understand the basis for your exhibit here, and as I understand it, you did not identify the individual owners in each lease tract that comprise the 480-acre spacing unit, because you understand the contractual JOA as to those parties has modified the working interest percentages as to those tracts.

A. Based on the costs of the well, everything is allocated based on the contractual interest.

Q. Okay.

A. Those are the new working interest owners.

As my Exhibit A-4 will show you the leases that are subject to the horizontal spacing unit. It doesn't necessarily mean that there needs to be lease specific, because there is a JOA. It goes across the board equally against each tract and each lease.

Take-offs is the main key here.

Q. Are you generally familiar with the New Mexico pooling statute?

A. I can't say I'm an expert on this, no.

MS. SHAHEEN: I'm going to object to the extent that you're asking Mr. Reynolds to testify about legal issues.

MR. RANKIN: Sure. I understand. I appreciate that, Ms. Shaheen, and I don't intend Mr. Reynolds to opine on any legal issues at all. I want to understand generally -- he's been qualified as an expert in petroleum land matters in New Mexico, he has testified about the nature of these interests and the requirements to pool, and I want to know if he is generally familiar with the New Mexico Pooling Statute.

A. I mean, that's a -- yes, I am but that's a very broad question.

Q. Sure. And you're familiar with the application that Longfellow filed in this case, correct?

A. I became land manager back in April, so anything prior to April I worked in -- I worked with Ryan Culpepper, but more on a helping-out standpoint. I would do the title, run title, figure out who the owners are. I was the main person running title on this stuff.

Q. Okay. So have you actually looked at and reviewed the pooling application that was filed?

A. Yes.

Q. And what is it that -- do you know what it is that Longfellow is requesting here, what kind of Order

they are requesting?

A. You play the lottery.

Q. Well, let me -- I guess I'll direct you to it and just see if I can understand what you make of it.

This is a copy of the application that was filed in this case. I believe it's -- I'm not sure if it's marked as an exhibit or not, but it's in the exhibit packet. Maybe it's behind Tab 2.

You see the copy of the application on your screen that I have got up in front of you?

A. Yes, sir.

Q. Do you see how it says here that Longfellow filed the application with the Oil Conservation Division pursuant to the provisions of the statute that's cited, it cites, for an Order pooling all mineral interests in the Yeso formation in a standard 480-acre, more or less, horizontal spacing unit.

Do you see that?

A. The State of New Mexico is part of this.

Q. Okay. I guess my question to you, though, is: You see where it's requesting an Order pooling mineral interests in the 480-acre tracts. What is your understanding of what that means in terms of the mineral interests that are being pooled?

A. Leasehold working interest -- it's -- we got

to be specifid here. Pay costs is established through the working interest. So when the contractual rights are part of the JOA -- the JOA established the contractual rights, which becomes the leasehold working interest now.

The State of New Mexico is the mineral owner who will acquire a royalty interest under the lease with, say, the lessee -- or the lessor, excuse me.

Once they acquire that interest, and then they jump into an agreement with other parties within the unit, that now establishes all the leasehold working interest owners under the JOA which will contribute to well costs and pay costs out by distribution of revenue, which is all based on the contractual rights that is now the leasehold working interest under the JOA.

It is allocated equally across each tract. Of the JOA. Pardon me. Sorry. Whatever lands were subject to the JOA that now becomes the leasehold working interest.

Q. Okay. All right. I think I have an understanding, Mr. Reynolds, of your position and view of the effect of the JOA on the mineral interest owners within this tract of the proposed spacing unit. That's what I am seeking to understand, so I appreciate your explanation of your understanding of the effect of those

instruments on the working interests and mineral estates within the tract.

Now, in your -- let me direct you back to A-4. I believe this is a list of -- let me see if I can get them up quickly.

A. The contract area?

Q. Yeah.

A. Yeah.

Q. So in this list of parties -- this list here within the unit area are the parties that you're seeking to pool, correct, to force pool?

A. Yes. And I would note -- I would like to point out before we move forward that there is a typo, and I apologize, with MEC Petroleum Corp, which I had understood is a duplicate. MEC Petroleum Corp., that should actually be Mark Wilson Family Partnership.

Q. Okay. The one I highlighted here?

A. Yes, sir. Sorry.

Q. It's okay. While we're on that topic, can you identify for me the parties, or the interests in this list who are in that list solely because of the contractual right.

A. Solely because of a contractual right?

Q. Yeah.

A. That would -- I mean all of those are

contractual rights now, because it's a JOA. Like, on the northeast quarter parties.

But since this is this now, it's contractual rights everybody now has contractual rights.

Q. Who in this list of interest owners do not own an actual interest in the mineral estate within the 480-acre tract?

A. Well, there's the State of New Mexico, who owns all the state-leased minerals, and then whoever owns the fee lands, whoever that party is that executes the lease, is the mineral owner, depending on how the title review goes.

Q. So you reviewed this title. I don't want to belabor the point and I can just, you know, have our witness testify, but who among these interest owners would be excluded from this list but for the JOA contractual agreements that you have recited to me are in existence?

A. All parties are working interest owners now.

Q. Okay. I'll leave it there.

Now, there are -- you have not identified any overriding royalty interest owners that you are seeking to pool; is that correct?

A. That's incorrect. We mentioned in our pooling

application we had the overriding royalty interest owners.

Q. Okay. Who are they and where are they are in your exhibits?

A. That would be on the pooling application.

MS. SHAHEEN: If I may be of some help here, directing you to the Notice Letter, which is at Exhibit A-9.

MR. RANKIN: Okay.

Q. So you're seeking to pool these additional interest owners as overrides that are listed on Exhibit A to Exhibit A-9; is that correct?

A. Could you repeat your question one more time? I apologize, I was trying to --

Q. It's okay. Longfellow is seeking to pool the overriding royalty interest owners identified in Exhibit A to the Notice Letters, which is at Exhibit A-9.

A. That is correct.

Q. But you didn't identify them in your ownership breakdown in Exhibit A-3 -- or A-4.

A. I was under the interpretation that we were providing the leasehold owners who would be pooled and subject to well costs.

Q. But you don't have -- you don't know whether or not you have authority to pool those overrides, so

you're seeking to pool those overrides? I'm just trying to understand whether they are being pooled or not.

A. This exhibit that you're showing, you're showing the parties subject to well costs.

Q. Okay. But I guess my question is: Are you seeking to also pool those overrides, as well?

A. Yes.

Q. Okay. But you did not include them on your -- the list of parties that you're seeking to pool in your Exhibit A-4. Correct?

A. A-4 established the contract area and the leasehold working interest owners subject to well costs.

Q. I guess I'm asking you: You didn't include the overrides in that list, though, correct?

A. Overrides do not pay working interest.

Q. I know. That's not my question.

It's okay. I'll take it is a nonresponsive as the answer to my question.

Now I guess I want to ask you: Were you the main contact handling negotiations with Spur or was someone else?

A. Someone else was.

Q. So did you create the Chronology of Contacts in Exhibit A-5?

A. No, not -- it was my predecessor and I. Mike Culpepper.

Q. So if you would, Mr. Reynolds, do you have that in front of you? Can you turn to Exhibit A-5.

A. Yes.

Q. Let me know when you're there.

A. I'm here, sir.

Q. The top entry I think is for communications with SEC Permian. Do you see that?

A. Yes, sir.

Q. There's no dates on any of those contacts, so I don't know when, over what period of time you endeavored to reach an agreement with Permian. Would you agree?

A. We never established an agreement with Spur.

Q. I'm asking about the dates.

Do you agree you never included any dates here over which time you attempted to make an agreement that reached out to discuss with Spur?

A. Yes, sir.

Q. Okay. And in the notes where it says -- so I don't know, you know, how many times and how much effort you put into reaching an agreement, right? I can't tell that from this.

A. I understand.

Q. Yeah. Okay. So now under the Notes section you see where it says "not interested in assigning, most likely will sign JOA and participate"? Am I reading that correctly?

A. That is correct, but due to the current circumstances, that should be amended, as I touched base with Sharon, this most likely should have stated that Spur, if Longfellow was designated operator, would elect under the Pooling Order.

Q. So did you make that entry into the Note section or did your predecessor?

A. It was previously listed. I should have updated it, given the current circumstances when no trade could be negotiated.

Q. I just wanted to make sure I understand where that came from and whether or not you still agree with that entry.

On the ConocoPhillips Notes entry, which is several down, there is an entry there that says, and I'll read it to you, quote, "... pulled from Longfellow multitract offer due to competing offer."

What does that mean?

A. We sent ConocoPhillips a multitract offer with several of the tracts located within that offer within our, you know, obvious future well development drilling

program that were part of this spacing unit development. And specifically, you know, we tried to negotiate this since March, and they were very aware we were going to drill this and a few other tracts on there.

Well, you know, after they asked us to -- first it was, "Could you please send us..." -- you know, "We have a competing offer. Could you please send us a revised offer."

So given the circumstances, we did. Well, then, the business development person with ConocoPhillips asked me to evaluate it on drilling spike -- evaluation based on the drilling spacing unit. So then we put a value on each of the tracts.

Once that happened I was informed to pull the Hendrix ABX and another tract based on there was a better offer, competing offer.

And then once we sent this back we revised the offer to show now a more-standard offer since we had more value on certain tracts, which were two tracts that were actually pooled with us.

Then once we sent that back, we were informed, "Oh, we need to also pull another tract which was very crucial in this acquisition," and then it just became re-evaluate again. But it was kind of a last-second pull from our acquisition or our offer.

Q. So I just want to make sure I understand, because there was a lot of -- I heard a bit of a narrative there.

The gist I think I understood you to say was that ConocoPhillips instructed you to pull the acreage from this proposed spacing unit from any deal of ConocoPhillips. Is that what I understood you to say?

MS. SHAHEEN: Objection, form.

MR. RANKIN: Well, Ms. Shaheen, I just want to understand Mr. Reynold's question -- he -- he appears to have understood my question to him. Do you want to tell me what your objection is so I can correctly rephrase it?

MS. SHAHEEN: I thought it unclear, so that's why I objected to form. I -- I'll probably withdraw the objection. I just wasn't clear what you were asking.

MR. RANKIN: All right.

Q. Mr. Reynolds, let me try to rephrase so it's clear.

I understood you to say in your response to me that by -- that this note about negotiations with ConocoPhillips was that ConocoPhillips had instructed you to withdraw the proposed deal regarding the 480-acre spacing unit that is the subject of this case. Is that correct?

A. ConocoPhillips --

MS. SHAHEEN: Objection. That misstates the testimony.

MR. RANKIN: I'm not restating his testimony, I'm asking him a question. I'm asking him to confirm that that's correct.

A. We were unable to make a deal with ConocoPhillips.

Q. Very good. But did ConocoPhillips instruct you to withdraw the acreage from this tract? Is that correct? From the deal.

A. We had the --

MS. SHAHEEN: Objection to form, then.

THE WITNESS: We had --

(Note: Reporter inquiry.)

MS. SHAHEEN: As long as you have my objection, I'm good.

MR. RANKIN: I believe I have my question answered, so I'll move on.

(Note: Reporter inquiry.)

Q. Mr. Reynolds, I think you -- I guess, try to restate your answer to my question.

A. We couldn't make a deal with ConocoPhillips.

Q. Okay. On the C-102s that are in your Exhibit A-6, I just want to ask you a couple of questions.

You testified that you provided updated -- you prepared updated AFEs dated June 1, 2021, for each of the proposed wells. Correct?

A. I was the one that sent out the AFEs to the parties on the Well Proposals. On the new AFEs, I did not create these, no. I apologize for (inaudible).

Q. Okay. Let me step back.

You were not involved at all in the preparation of these updated AFEs dated June 1, 2021.

A. That is correct. I was not involved.

Q. Do you know whether they were sent out to the parties?

A. I am not familiar.

Q. Have you looked at the surface locations that are provided in the AFEs dated 6-1-2020?

A. I have not looked at these yet, no.

Q. Are you aware whether they match the C-102s that are in your exhibit?

A. Based on the evaluation of the C-102s -- let's see.

MS. SHAHEEN: Actually I think this is a question better directed to Mr. Mitchell, our engineering expert.

MR. RANKIN: Well, that's okay. It's Mr. Reynolds' exhibits so I'm just asking him about his

own exhibit. I can also ask Mr. Mitchell, as well.

MS. SHAHEEN: Thank you.

Q. If you don't know, Mr. Mitchell, just tell me you don't know.

A. I do not know.

Q. Okay. In your paragraph 28 of your affidavit you state that a Longfellow has entered into agreements with the surface owner in the north half of Section 14 to construct well pads.

Who is the surface owner?

A. Concho.

Q. What kind of agreement?

A. I did not author the agreement when that was established, so I cannot give you a correct answer.

Q. You understand that gives Longfellow the right to drill -- to locate two well pads on that location?

A. That is correct.

Q. Are you aware Spur also has an agreement with the surface owner to construct well pads?

A. I am not aware of that.

MR. RANKIN: I guess, Mr. Reynolds, at this point I have no further questions.

HEARING EXAMINER BRANCARD: Thank you.

Mr. Rodriguez, any questions?

MR. RODRIGUEZ: No questions, Mr. Examiner.

HEARING EXAMINER BRANCARD: Mr. Lowe, any questions?

EXAMINER LOWE: I'm not sure if you could answer this question, as well, too.

CROSS-EXAMINATION

BY EXAMINER LOWE:

Q. You have how many wells going on here in this location?

A. Five.

Q. Five wells? Of those wells, which of the wells is the -- I don't know, what would you say, the primary well?

A. The primary well? The defining well?

Q. The defining well. That's -- yes.

A. The 3.

Q. The No. 3?

A. Yes, sir.

Q. Okay. And --

A. Or 3H. Excuse me. Sorry about that.

EXAMINER LOWE: That's fine. That's all the questions I have for now. Thank you.

HEARING EXAMINER BRANCARD: Thank you.

Mr. Garcia.

EXAMINER GARCIA: I have a few questions.

CROSS-EXAMINATION

BY EXAMINER GARCIA:

Q. How are you, Mr. Reynolds?

A. I'm well. How are you?

Q. Sorry. I'm trying to get back to...

So I guess at the beginning of -- all these exhibits were put together either by you were under your supervision?

A. Can you repeat that? I could barely hear you.

Q. Sorry. Were all these exhibits put together by you or under your supervision?

A. Are you talking about actually putting it together for this? Or like to send in? Or like actually drafting these, like the applications and stuff like that?

Q. Uh, basically -- Sorry.

A. Basically stuff like that. The AFEs, the Well Proposals.

Q. You drafted like the Exhibit A-2, A-3, et cetera?

A. Yeah. Yes.

Q. I'm assuming sending in like --

(Note: Reporter inquiry re sound quality.)

MR. GARCIA: I'm sorry. My exhibits are on the right screen.

Q. Turn to Exhibit 2-A. It has about 10 operators on it. If there wasn't a JOA or a contract agreement, would there still be those same operators in this area?

A. The same operators?

Q. Or the interest owners. Sorry.

A. I mean, it's -- besides the working interest is based on the contractual rights -- for the JOA, excuse me, which establishes contractual rights, which becomes the leasehold working interest.

Q. But if there wasn't a JOA, all of these people own interests in this section.

A. It's beside the point.

Q. Okay.

A. I don't know.

EXAMINER GARCIA: So I guess I'll ask, you know, Bill, if it's acceptable, can we get an exhibit like A-2 which has all five leases broken down by their owners?

THE WITNESS: It would be equally across each lease. Whoever the owners are in this that's shown on A-2, they own that exact percentage in each lease.

Q. Without the JOA. Even without that JOA?

A. The JOA establishes the working --

Q. Okay. I'm just looking at my notes.

MS. SHAHEEN: I'll just, uh...

Sorry, I apologize for interrupting. Mr. Garcia, I'll make sure you get what you're asking for.

EXAMINER GARCIA: Okay. It would help in comparison of the cases.

THE WITNESS: We have that.

MS. SHAHEEN: I understand. We will get that to you.

EXAMINER GARCIA: All right. Thank you.

Q. Pointing to Exhibit A-5, where it has the description of the contracts, under ConocoPhillips it says, "Multiple offers made."

Were multiple offers made to Spur or SEP? It doesn't say that. It just says "not interested."

Were there trade offers, uh -- I guess what were the parameters on that. Longfellow offered a trade, did they?

A. Can you repeat? I can barely hear. I'm sorry.

Q. I'm sorry. My mic does not like where it is.

A. Go ahead and --

HEARING EXAMINER BRANCARD: We can't hear you at all, Mr. Garcia.

THE WITNESS: Okay. I can see you now.

Yeah, I still -- I think your mic -- is your mic muted?

MS. SHAHEEN: I'm sorry to interrupt. I'll just jump in here and say I think that I can help out with some redirect of Mr. Reynolds, and also with Mr. Mitchell's testimony I'll be able to clarify what I believe you're seeking, Mr. Garcia.

THE WITNESS: I couldn't hear what he was saying. I apologize.

HEARING EXAMINER BRANCARD: Okay. Mr. Garcia's muted, so I assume he's done.

CROSS-EXAMINATION

BY HEARING EXAMINER BRANCARD:

Q. Just to quickly summarize, Mr. Reynolds, Exhibit A-4, which is your lists, it says Unit Interest to the Parties, Interest Owners, just to summarize, interest owners means working interest owners, correct?

A. Yes, sir.

Q. And so when we have large percentages here for Longfellow and for Spur, that's the amount of working interest that is committed to those companies; is that correct?

A. Yes, sir. Yes, sir.

Q. And they're committed either because they have

the leasehold interest or somebody has signed an agreement with them, correct?

A. That is correct. Every interest that is shown in our interest is actually closed and filed of record.

HEARING EXAMINER BRANCARD: Okay. Thank you.

Ms. Shaheen, are you going to redirect?

MS. SHAHEEN: Just briefly.

REDIRECT EXAMINATION

BY MS. SHAHEEN:

Q. First turning to your Exhibit A-5, Mr. Reynolds, this is your Chronology of Contact?

A. Yes, ma'am.

Q. And you were asked some questions about the notes pertaining to Spur SEP Permian. Do you recall that.

A. Yes.

Q. Have you reviewed the affidavit of Mr. Eschete submitted on behalf of Spur?

A. Yes.

Q. And do you recall that he had a long list of communications between Longfellow and Spur about the negotiations, --

A. Yes.

Q. -- I believe.

And in your review of that did his representation of those communications -- what was your view of his representation of those communications?

A. With respect to communication with Spur, uhm, I didn't agree with the characterization of the communication but I do agree that communications took place.

Q. And is the -- you testified previously that your predecessor Mr. Culpepper had communications with Spur. Correct?

A. That is correct.

Q. Is it your understanding that Mr. Mitchell also had some communications with Spur?

A. That is correct.

Q. And he will be testifying about those communications, as well; is that right?

A. That is correct.

MS. SHAHEEN: That's it for me.

HEARING EXAMINER BRANCARD: Thank you.

I don't know that we need to recall Mr. Reynolds at all, but it might be nice if he were still around and available.

MS. SHAHEEN: Yes, Mr. Brancard, Mr. Examiner, I would like to be able to recall Mr. Reynolds

for rebuttal testimony after Spur's testimony.

HEARING EXAMINER BRANCARD: Thank you.

Ms. Macfarlane, do we need a break?

(Note: In recess from 2:17 p.m. to 2:32 p.m.)

HEARING EXAMINER BRANCARD: All right. Are the parties here?

Ms. Shaheen, Mr. Rankin, Mr. Rodriguez?

MS. SHAHEEN: I'm back.

MR. RODRIGUEZ: I'm here.

HEARING EXAMINER BRANCARD: Okay. Ms. Shaheen, I think we are ready for your next witness.

MS. SHAHEEN: Yes, I'd like to call geologist Jennifer Eker. I hope I'm pronouncing that correctly, Jennifer.

HEARING EXAMINER BRANCARD: Okay. Ms. Shaheen.

JENNIFER EKER,

having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. SHAHEEN:

Q. Ms. Eker, could you please state your full name for the record.

A. Yes. It is Jennifer Eker.

Q. And you're appearing as the petroleum

geologist for Longfellow; is that correct?

A. That is correct.

Q. Have you previously testified before the Division and had your credentials accepted as a matter of record?

A. I have.

Q. And you have before you Exhibit B, your Direct Testimony. Do you have that before you?

A. I do.

Q. And the related exhibit?

A. I do.

Q. And do you adopt your written testimony as your testimony today in this matter?

A. Yes.

MS. SHAHEEN: Okay. We're going to walk through it but I ask that the testimony and related exhibits for Ms. Eker and for Mr. Reynolds are admitted into the record.

HEARING EXAMINER BRANCARD: Are there any objections?

MR. RANKIN: No objections.

HEARING EXAMINER BRANCARD: So admitted.

Q. Turning to your Exhibit B-1, you have the two, B-1a and B-1b. Can you please take a look at these and describe them for the record.

A. Yes. B-1a is just a regional view of where we are located. The Hendrix ABX HSU is located in Eddy County, New Mexico in the Northwest Shelf.

In early Permian and the mid Permian this was a shallow carbonate ramp where the Yeso Formation was deposited, and that's the formation that we're targeting, particularly the Paddock and Blinebry members. And then --

Sorry. Go ahead.

Q. And I was just going to say that's indicated on Exhibit B-1b, correct?

A. Yes. Our targeted zones are the Paddock and the Blinebry.

Q. And turning to your Exhibit B-2, can you tell us about that one.

A. Sure. The red outline is the Hendrix ABX HSU. I have a structure map on here which is the Paddock structure. This basically just shows where the horizontal spacing unit is. It's in Section 14 and Section 13 of 17 South, 28 East.

The structure map gently dips to the east, and I do not see any faulting or stratigraphic or structural impediments that will interfere with horizontal development.

Q. I notice here Section 14 kind of leans down to

the left. Do you see that?

A. Yes.

Q. And do you know why that's the case here in this plat?

A. Yes. That is an irregular-shaped section, and that's due to the curvature of the earth. The earth not being square, that's where the sections and the land grid cannot be perfectly square.

Q. Moving on to your Exhibit B-3, I believe.

A. Yes. This is just a location map showing where our proposed wells are. We are proposing five wells, the Hendrix State Com 1314 ABX 1 through 5.

We have them oriented west to east. There's not a preferred drilling direction based on max stress in this area, but the majority of wells are drilled from west to east, so that fits our lease boundaries. It also fits with the wells that we've drilled just to the south here out of the HSU, those five wells, the Hendrix 13 CD wells that we drilled earlier this year.

Q. So those aren't labeled but I see some lines there just below in the south half of Section 13. Are those the Hendrix CD wells that you are referring to?

A. Yes. I'm sorry I didn't state that clearly.

The other thing I wanted to point out on

this map are the circles at the end of the proposed well bores. The red circles indicate we are going to be drilling those wells in the Paddock Formation, and then the blue circles indicate those would be Upper Blinebry wells.

Q. Thank you. Now turning to your Exhibit B-4, Paddock Structure.

I'm sorry, that was B-2.

A. Yes. B-4 is a type log with our target intervals marked, the Paddock and the Blinebry.

This log here, on the left side you have your gamma ray, and then next as you move to the right you have your depth track, and then your resistivity curves and then your neutron density curves. I use all of these curves when I'm picking the Paddock and the Blinebry tops in the surrounding areas.

This well is located in the south half of Section 13.

Q. I'm going to back up here to Exhibit B-3, because I realize now I circulated last night to the parties an amended Exhibit B-3 and I need to submit that to the Division. But could you just briefly explain for the record the difference between the original Exhibit B-3 and the amended Exhibit B-3.

A. There's not a huge difference. If you look at

some of the well symbols, particularly in the southern half of Section 12, you'll see small circles, which would normally indicate a location. That symbol is incorrect, and I have corrected it and submitted a new exhibit.

Q. Okay. And, for the record, we will provide that to the Division after the hearing.

Moving on to your Exhibit B -- I believe we are on B-5 now.

A. That's correct. This is a similar map as you saw on two exhibits ago, except it does have a cross section line here, a three-well cross section that runs west to east, and it is labeled A to A prime.

Q. Turning now to Exhibit B-6 -- oh, excuse me.

Here again on Exhibit B-5, we do have an amended Exhibit B-5. Can you explain to us for the record the difference between the original Exhibit B-5 and the amended Exhibit B-5.

A. The same situation as the last amendment.

Q. Turning now to Exhibit B-6; I believe this is a structural cross section.

A. That is correct. This is a three-well cross section running from west to east. I selected these wells because they were good quality. And if you look at each particular well, the log on the left is a gamma

ray and resistivity, and then as you move right past the depth track this would be your neutron density log.

This cross section shows the top of the Glorieta in black, the Paddock top in red and the Blinebry top in blue, and it shows that the rocks are continuous across the horizontal spacing unit, and the thickness stays the same. We do not see any faults or any other impediments that would create a problem with development.

Q. And finally I believe we have Exhibit B-7.

A. Yes. This is as gunbarrel diagram, and it shows our landing zones for the wells. On the right you have the type log that was in one of the earlier exhibits and then on left side the gunbarrel diagram that shows the pattern of our wells.

So the red circles indicate the No. 1, the 3, and the No. 5, well which we intend to target in the Paddock zone; and the blue circles indicate the two wells, the 2 and the 4, which we plan on targeting the Blinebry; and the yellow highlights very specific zone in those members in reference to that type log.

Q. Turning back to your affidavit now, I am looking at paragraphs 12 and 13. Here you talk about the measured depths and the two vertical depths. Could you elaborate for the hearing examiners.

A. For the Paddock wells, which are the No. 1, the No. 3 and the No. 5, we plan to drill those to the true vertical depth of 3900 feet, and the measured depth is 11,400.

For the Blinebry wells, the No. 2 and the No. 4, the planned true vertical department is 4300 feet, whereas the measured depth is 11,800 feet.

Q. And on paragraph 14 you set forth your conclusions based on your geologic study of the area. Could you summarize those, please.

A. Sure. The horizontal spacing and proration units are justified from a geologic standpoint, and that's because we do not see any structural impediments or faulting that would interfere with development. Each quarter/quarter section in the horizontal spacing unit will contribute more or less equally, and that's exhibited from the cross section that I showed earlier.

And then we are orienting the wells from west to east because there is no known and generally accepted drilling orientation based on the max stress direction. Most of the wells in this area have been drilled west to east, and we plan to drill them in that direction, to keep with that pattern.

MS. SHAHEEN: Thank you, Ms. Eker. I have no

further questions of you at this time and I pass the witness.

HEARING EXAMINER BRANCARD: Thank you.

Mr. Rankin.

MR. RANKIN: Thank you very much.

CROSS-EXAMINATION

BY MR. RANKIN:

Q. Good morning -- good afternoon, Ms. Eker. How are you today?

A. I'm great. How are you?

Q. I'm good. Let me know if you can't hear me. This virtual platform can sometimes be difficult, as we have already experienced. Just let me know if my questions are garbled or if I have break up for you to understand what I'm asking. Okay?

A. Very good. Thank you.

Q. Your resume you provided with the affidavit, that's complete and accurate and up to date, correct?

A. Correct.

Q. I want to review you with real quick your background experience.

You started as a geological technician for Longfellow Oklahoma in 2007?

A. Yes.

Q. And at that time you didn't do any work in New

Mexico during that period?

A. That's correct.

Q. And you worked as a geologist for Longfellow starting in August, 2010, through April, 2020, correct?

A. That's correct.

Q. And during that time did you do any work in New Mexico during that period?

A. Very little. We were working in that area, and so I had, uhm, from more of a broad review of the area, but I was not working anything detailed.

Q. When you say "that area," what area are you talking about?

A. Sorry. New Mexico.

Q. That broad area that you were looking at, did it involve the specific acreage at issue in this case?

A. I do not know the answer to that.

Q. Okay. Then in your resume you have got starting in April, 2021, to present your job is with Longfellow working on projects in the proposed area. Correct?

A. Yes.

Q. And then you did reservoir mapping and petrophysical evaluation of the Yeso Formation and surrounding formations, correct?

A. Correct.

Q. Prior to that time had you worked on any specific projects or had any experience with the Yeso Formation in New Mexico?

A. No.

Q. Now, on the Middle Blinebry, I just want to ask you some questions about that.

You state in your affidavit that in your opinion granting Longfellow's application will prevent waste. Right?

A. Yes.

Q. But you guys are not targeting the Middle -- what Mr. Mitchell has -- are you familiar with Mr. Mitchell's testimony?

A. I am.

Q. And you're familiar with his reference to what he terms the Middle Blinebry?

A. Yes.

Q. And Longfellow is not targeting that bench in its proposal, correct?

A. Correct at this point.

Q. Okay. Is that up for evaluation at a later time?

A. We will plan to develop those areas after we study the area a little bit more, but I would like to

defer those questions to David Mitchell as him and the engineering team have worked on the spacing and coming up with a simulated rock volume and drainage and how they want to develop this in the best way.

Q. Okay. That's fair. I do want to ask you some questions, though, you know, about your evaluation of the Middle Blinebry, because I want to understand a little bit, you know, whether or not your statement about waste and how that relates to your application. Okay?

A. (Note: No response.)

Q. As the geologist.

Now, you assisted Mr. Mitchell in identifying the interval tops for the benches within the Blinebry that he identifies in his testimony and exhibits?

A. I did not, actually. It was a previous geologist working the area.

Q. Okay. Do any of Longfellow's existing vertical wells that it operates, are any of them completed in the Middle Blinebry?

A. I believe they are in the deeper part of the Blinebry.

Q. Are any of Longfellow's horizontal wells completed in what Mr. Mitchell identifies as the Middle

Blinebry?

A. No.

Q. In Mr. Mitchell's exhibits he identifies the Middle Blinebry as prospective only. Do you recall that in his exhibits and testimony?

A. I'm sorry, I don't remember.

Q. Okay. To this point have you done anything yourself to evaluate the prospectivity of the Middle Blinebry in this area?

A. I've done little.

Q. Okay. So you couldn't offer an opinion one way or the other on the viability or the prospectivity of the Middle Blinebry in this specific acreage?

A. That is correct.

Q. Are you aware of any studies, other than the analysis prepared by Mr. Mitchell in his exhibits, that would were conducted by Longfellow, prospectivity in the Middle Blinebry in this area?

A. I believe that we ran petrophysical logs through the entire Yeso, or at least in the Paddock and the Blinebry.

Q. Logs on what wells? Generally.

A. I mean a handful of wells over, you know, a larger area. But I believe there is one in Section 13 in the southern half.

Q. Is that one of the vertical or horizontal wells?

A. Vertical.

Q. So to your knowledge does Longfellow have plans to evaluate the Middle Blinebry in this proposed horizontal spacing unit?

A. Yes.

Q. Okay. So at this point you don't know -- there's no concrete plans to drill Middle Blinebry wells. Longfellow doesn't have any concrete plans to drill Middle Blinebry wells at this point; is that correct?

A. That's correct.

Q. But it's something that Longfellow is going to evaluate.

A. That is correct.

Q. Now, are you aware generally, not just Longfellow wells here, but generally within the Yeso trends of any horizontal wells that are completed in the Middle Blinebry as Longfellow defines it?

A. I am not aware of any.

Q. Okay. Now, just looking -- I'm going to ask -- it looks like I have the authority to do so. I am going to share my screen.

Ms. Eker, can you see my screen now?

A. I can.

Q. You recognize this as your Exhibit B-6, --

A. Yes.

Q. -- which is your -- sorry -- structural cross section across the proposed spacing unit?

A. Yes.

Q. On the Aid State 10 track here it's very difficult to make out, but there are little purple sort of boxes with dots in them. What are those?

A. Those are perforations.

Q. And are there in this cross section, are there perforations within what would be considered the Middle Blinebry in any of these wells here?

A. Yes.

Q. Those are wells that Longfellow operates, correct?

A. That is correct.

Q. Now, are you aware of the production history for the well on the far right tract of this cross section, the Aid State 8? Are you aware of that at all?

A. I am not.

Q. So I want to go back to your statement that Longfellow's application will prevent waste. But it's not planning to, at this point, develop the Middle Blinebry. How is it that Longfellow -- and you've got

established production in the Middle Blinebry in this and offsetting acreage. How is it not wasteful to not target that zone with your plan?

MS. SHAHEEN: Objection. Mistates previous testimony.

MR. RANKIN: I'm sorry, I couldn't understand the objection.

MS. SHAHEEN: You don't understand the objection or you couldn't hear it.

MR. RANKIN: I couldn't hear it.

MS. SHAHEEN: Oh, okay. Objection, form. Misstates the previous testimony.

MR. RANKIN: Okay.

Q. If Longfellow doesn't -- well, I'll just leave that. That's fine. I can go over it with Mr. Mitchell. I have no further questions of the witness. Thank you.

THE WITNESS: Thank you.

HEARING EXAMINER BRANCARD: Thank you.

Mr. Rodriguez, any questions?

MR. RODRIGUEZ: No questions, Mr. Examiner.

HEARING EXAMINER BRANCARD: Mr. Lowe.

CROSS-EXAMINATION

BY EXAMINER LOWE:

Q. My name is Leonard Lowe, and I have got a

question for you, Jennifer. How are you doing?

A. I'm good. How are you?

Q. I'm pretty good. I got a question on your -- the formation, the pool and formation that you're seeking for these wells. Do you know the setbacks for them, for the pools?

A. I do not.

Q. Okay. Were you involved in determining the take points for each of these wells?

A. I was not.

Q. You were not. Would the engineer coming up next be able to answer those questions?

A. Yes.

Q. Okay. I will save those, those questions for them or her.

You indicated that you submitted amended exhibits, correct?

A. That is correct.

Q. And those were Exhibits B-4 and B-5?

A. Uhm, it was actually B-3 and B-5.

Q. B-3 and B-5.

A. Yes.

Q. Were those already submitted?

A. I believe so.

But, Sharon, you might have to speak to

that.

MS. SHAHEEN: Mr. Lowe, I apologize. I have not yet circulated them to the Division. They were circulated to all of the parties prior to today's hearing.

EXAMINER LOWE: Okay. When you submit them are you going to submit the whole entire exhibit package or just that page? How are you going to do that?

MS. SHAHEEN: I'm going to do it however you want me to do it.

EXAMINER LOWE: Whatever makes Marlene happy. I'll say that.

MS. SHAHEEN: I agree with that.

EXAMINER LOWE: That's all I have for now. Thank you.

HEARING EXAMINER BRANCARD: Mr. Garcia.

EXAMINER GARCIA: Can you hear me better, Bill?

HEARING EXAMINER BRANCARD: Yes, I think so.

EXAMINER GARCIA: I have no questions.

HEARING EXAMINER BRANCARD: Good. Now that we can hear you, you have no questions.

EXAMINER GARCIA: Sorry about that earlier. Apologies to Mr. Reynolds.

HEARING EXAMINER BRANCARD: Okay. Ms.

Shaheen, any redirect?

MS. SHAHEEN: I do not have any redirect here.

HEARING EXAMINER BRANCARD: Thank you. I think we are done, then, with Ms. Eker.

MS. SHAHEEN: Thank you, Ms. Eker.

THE WITNESS: Thank you.

HEARING EXAMINER BRANCARD: Your next witness.

MS. SHAHEEN: Yes. Engineer David Mitchell.

THE WITNESS: I guess this was going to happen eventually. How are you? I'm going to get my water before I sit down. Thank you.

MS. SHAHEEN: When you're ready --

THE WITNESS: I am ready.

MS. SHAHEEN: -- the hearing examiner will swear you in.

DAVID MITCHELL,

having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. SHAHEEN:

Q. Mr. Mitchell, could you please state your full name for the record.

A. David Mitchell.

Q. And you're appearing today on behalf of

Longfellow, correct?

A. Correct.

Q. And what is your position with Longfellow?

A. I'm the Vice President of Engineering for Longfellow Energy.

Q. You're a petroleum engineer by trade?

A. By trade I'm actually a mechanical engineer.

Q. Okay. Thank you for clarifying.

And you have not previously testified before the Division, correct?

A. That's correct.

Q. And then in paragraph 3 of your testimony you have given us a summary of your education and experience. Could you briefly provide that information to the Division now.

A. Yes. So I'm originally from Canada. I went to the University of British Columbia. I graduated in 2007. Prior to that I had been working in the oil and gas industry. I worked for Talisman Energy, which is a large Canadian company, in Northern British Columbia, West Central Alberta, Calgary, Pittsburgh, and Houston in my eight or nine years with them, working lots of different projects and plays, predominantly in reservoir engineering, development engineering, and completion engineering roles; also some production engineering, as

well.

I joined Longfellow and our sister company Transatlantic Petroleum in 2013 in Dallas, and I have been managing projects with Longfellow and Transatlantic ever since.

MS. SHAHEEN: In light of Mr. Mitchell's education and experience I'd like to offer his testimony today as an expert in engineering, and ask that his Direct Testimony and his exhibits be admitted into the record.

HEARING EXAMINER BRANCARD: Thank you. Are there any objections?

MR. RANKIN: No objection.

HEARING EXAMINER BRANCARD: Hearing none, the exhibits will be admitted for that purpose and Mr. Mitchell will be qualified as an expert.

MS. SHAHEEN: Thank you.

Q. Mr. Mitchell, turning now to your affidavit, at paragraph 4 you have a number of bullets here, bullet points here where you've made statements supporting the superiority of Longfellow's development plan here, and what I'd like to do is walk through each one of those bullets and have you give us a summary of the information that you've provided in each, and tie it to the exhibit.

I have neglected here to reference the appropriate slide with respect to each bullet, so please bear with me and I'll ask Mr. Mitchell to tie his various bullet points to the various slides in the exhibit, which are behind Tab 8. I believe we have 1 through -- quite a few slides here, 1 through 18.

Q. Yeah. So I'll try to move through these in the order that I've written them in my testimony. And if Mr. Examiner or any of panel needs me to reference which exhibit it reflects, please stop me and let me know.

So firstly we are talking about producing wells in the unit. So it's a 480 nonstandard unit in the sense that it has all standard locations but it is not a perfect rectangle, because of, again, the cartographic grid that Ms. Eker mentioned.

Longfellow offers five producing wells within the unit boundary, four of which are producing from the horizon which we are planning on developing. They are commingled Paddock and Blinebry wells. The four Yeso wells that produce those in the H State 6, 8, 9 and 10, as well as the gas well which also we operate, which produces from the Morrow in the Puma 1.

So being the operator within the section we have the ability to perfectly manage logistics in

protecting these wells prior to and after the completion of the wells, manage production and manage all valuable equipment.

So that is one advantage we have being the operator.

We also own and operate the unit directly to the south of this unit, the five producing Aid State CD wells. So this is also -- both of those statements are presented on my exhibit, page 2, Existing Producing Wells. Those five wells are all onstream as of a few weeks ago. They've been flowing back since roughly the 1st of this month, but they are a 2021 development that kind of kicked off our activity in this area for Longfellow Energy

Q. And I'm going to stop you just for minute, just to clarify. I've tied Slide 1 to your first bullet point. Is that accurate?

A. I'm on paragraph 4, bullet 1 and bullet 2. Yes, that's Slide 2.

Q. So Slide 2 would go with your second bullet?

A. With both the first two bullets, yeah.

Q. Okay. Great.

A. Slide 1 was company history that we added just to tell everybody who we are.

Q. Okay. Great. And moving on to your third

bullet about the infrastructure.

A. So we've -- you know, we've worked in a lot of different projects both domestically in multiple states and internationally, and we believe in owning and operating our own infrastructure wherever possible as the best way to manage operations, reduce waste, and increase our net revenues.

Early on in this project we identified water and the usage of water as a critical pathway item to success in New Mexico. We took the route of building 2 million barrels of retention storage capacity for produced water, as well as a full recycle plant at the front of the facility. This is located roughly 3/4 of a mile south of the unit that we are pooling in this discussion today.

Q. And my review of your slides indicates that slides 3 and 4 relate to bullets 3 and 4. Does that sound right?

A. That sounds right. And we also have in this immediate area, within one mile of the unit we are in discussion over, 17 approved drilling permits, seven approved surface locations we are planning to develop. And if you're looking at slide 3 of my Existing Infrastructure Favorably Located exhibit, that impoundment is really what's called the center of our

development area.

Q. Thank you. Moving on, I believe are we on -- I'm on the next page, one, two, three, four, five bullets down about your surface locations.

A. So the (coughing) -- excuse me, yes.

So we have two surface locations proposed in what we call the Hendrix ABX unit. They are the BX, which is the southern unit, has three horizontal wells, two Paddock, one Upper Blinebry, and on the AX it's one Paddock and one Upper Blinebry. Those five wells we believe could completely develop the unit.

Both locations have been approved by the fee landowner, both have been surveyed, all of the engineering is prepared for applications of drilling permits.

Q. Those surface locations are illustrated on slide 5, correct?

A. Correct.

Q. Moving on to bullet 6, I believe here you opine on Spur's surface location.

A. So this might be a moot point because, we have, in the process of this hearing preparation and exhibits that Spur submitted, Spur has revised their surface location. Actually, they've revised it now for the fourth time. So this is the surface location as was

described prior to seven days ago when exhibits were due. So this is not their current surface location. If it was it's in the middle of a creek in the middle of a flood zone and in a location that would be developable but would create significant cost to construction, because you would have to divert -- when it rains in this area it's not light, it's very, very heavy, so what looks dry most of the year can turn into a raging river. This area is exactly an area like that where they were planning to build this location.

They have moved it out of this area, so again it might be a moot point.

Q. And slide 6 and 7 reflect the original surface locations that were proposed by Spur, correct?

A. Correct.

Q. Moving on to your next bullet point, which I believe is at the top of the next page, I'm guessing this No. 7.

A. So here on page -- I'm sorry. Are we talking about flaring or are we still on surface locations?

Q. Here we're talking about Spur in the Welch 28A unit.

A. Okay. So Longfellow and Spur are in each other's units, and we will likely continue to be so, and these hearings are reflective of when our interests are

going to be close, we will probably have these issues. We are lower in the interest owner about 7 percent, in that neighborhood, and a Spur unit called the Welch 28A, we participated in that unit, and have over the past -- well, at the time of writing these exhibits, it's continued since then -- Spur has flared approximately 65 million cubic feet of gas over a period of 15 days. Now that will be 65 days. They continue to flare as I stand here today. That equates to roughly 3,600 metric tons of CO2, based on the IEA conversions I got off their website. That equates to about $175,000 in lost revenue associated with flaring.

I know environmental and revenue are not connected but that monetary value is important to any development that oil and gas companies engage in.

We have set up our facilities to not flare. Now, there will be some amount of flaring that is inherent in the industry when we commission things, bring things on, but we have vapor recovery units and all our TAGs. We have, uh, obviously gas pipelines prebuilt prior to completions, so this kind of an activity would not happen.

As an example, we currently are commissioning five horizontal wells one south of where -- sorry, a few thousand feet of what we are

talking about today, and over the course of our commissioning we have flared less than about -- I think it works out to less than six million a day in gas, and that is only associated to the fact that DCP, which is the company we sell our gas to, shut down their pipeline because of a compressor malfunction. We had only flared 25 mcf, which is 0.025 million a day, prior to that occurring.

That was a short period of time, and we are currently selling gas again.

So when you talk about flaring equals economic waste, loss recovery and emissions, this is a problem as we see the development.

Q. And with respect to your slides, I believe slide 8 relates to both of those bullet points on this page. Is that correct?

A. That's correct.

Q. And turning to the next page, the next bullet point on the next page, I think you have some more information here about surface locations. I don't know if that's different in light of their recent revised surface locations, but can you just tell us what's pertinent here?

A. So actually the bullet points and my slides -- and my exhibits are reversed. My exhibit slide on

page 9 is actually -- we actually had to jump ahead to Exhibit 10, so I apologize for that.

So Spur's development plan -- excuse me -- on slide 10 is illustrated here. At the time of writing, four of the six wells had issues with their surface hole locations, being that they matched, so it would actually technically have been multilaterals. You would have come down one vertical well and kick off in two directions, which is technically possible but not something you would ever do in an onshore application like this.

The revision to this, however, has corrected those surface location issues. There is still location issues with 51H. The first take point and last take point violate the offset requirements in the State of New Mexico for the unit. They encroach on our existing horizontal unit. There should be a 330-foot minimum offset but it's only 200, so that 50H is actually a nonstandard location, which in their affidavit they reference it as a standard location. So that is an error.

But really what I'm trying to talk about here is there's a lot of ways to develop resources, and there's trade-offs that as engineers we make and geologists, and as an integrated team we make to try to

figure out what's the best way to do it. And "best" as defined by "most economic".

So what we have opted to do is to drill fewer wells with larger stimulations that we believe can maximize the recovery of the resource.

There are just about a little more than 500 horizontal wells in the Yeso trend. They were drilled predominantly by Concho, Apache, Percussion, so some of the predecessors to Spur Energy Resources.

That data is vast, and the State of New Mexico data is very, very good in terms of public data sources. We've analyzed every single one of those wells, and we've come up with our opinions on how to develop this based on that data.

We've also done extensive fracture modeling to decide how big these wells, these fractures propagate. So those brown boxes that are surrounding the well numbers is a model in fracture geometry of what we call stimulated rock volume. Stimulated rock volume is the amount of resource, the amount of rock that you're going to drain with any given stimulation. A larger stimulation can drain more rock, a smaller less.

In slide 10 when we talk about Spur's development plan, they are leaving a lot of resource left behind in between wells. And, you know, it's very

difficult to the quantify exactly, but we tried to use the fracture geometry from our model to simulate that.

The second problem is, in this play specifically but in general across the entire industry, fractures propagate up more than out if there is no barrier to fracture propagation. There is no barrier between the adjacent formation, which is about 1400-foot solid block of carbonate, and the St. Andres Formation which is a similarly thick sold block of carbonate. So the fractures have an ability to travel upwards unbounded.

So there is plenty of good data out there that are categories in this (inaudible) own and have, that support vertical well connectivity. If you connect wells vertically you impact the amount of rock that they can drain individually. It's called competitive drainage or wellbore interference. Stacking a well one above the other creates wellbore interference. The fractures do not break as much rock and when the drainage occurs they drain the same volume.

Q. And Mr. Mitchell, just to clarify we are talking about slides 9 and 10 that refer respectively to Longfellow's energy plan and Spur's development plan.

And I just noticed a housekeeping matter. I believe we inadvertently left off the number for those

two slides, but it is the two that are in between 8 and 11.

A. Correct.

Q. And moving on, I believe you've conducted a review of the AFEs. Can you --

A. Do we want to talk about our development plan? Because I did talk to Spur's development plan.

Q. I'm sorry.

A. Our development plan is -- I think the importance of these slides is to be looked at together, and to really understand what I'm talking about: Best industry practice when you're dealing with a thick reservoir.

So, again, the Yeso is 1,400 feet thick. There will be multiple places where we can land horizontal wells within that 1,400 feet thick, and the goal of any reservoir engineer and geologist team is to make sure that each individual well is not interfering with the wells around. So you place them appropriately side to side, and try to offset them up and down so that you keep your drainage -- uh, your stimulated rock volume segregated.

On slide 9 -- ghost 9 doesn't have a number on it -- I'm showing Longfellow Energy's plan. We are what's termed in the industry wine racking. We

are wine racking our wells. So the wells are each roughly 900 feet apart but the lower bench is offset by roughly 50 percent of the upper bench's spacing. So 400 feet, and 50 feet between each of the upper wells. That allows for the maximum amount of drainage, the maximum recovery factor out of the same volume of rock.

We also believe that larger fractures will stimulate more rock. Again, there are 500 wells that prove this fact that larger stimulations produce better results in the Paddock and Upper Blinebry.

So these are fundamentally the differences. So we are investing more -- and I'll get into the AFE here. We are investing more in the stimulation, less in the drilling, but we believe -- our data supports that we will recover more oil and gas from this technique.

Q. Moving on to the AFE analysis.

A. Sure. So there's a lot that goes into an AFE, and different companies categorize AFEs in different ways. I made an attempt just to align both companies' AFEs so the directional drilling ones have a directional drilling and the different cost codes match each other.

So there was a methodology to try to do the comparison, because nobody's codes are quite exactly the same but we are all doing something similar. So

understanding that people might, there might be an objection to some of the categorizations, the bottom line numbers are always the same in this comparison. So, you know, I might have allocated them slightly differently.

But that being said, on a single-well basis we have an AFE that's -- I want to say one thing before I get into that, because it is in my testimony.

The other thing that operators do is we put what's called contingency costs into AFEs. Usually they are in the intangible categories. Intangible means things that are associated with service; tangible means -- are things that you buy. Things that you buy there's very little risk, you buy them for a set price. Things you have services, sometimes things takes longer, sometimes there are complications and the costs go up. So we build contingencies in as line item.

On the AFEs for both Spur and Longfellow there are contingency costs within the AFEs. They are, you know, unknowns. Just in case.

Longfellow was carrying in our AFE $432,670 of contingency costs. It's Roughly 10 percent. Spur was calculating $75,875 in contingency costs there. So less than 1/5.

So that contingency again is not a line

item cost, it's a "just in case". So we can take the contingencies out of it as a first step and just say, "What does our actual engineering design comparison look like?"

Longfellow is proposing a $4.58 million single-well cost, Spur is proposing a $3.78 million single-well cost. That is an $800,000 variance. Our AFE is $802,113 more expensive than Spur's. Of that $802,000, $500,000, a little more, $520,000 is in completion, and $128,000 is in what we call tangible completions in facilities, which is equipment, and the other 150 is split between tangible and intangible drilling.

And I will go through the variances of those and kind of explain why those costs are different, so hopefully we are all on the same page with what the variance really means.

Q. And the testimony that you just explained here, that relates to slide 11; is that correct?

A. That relates to slide 11, yes.

Q. Okay.

A. And the next bullet, which is talking a little bit about the methodology, I kind of already addressed that, as well.

Q. So now are we to through the bullet that

begins "The AFE variances were as follows"?

A. Yes.

Q. Does this correspond to slide 12?

A. Yes. So the variance to the AFE, again is split between some drilling, majority completions, some tangible facilities or equipment costs.

If I start and go one by one.

The drilling: Intangible and tangible drilling variance was $154,465. That is, let's just say roughly 10 percent of the total cost of the drilling cycle. About 75,000 in service cost changes, about $78,000 in casing cost changes.

Longfellow and Spur run exactly the same casing design: The same kind of pipe made of the same kind of metal, cut with the same kind of threads, running with the same kind of couplings, with the same kind of crossovers. These are -- there's not a material difference in anything other than costs from the manufacturer. We don't know who they buy them from. But prior to buying casing we bid everything out. We usually bid out at least four or five different mills and pipe manufacturer, pipe sales people. So we are running off the most up-to-date costs.

I am comparing to Spur's AFE, which I believe was dated January. Now, I don't know -- you

know, there are things that I know that are not widely understood maybe, but one of the things that must be discussed here is that metal prices in the last six months have gone up by almost a 100 percent. So we have updated this AFE as of June 1st. This incorporates updated casing prices, so if I'm comparing to a January AFE -- if I was comparing to my own January AFE, my casing costs would be $100,000 higher than my own previous AFE.

So I'm not sure again if this AFE is fair in this particular example, but that being said, that's the major source of variance in drilling costs.

Q. And just to clarify, I believe slides 12 and 13 apply to your discussion of AFE variances, intangible completions costs and intangible --

A. I'm on slide 12, intangible and tangible drilling costs, and that's where I'm talking about the casing costs.

Q. Okay.

A. So there's $107,000 in variance between our AFES on intangible casing, which is, let's call it almost 70 percent of the total variance in drilling.

So if we've covered that one point, that should be enough to articulate the differences in that section of the AFE.

And I recognize -- to the court reporter, I apologize if I'm -- if you want me to slow down, I certainly will. I kind of get a head of steam, and I apologize.

Q. Now we are -- we can go on to --

A. Yes, there's a bullet for tangible completion costs on the next page -- Sorry. Excuse me. It crosses the pages. Intangible completion costs on the previous page, and then at the very top of the next page, variance $809,000. That is represented on my exhibit, slide No. 13

Q. Okay. Okay.

A. So I already told you the methodology difference we are talking about. We're going to put fewer wells with bigger fracks.

So we have our stimulation in one line item for the stimulation cost at 1.6 million, as well as water costs at $650,000 roughly, totaling $2.26 million for the completion. Spur has theirs broken down slightly differently. They have their stimulation services, the pumping company, the chemicals, the sand, the diesel and the water all broken out separately, but they are all rolled into our one number, so on an apples-to-apples comparison we have to look at the aggregate, because our 1.6 contains all those things.

Their completion cost is $1.45 million, so there is an $809,000-per-well difference in completions.

If we remember back to the total variance between the AFEs, I think it was 822,000. So this is really fundamentally the difference in the AFEs.

They actually, I believe, already spoke towards in opening statements that Spur's design is for 60 barrels a foot, Longfellow's design is for 90 barrels a foot as the fluid loading of the stimulation design. Without getting into the nuances and technicalities, just think of the size of the frack job. Ours is 90, theirs is 60, which makes our jobs 50 percent larger than their jobs.

If you normalize the fracking, the AFE stimulation costs to the size of the fracks, which is just take the capital and divide by the barrels per foot, our costs are within 4 percent of one another, which means our costs are higher because we are putting bigger jobs in the ground. We are putting bigger jobs in the ground because we believe the data supports very strongly that these bigger jobs produce more oil and gas.

Q. Are we ready to move to slide 14?

A. Sure. Slide 14 is tangible completion costs. Again think of that as equipment costs: things we buy

and we use and we put on the ground and we put downhole. And the variance is $128,000 between these two AFEs, but there is a very important distinction here, and it's from what we call artificial lift. Artificial lift is the method which you use to produce your oil and gas out of the ground. Some people run pumps, some people run gas, gas lift. There are many methods to produce, but us and Spur are both running what's called electric submersible pumps, ESPs.

Spur's AFE does not have any cost associated with ESPs because they are renting ESPs from a service provideer. We are capitalizing our ESPs because we believe, just like infrastructure, just like the water infrastructure, pipeline infrastructure, oil and gas infrastructure, that owning your own equipment is ultimately the most profitable way to operate.

We are capitalizing our ESPs for $175,000 per ESP. That's our current cost. That's roughly the cost that it cost us on the previous five wells we just completed a few months ago. That's the number that we represented in our AFEs.

In our discussion for our working interest ownership in the Welch wells, we were told -- we asked, "What's the fixed and variable operating costs associated with running that site that we'll be

responsible for paying, and their fixed cost that they articulated to me was $16,000 per month. Compare that to our $3,500 per month. The entire arbitrage in those two numbers is ESP rental.

We also reached out to ESP rental companies, and that's roughly the number that we were given on a rental offer.

So $12,500 a month they're offering to pay as rent, where we decided we are going to purchase the equipment, hold it, operate it, and run it ourselves.

The variance in -- there is a lot of reasons you would do both, either decision. I'm not going to argue there is not room for rental market; there certainly is. The equipment we're talking about has a life of -- let's just say standard in the industry is between two and three years. 24 to 36 months is the life for an ESP.

These wells will -- the Paddock will require ESPs because they handle higher volume for longer than the Blinebry, so there's a little bit of -- let's call it -- you can make, play with the numbers a little bit, but if we estimate an ESP run life of 30 months, which is the average of 24 and 36, the break-even run time for these ESPs to be in the ground

is 14 months.

Uh, the time before the ESP is below the ESP-producing range by design is 18 and 1/2 months, which means that we would keep these wells in the ground four months longer than decline profile of the oil and gas says they should be in the ground. Or four months longer than the break-even point. Excuse me.

But even in the first run we're better off buying.

The second variable that has to be taken into account is equipment has value, even if it's used; there's a salvage value associated with all the equipment that we use. So even if we ran it in the well for 18 months, or 18.4 months as we calculated, that equipment still has 11 months, roughly, of usable life left in it that we could put in a new well or find another application for it.

If you take the break-even run life, the incremental salvage value, and the incremental cost to rent over that initial -- that 4.4 months beyond the break-even, it's $122,000 cheaper to buy the equipment than to rent the equipment. That's the basis for our decision. You know, Spur's entitled to their own operating philosophy, but that's essentially the difference in that line item is 100 percent a rental

versus purchase difference.

That concludes my discussion on the AFEs.

Q. Thank you. Moving on to the reservoir engineer's analysis that begins on slide 15, I believe this relates to the petrophysical analysis that Ms. Eker referred to earlier. Is that right?

A. Yes. So we conducted a petrophysical analysis of the area. You know. And you can't do this on every well, you pick a handful of wells across a specific area, but on this area specifically that we're talking about, we did look at a well fairly near to this unit.

We did an internal and we had an external independent third party run the same analysis for us, a consulting firm, and we got fairly close agreement with our results.

So what that analysis shows is that -- so we break our zones into benches that don't perfectly align with the stratigraphic hull. Yet it's 1400 feet of solid carbonate, and, you know, the geologists will tell you a bunch of reasons why different layers are different than others, but you and me looking at something, it's all just rocks, and what really matters is how much of that rock one stimulation can affect.

So our benches don't perfectly align with the stratigraphic column, and so our Bench 2 actually

contains some Paddock and the Upper Blinebry. So that's something -- you can kind of see on the left-hand side of my slide 15. You can kind of see the tops in red of the formations, St. Andres, Glorieta, Paddock and Blinebry, and then our benching in green, Bench 1, Bench 2, Bench 3, Bench 4.

When I term "proven and prospective," underneath each of the benches, that's more than economic term. And as a reservoir engineer there are reserves that you can say are proven and there are -- and to be proven there's a bunch of criteria that falls into it, but to be prospective -- to be proven reserves it has to be economic, first and foremost, so if you cannot hit the economic threshold it is not proven reserves.

But there is certainly prospective, possible, contingent resources. There's lots of categories that you can fall into, but that's really what that proven versus prospective means.

There were across that roughly 500 wells in the Northwest Shelf, a little over 100 horizontal wells that were landed in the Blinebry, at various intervals within the Blinebry. So it has been tested. It has been. There's some good wells, there's some not as good wells. We have looked at every one, and our

interpretation of the actual production data fairly closely matches the petrophpysical data that I'm showing on this slide: Paddock produces the most oil, the Upper Blinebry produces the next, but there's a stair step down as you move into the Middle and Lower Blinebry.

I'm not saying that those will never be economic, I'm not saying that different techniques couldn't unlock more reserves from those benches, but that's something that from our perspective is not proven, does not currently hit the economic hurdles that we see. And at very least we are fresh (phonetic) in the midst of planning programs to test it, but it's not necessarily true to say that the Middle and Lower Blinebry can stand alone on their own as horizontal targets.

Q. Moving along to slide 16, I believe this is an illustration of why Longfellow's proposal to use larger frack jobs results in more recoverable oil and gas and is therefore more economic and efficient.

A. Right. So this is a subset of wells from a much larger study that we thought would -- because these are in the same section, or adjacent section, very close together, stimulated in roughly the same time frames with slightly different techniques, so from an apples-to-apples comparison we thought would illustrate

the point.

On the left-hand side are wells that were stimulated at or close to 90 barrels per foot of frack size. On the right-hand side are wells that were stimulated at or close to 60-barrels-per-foot frack size.

You see on the left, the design that we are taking recovered 571,000 barrels of oil from the well. Now, this is an aggregate of several wells, so the normalized type curve was 571,000 barrels per well.

The smaller frack design on the right-hand side of a similar aggregate of wells produced 450,000 barrels per well.

So I had the percentage up on a notepad on the other side of the table, but there is a significant up-tick, 170,000 barrels, incremental oil that you can make by stimulating these wells with larger fracks.

We also did spacing studies that support well spacing not impacted under the spacing that we're using.

Q. Moving on to slide 17.

A. Slide 17 is a reservoir engineer's analysis Estimated Ultimate Recovery, EUR. So again this is a bit of a montage between the petrophysical study and the

actual production data of the 500 wells, and as you can see, if you normalize again to the difference in frack sizes, our Bench 1s, as I showed in the previous side, we expect to produce 170,000 barrels more oil; in Bench 2 roughly 54,000 barrels more oil; and on the Bench 3 theoretically it would be about 20,000 barrels more oil.

That's essentially comparing the 60- and the 90-barrels-per-foot simulations.

Q. And, finally, I believe your last slide is No. 18, your F & D analysis.

A. Okay. So I think I started this by saying there's more than one way to do things, and the goal of any engineering/geology department is to figure out the most efficient way to do that: How to get the most reserves out of the ground for the lowest cost.

And an F&D is a finding and development cost, is a metric we use in the oil business for lots of different reasons, but one thing is to compare projects. And simply think of it as the ratio of dollars spent per barrels of oil. Okay. So total dollars spent divided by total barrels of oil recovered.

Taking the adjusted side-by-side comparison to AFEs, we talked about at the very first part of the AFE analysis, 4.5 vs. 3.7 million per well, taking five wells for Longfellow, six wells for Spur, at

the various estimated ultimate recoveries of each, the total oil per well for each, our five wells we expect to make just under 1.1 million, uh...

There is an error in this sheet. I'm sorry. It's correct below, but that 1.08 and 892 is just the arithmetic sum of those columns, it's not the weighted average -- or the cumulative sum.

But in the table below 2.38 million barrels of oil in the third table. So our five wells we believe will make 2.38 million barrels of oil, their six wells our calculations show about 2.1 million. So there is an arbitrage in the expected ultimate recovery. Our capital costs for five more expensive wells is just under $23 million; their capital costs for their six wells is $22.7 million.

So when you take the ratio of the reserves and the CapEx, we have a $9.3 per barrel recovery of oil, where Spur's proposal is a $10.95 per barrel recovery of oil, so we are $1.33 per barrel more efficient or roughly 10 percent more efficient than Spur on a proposal-per-proposal basis.

MS. SHAHEEN: Thank you, Mr. Mitchell.

That concludes Mr. Mitchell's direct testimony, and I pass the witness for cross-examination now.

HEARING EXAMINER BRANCARD: We are going to check in with the court reporter, because as Mr. Mitchell admitted, he can really go for it here.

(Note: Discussion off the record.)

(Note: In recess from 3:43 p.m. to 3:55 p.m.)

HEARING EXAMINER BRANCARD: Ms. Macfarlane, are you ready to go?

So I think we are back on the record now in Case 21651 and Case 21733. We finished with the direct testimony of Mr. Mitchell.

Ms. Shaheen, do you have any more exhibits that you need to admit at this point?

MS. SHAHEEN: That's a good question.

I think the only exhibits -- well, I'd like to have Mr. Mitchell's testimony and exhibits entered into the record. Uhm, I have one additional exhibit for Mr. Reynolds, and I believe I can present that in rebuttal.

HEARING EXAMINER BRANCARD: Did we get all of your Notice exhibits in?

MS. SHAHEEN: My Notice Exhibit D we can do that now. I have my Affidavit of Notice attached to the exhibits as Exhibit D. We mailed to all the folks that are in the Notice attached as Exhibit A to the Notice Letter. In addition, we published in the Carlsbad

Current Argus on February 4th to all those persons whose Notice was directed by mail. And in light of that and the attachment to my Notice of Affidavit, including the Affidavit of Publication, we believe that Longfellow has appropriately provided notice to all interested partis.

HEARING EXAMINER BRANCARD: All right. Well, let's start with Mr. Mitchell's Written Testimony and exhibits.

Are there any objections, Mr. Rankin, Mr. Rodriguez?

MR. RODRIGUEZ: No objection.

MR. RANKIN: No objection, Mr. Hearing Examiner.

HEARING EXAMINER BRANCARD: So then the Notice exhibits that Ms. Shaheen has just gone through that were part of her packet of exhibits, are there any objections?

Mr. Rankin?

MR. RANKIN: No objection.

HEARING EXAMINER BRANCARD: Mr. Rodriguez?

MR. RODRIGUEZ: No objection.

HEARING EXAMINER BRANCARD: So those two packets will be admitted.

I think we have everything. Is that correct, Ms. Shaheen?

MS. SHAHEEN: Everything but rebuttal exhibits, I believe.

HEARING EXAMINER BRANCARD: So what we don't have, then, are for I believe Ms. Eker, Exhibits B-3 and B-5, they have not been submitted yet in to the Department.

MS. SHAHEEN: If I can ask Marlene how she wants us to submit those.

HEARING EXAMINER BRANCARD: I would think through the portal.

Marlene?

MS. SALVIDREZ: Through the portal, please.

MS. SHAHEEN: Do you want them separate pages or do you want me to put everything into a new entire package and resubmit the entire packet?

MS. SALVIDREZ: So the hard thing about that is was when I approve something, and I need to -- if I need to replace it, what I need to do is go to the system, find it out of hundreds of documents, and reject it and then approve the new one. So I prefer to just have separate exhibits so it could just be uploaded.

MS. SHAHEEN: Okay.

HEARING EXAMINER BRANCARD: I mean, I would suggest you have a cover page that indicates what you're doing.

MS. SHAHEEN: Okay. We'll do that.
HEARING EXAMINER BRANCARD: Okay. Thank you. So I assume you can do that maybe tomorrow.
MS. SHAHEEN: I think it depends on how long we will be in this hearing.
HEARING EXAMINER BRANCARD: Okay. So let's see if we can try to finish up the questioning of Mr. Mitchell today.
And then how many witnesses do you have, Mr. Rankin?
MR. RANKIN: Mr. Brancard, we have three witnesses for direct and, you know, I will endeavor to, you know, follow similar time frames as Longfellow on the summary of direct.
HEARING EXAMINER BRANCARD: If you could make it shorter it would be better.
MR. RANKIN: Yeah.
HEARING EXAMINER BRANCARD: All right.
Marlene, are we set up for a court reporter tomorrow?
MS. SALVIDREZ: No, but we will need to ask if we have to go to tomorrow. They know that they are kind of on call for the Fridays after hearings.
HEARING EXAMINER BRANCARD: Because I don't think we are going to get done today, and also I

don't -- you know, I don't want to drag Ms. Macfarlane, just coming back from surgery here, to late in the night. So...

Maybe we can contact the court reporter and let them know 9:00 o'clock tomorrow.

HEARING EXAMINER BRANCARD: Okay. We will go forward. I don't think we will be done by 6:00 but we can always hope.

So let's get Mr. Mitchell back in the hot seat. And are you ready to go, Mr. Rankin, with questions?

MR. RANKIN: Thank you, Mr. Brancard. I am prepared to proceed with cross examination.

HEARING EXAMINER BRANCARD: Please do.

CROSS-EXAMINATION

BY MR. RANKIN:

Q. Good afternoon, Mr. Mitchell. How are you today?

A. Good, thank you.

Q. Good. Again, just because of the virtual format, let me know if you can't hear me, if my question is garbled, if I'm interrupted, or if there is an interference or if I break up in any way. Just let me know if you don't understand. I'll do my best to ask my questions clearly and slowly. Just let me know if you

don't understand. Okay?

A. Thank you.

Q. And I apologize, but -- I'm going to try not to do this, but I'm going to have to jump around a little bit on my topics. I like try to keep my sentences -- my questioning, you know, in the same topic, but I'm going to have to jump around with it just out of the nature of the -- the challenge of trying to group it together is a little rough. So I will have to jump around a little bit.

Now, I understood in your direct testimony that you -- you testified that Spur's well, unit well is continuing to flare as of today. Is that your understanding?

A. Well, actually the update, to be honest, is as of yesterday, but yes.

Q. So it's your understanding that the flaring has been -- it's no longer flaring as of today.

A. No. I have no update from today, but as of yesterday afternoon the update was it continued to flare.

Q. Okay. Do you have an understanding that Spur was contracting with DCP to take away its gas for that well?

A. Yes.

Q. And similarly that Longfellow had a contract or has a contract for its Hendrix wells in the south half of 13, correct?

A. Yes.

Q. And that -- you had an understanding that Spur was working with DCP for approximately nine months to try to get takeaway capacity for its gas on the Welch unit well?

A. I have no insight into what Spur was doing on the gas line.

Q. Okay. You understand that they were contracted with DCP to take that gas away.

A. I understand that DCP is the marketer.

Q. Yes.

A. Okay.

Q. Very good. So in your situation where DCP's compressor went down, that was out of your control, wasn't it?

A. Correct.

Q. So nothing that Longfellow could do to prevent that flaring from occurring in the Hendrix CD wells in the south half of 13.

A. Correct.

Q. And to the best of your understanding, is there anything that Spur could have done with DCP's

takeaway capacity to avoid flaring in the Welch unit well?

A. Of course.

Q. Other than shutting the well in?

A. Yes. They're -- as an example of what I'm trying to say: Yes, they could have done something, just as we did something. DCP was being slow to build to us so we built to them. The pipeline right of way from Spur to the tie-ins is a few hundred feet.

Q. Okay. Is that your understanding was the only issue was building a tie-in?

A. I'm not going to sit here today and say I know what the issues are.

Q. Okay. So you don't know whether it was takeaway capacity or any other issues that were affecting Spur's ability to avoid flaring.

A. Correct. I do not know.

Q. So you actually don't know what Spur could have done or could not have done if you were sitting in their shoes.

A. I don't. I do know we've had many encounters with DCP that have resulted in us capitalizing things that DCP did not want to capitalize. It has gotten us around on issues on three sites now. But I do not know the specifics of the Welch 28A issue with DCP.

Q. Okay. Now, on the analysis that you did -- and I'm going to kind of get there slowly -- I understood that -- let me get the right page of your exhibits. I believe it's page 16 or slide 16 where you talk about the -- title of Reservoir Engineering Analysis in Larger Frack Jobs Equals More Recoverable Oil and Gas.

Do you have that exhibit in front of you with the two?

A. I --

Q. I'm sorry. I think you broke up. I think you said you did.

A. Right. I have it. Yes.

Q. That last bullet you talk about, you say that the results are consistent with larger studies of more than 500 horizontal wells across the Yeso play.

A. That's correct.

Q. Okay. Of the 500 wells across the Yeso play, how many used a similar completion design of 90 barrels per foot or more?

A. I'd have to look, but it's somewhere between 10 and 20. Approximately 10, let's just say.

Q. Ten?

A. Yeah, right.

Q. Okay. So out of that 500 wells no more than

10 utilized a completion design of 90 barrels. Is that correct?

A. So I'll be clear. We bucket them, because there's ranges to these what we call generations. So the generation that is 90 will contain some that are 80, some that are 75, the generation that is 60 will contain some that are 55, some that are 60, to get statistically valid numbers.

So, yes, there's -- I think in the 90 barrels I think there were 12 wells in that sample set. In the 60 there was a larger number of wells in that sample set.

Q. But in the study that you did for purposes of this hearing --

A. Yes, this is just a sample set of I believe three and three. I have it in my testimony how many wells went into these groups, yes.

Q. So there's six or seven wells, or something like that, that you used as a subset for your testimony and exhibits in this case.

A. Correct.

Q. Okay. And then in that larger-frack-size bucket, just so I'm clear, what was the range of the frack stimulus in the larger-frack-size bucket in the subset that you used for this case?

A. Well, in the subset for this case I'd have to look exactly, but it was wells in adjacent sections or the same section that had 50 to 60 barrels per foot in one case, and 80 to 90 barrels per foot in the other case.

Q. Okay.

A. And I believe there's three wells in one and four wells in the other comparison.

Q. Okay. Now, you said in the adjacent section. Are you talking about the section adjacent to the Longfellow proposed Hendrix wells in this case?

A. No, I'm sorry. What I mean is the wells in page 16 were all from the same geographic area.

Q. Okay. How far away was that geographic area from the proposed spacing unit in this case?

A. It's in the -- approximately 20 miles.

Q. Which direction?

A. West.

Q. Okay. And did you work with a geologist to determine whether or not the rock quality in that area of your (inaudible) analysis is comparable to the rock quality in the proposed spacing unit?

A. Yes.

Q. And is it your opinion that the rock quality is of the same quality as the rock in the proposed

spacing unit?

A. Quality is a fairly loose term, but if we're defining per reservoir in the selected porosity being important and oil saturation being important, we normalize -- we normalized our petrophysical study across the basin to thickness porosity and oil saturation, but in this area that we're talking about 20 miles west that all of these wells in this study are from, I would say the rock quality is -- there's slightly thicker, high-porosity rock.

So if you just want to state quality in that one dimension, it's slightly higher quality in the Paddock.

Q. Okay. What about the Blinebry?

A. I'd say they are very comparable.

Q. Now -- okay. So your opinion is that the -- in this study that you did for this case, in your analysis did you normalize the values, the production for the thicker rock quality in the area of these seven wells that you used?

A. No.

Q. You did not.

A. No.

Q. So when I look at the subsequent pages of your exhibits, you know page 17 and 18 where you do the

reservoir engineering analysis where you have the comparisons of the ultimate recovery estimates by bench, and then you have got your analysis of the F&D analysis on the next page, that analysis is all dependent on the rock, based on those seven wells that you did this study for in this case. Correct?

A. In part. It also has -- so there's two analyses we did. The seven wells was to provide an articulation of the different frack sizes and their relative impacts, but also we -- for the lower benches we paired those to actual well performance across the entire play in the Paddock as you move down to the lower benches.

Q. So on data, then, if I'm looking at the end, if I'm...

Okay. It's on page 16 where you have the decline curves. Those decline curves are based only on the seven wells in the subset of those 500 we are talking about, right?

A. There are seven wells out of that 500, but that's a standalone, yes.

Q. Then on the next page where you have the estimated ultimate recovery, for each of those benches, are those based on those seven wells, as well?

A. So yes, but the Bench 2 is essentially scaled

down according to the 500-well study as you move down in the benches, the arbitrage between the productivity of the benches.

Q. Okay. So you find some sort of factor of modification of the DUR for Bench 2 that you didn't apply -- uh, uh, you applied that to Bench 2, based on the 500 wells, but they didn't apply to Bench 1.

A. Correct.

Q. Okay. Why didn't you do the same thing to Bench 1?

A. Well, because it's already normalized to -- so maybe I'm not being perfectly clear.

So if we go to the petrophysical study, what we're trying to show is the oil in place in the reservoir as you move down the column of rock. Now, oil in place, if there's -- let's just say in Bench 1 I called it 80.9 thousand barrels of oil per acre. You will never recover 80.9 thousand barrels per acre, you will recover a small fraction of that, maybe something approximating 10 percent. That's called the recovery factor.

So production on the ground is a small percentage of the total oil in the ground. One of our jobs is trying to maximize that, so -- but if we're talking about economics, we need to look at how much oil

can come out of the ground, so we take a subset of producing wells, that's the next slide where we have larger fracks and smaller fracks side by side of producing wells, and we ratio those down in the benches, because simply there's not sufficient wells of larger sizes and quality, frack size and vintage in Bench 2 and Bench 3 to do the same kind of analysis.

Q. Okay. I think I'm following you. Okay. But the takeaway, I guess what I was initially after, is that you work with the geologist to determine whether or not the rock quality that comprised the study that you did on those seven wells including the decline curve is comparable in quality to the rock in the proposed spacing unit.

A. Correct.

Q. And you're telling me that it's a better quality in the Paddock in the analysis of these seven wells. Correct?

A. Yes. It's -- the better way to put is the Paddock is thicker in the southwest than it is as you move northeast. The other thing that's important to understand is the Paddock is not one landing zone in the southwest, it's two. So there are nuances there, and one horizontal well cannot stimulate, you now, 1,000 feet.

So if it was -- our Paddock here is about 300 feet, the Paddock down there is probably 450 to maybe even 600 feet in some areas. But one horizontal well is not effective, you know, to stimulate all of that.

So the question you're asking, I do understand it, but it's a very difficult question to answer clearly, because rock quality and stimulated rock volume are related but also different.

Q. Okay. Now, I understand that the Paddock in the area where you selected these seven wells is thicker and there may be -- you said there may be two zones or benches within the Paddock in that area. Correct?

A. Correct.

Q. Did you screen your wells that you used for your analysis based on whether they were completed in the Upper Paddock or Lower Paddock?

A. Yes.

Q. So did you isolate wells that were in the same zone of the Paddock in this analysis you did as for the proposed spacing unit in the case?

A. Yeah. And I'd have to refresh my memory on that, but we did -- we like to use our analogy with the Lower Paddock well. In that area.

Q. The intent was to focus on the Lower Paddock.

A. The intent was to focus on as like rock as possible.

Q. Well, I'll leave that there, Mr. Mitchell and I'll move on to some other set of questions. I appreciate you working with me on really...

You talked about the impact of stacked laterals, of stacking laterals and your understanding, your opinion that the way Spur proposes to orient its laterals in the Paddock and the Blinebry -- you refer to stacking them because they are not as offset as Longfellow is proposing. Is that a kind of a fair characterization of your testimony?

A. Yes, sir.

Q. Do you have -- I don't think I saw it, but -- correct me if I'm wrong, but do you have actual production data evaluating the impacts of stacking laterals, as you described, in the Yeso Formation in New Mexico?

A. We do not have in-house data like that. We did employ the chief geologist for Concho Resources for a period of about a year where we did some analysis towards this, but I don't have that readily available.

But we've looked at it.

Q. So you don't have any data -- I mean, if you had it, I suppose you would have presented it to show

there's an impact on the production when such well designs are implemented, but I don't see that in your data.

The challenge with looking at older wells particularly is that there's lots of variables to change. So -- yeah, I mean there's a lot of variables that would change through time, so the wells we looked at were not necessarily perfectly comparable to the wells we are talking about here today.

Q. I'm just trying to figure out -- you seemed very confident there was an impact, but there's no data to support it so I guess my question is: Is that just speculation?

I guess the answer would be we've looked at it, I don't have data here to support it in detail, but I could develop some if I needed to.

Q. I guess, Mr. --

A. I want to answer your question most accurately, uhm, without guessing and try to remember.

Q. I don't want you to guess or speculate, but I guess my point is: Even generally, is there any data generally indicating that there's any kind of impairments on any one of the wells when they are stacked within the Yeso?

A. In all play this is a discussion. You know,

we have entire technical conferences about well interference, parent/child interference. This is a field of study in completions and reservoir engineering.

Have I seen something somebody published specifically for the Yeso, the answer is no.

Q. Okay. I think I may have heard you say that you recognized that the C-102s that were presented in your exhibit packet have updated surface locations. Do you agree?

A. Yes.

Q. And there are some updated bottomhole locations, as well. Do you agree?

A. I do.

Q. And in particular I'm talking about Spur's proposed 51H well.

A. Yes.

Q. Okay. And I could walk through it with you but I just want to make sure I understood.

Do you agree that well is no longer in a nonstandard location in the proposed spacing unit?

A. My interpretation of the updated locations is that it is no longer a standard location.

Q. No longer in a standard location?

A. That's correct.

Q. What is your understanding of what a standard location is in this pool?

A. In this unit the standard location would have to be 330 feet from the unit boundary to the south and 100 feet from the east and west boundary of the unit. And in the 51H that was reproposed if you draw a straight line between the first take point and the last take point it passes 200 feet from the unit boundary to the south.

Q. I'm talking about -- Mr. Mitchell, I'm talking about not the Well Proposal Letter, but I'm talking about the C-102.

A. Yes, sir.

Q. Okay. And you're talking about the C-012, and you're saying that if you were to draw a straight line between the first take point and the last take point it's going to pass close to the 200 feet, closer than 330 feet to the boundary of the unit.

A. That's correct.

Q. And that's just based on your assumption that a straight line would be drawn between those two points and not that the well is intended to be at a standard location.

A. (Note: No response.)

Q. Your assumption is that Spur would draw a

straight line between the first and last take points.

A. That is true.

Q. Is that analysis of yours based on the idea that the curvature of the earth would affect how that line was drawn between the first take point and the last take point?

A. No. It's from -- excuse me.

Q. Okay. But the first take point is more than 330 feet off the boundary of the unit, correct?

A. That's correct.

Q. And the last take point is more than 330 feet off the boundary of the proposed unit. Correct?

A. Also correct.

Q. Okay. So the question is whether or not the feeder lateral will be, uh, uh, closer than that 330 feet. Agreed?

A. No. The question is the validity of the survey. The survey has an error. The survey shows that Section 13 and 14 are parallel, but they're not. Section 14 -- I'm looking at the map on the wall to make sure I've got the numbers straight.

Section 14 is at an angle, so your first take point is further south than your last take point, cutting through the 330-foot buffer.

Q. Okay. And my point is the way you're

describing the survey is because of the curvature of the earth and the way the section line is created in that area. Correct?

A. It's just the way the land grid is built.

And on this resolution the curvature has nothing to do with it, it's a survey error.

Q. Okay. Now, we talked a little bit about -- on the ESP, the rental costs for the ESP, do you recall who at Spur gave you that $16,000 cost as the rental cost for an ESP unit?

A. Yes, I do.

Q. Sorry?

A. Yes, I do.

Q. Who was that?

A. Mark Hicks.

Q. And it's your understanding that value was for an ESP unit?

A. That was valued, as all of the fixed monthly costs associated with their operation. There was a fixed and a variable cost combined.

Q. So it wasn't presented to you as a cost for an ESP rental price, correct?

A. No. That's why I subtracted our fixed costs from that $16,000 a day, because there are other costs that there are -- you know, you pay the operators, you

pay -- there's a lot of other costs associated with that.

Q. So you are not aware that Spur is actually paying more like $5,400 for its ESP units.

A. No. I have no information on that.

Q. How many ESP units does Longfellow actually operate at this time?

A. Between Longfellow and Transatlantic, roughly 50.

Q. Who is Transatlantic?

A. It's our international branch.

Q. How about -- how many does Longfellow operate?

A. I want to say zero. Oh, five, actually. Five.

Q. Five?

A. Yeah.

Q. Okay. Are those the five units in the south half of Section 13?

A. That's correct.

Q. So they haven't been operating -- have they been operating at all yet.

A. Yes. They've been operating, some for several weeks, some for just a few days.

So you don't have a sense for -- you don't

know what your run time would be for these ESP units that the Longfellow's operating?

A. At this point we have no data for that.

Q. Do you know what Spur's run time is for its ESP units?

A. No.

Q. So you assumed Spur's run time would fit within some average range when you conducted your analysis.

A. I just got the generally accepted industry averages of two to three years for ESPs. So that comes from -- when you publish reserves if you have a bank or you're a public company, you have to put capital for ESP replacement, and reserve auditors require it to be, the capital to show up between two to three years for ESP in a well. So that's a generally accepted engineering practice.

Q. But you don't know what Spur's actual run time is for any of these ESP units.

A. Run time and run life are not the same, so I don't want to confuse them. Run time is essentially a percentage of operating time, so in a 24-hour day average for the year. Run life is the life of -- the usable life of equipment.

And so there is an important distinction

there. I don't know their run time, and I'm -- but I'm using comparable equipment run life for general industry-accepted practices for my estimate.

Q. So the distinction there, on that line, you don't know what is Longfellow's run life for its ESP units. Do you know what that would be yet?

A. No.

Q. No. And you don't know what Spur's run life would be either.

A. No, I don't.

Q. And what would Longfellow -- I mean, in your analysis and in your cost analysis, do you account for what -- what would Longfellow do if you have an ESP failure? How is that accounted for in your analysis?

A. If you have a failure you replace the ESP at incremental cost. And that is essentially the trade-off that they'e making, which is we're not going to capitalize, we're going to rent. If it fails the rental company will replace it. Where we are taking the adage that we would pay for specific equipment to protect the ESPs but we would also take ownership of that risk.

Q. Did you incorporate that risk in additional costs in your analysis?

A. It's part of our fixed and variable costs, yes.

Q. Now, on the Middle Blinebry question, you know I understand, you know -- I just want to ask a couple of questions around it, just so we get a better sense of where you're standing on it.

I understand that, you know, in general -- my understanding of the testimony is that Longfellow is going to be evaluating the Middle Blinebry in other areas. Is that fair to say?

A. In this and other areas.

Q. In this area, as well. Okay.

In your -- I mean, current -- what's the current pricing for oil as we sit here today?

A. You know, I try not to look too frequently because it causes my blood pressure to go up, but it's probably in the neighborhood of $66.

Q. Okay. And at that current pricing do you have an opinion whether the Middle Blinebry in this area is economic?

A. I have an opinion, yes.

Q. What is it?

A. It's that it's not currently economic on a standalone basis.

That being said, I believe that there is validity to, uh, trial.

Actually, Spur proposed, and we proposed

to participate or elected to participate in a Middle Blinebry test. It's actually -- and a Lower Blinebry test in the Welch wells. But they never drilled them, which I suspect will be within (inaudible).

Q. So on the question of whether or not its economic, which in your opinion it's not currently, at what pricing do you believe the Middle Blinebry would be economic?

A. That's essentially what the pilot project would be trying to answer.

Q. So you don't now at this point when or if Longfellow would ever pursue developing the Middle Blinebry in this spacing unit.

A. Hard to say. We have a pilot planned for next year. You know, we're a little bit behind Spur in our entry into the basin. You know, we had actually planned to spud wells about -- we had a driller and a location when Coronavirus started, which was going to be the kick off of our project. And the price of oil collapsed and we shut everything down. But it's -- yeah, we can't do everything simultaneously. We have the initial phase which we're doing now, which is really Paddock and Upper Blinebry, and a de-risking of the Middle Blinebry is going to follow that; and a de-risking of the Lower Blinebry is going to follow that.

We also have plans to test other horizons in the stratigraphic column. We've done vertical tests in the St. Andres.

So there is a lot more to be done here, and we are just not -- I'm not going to sit here today and say we're going to try to get through it all right now.

Q. I guess -- you know, I guess what I'm getting at here is if one company believes it is economic and you can make a profit off it and effectively develop it, and the other is uncertain about it and may take years to develop -- I guess my questions is: Is there a risk of leaving those reserves in the ground?

A. I'd say the risk is quite the opposite.

If you drill the Middle Blinebry and Upper Paddock and leave the Upper Blinebry undrained, you create pressure sink all around that rock and you will not ever be able to come back and effectively stimulate that rock that you left behind in the middle, like a donut hole of rock.

Reservoirs and fractures are like hot and cold. People think heat rises. Heat goes to where it's cold. Pressure goes to where there is no pressure. So if you deplete all around that Upper Blinebry which is higher reserve quality than the Lower Blinebry you will

more likely decrease your recovery factor in the rock that you're leaving behind. So I'd say the risk is exactly the opposite as you stated.

Q. Then but if the Middle Blinebry is -- if it determines the Middle Blinebry is prospective, not just prospective in this area but would be economic to develop, based on your pattern between these benches, would Longfellow be able to go in and develop the Middle Blinebry based on your current spacing pattern?

A. The Middle Blinebry would exactly replicate the Paddock spacing but in a lower bench, so they will be vertically separated by approximately 800 feet and horizontally offset by approximately 450 feet from the Upper Blinebry.

Q. So Longfellow proposed to drill and complete three horizontal wells in the Middle Blinebry matching the spacing pattern in the Paddock.

A. Based on a lot of assumptions, yes.

Look, the spacing of the Paddock is fairly well defined. There's 2500 to 3,000 wells that have been proving that up for about 50 years. The spacing in the Blinebry is not well defined, mult- -- and we will, Spur will, and other companies will be trying to figure what that appropriate spacing is at now.

So to take it even further, project or conject what the spacing should be in the Middle Blinebry, there's just not the well caliber density or production data to make that determination.

Q. Would you be surprised that Spur is economically producing wells completed in the Middle Blinebry within two to five miles of the proposed spacing unit?

A. I would be.

Q. Okay. So you're not aware of that.

A. What wells are you talking about.

Q. Well, I'm asking you if you are aware of the wells within the -- within two to five miles of the spacing unit that are producing in the Middle Blinebry.

A. The only decent Blinebry wells from this location are in what's called the East Skelly Unit and it was a standup unit drilled by Concho in 2017 or '18 that has never been replicated since.

So unless it's another set of wells you're talking about, it would be the East Skelly Unit. Those would be the only Middle Blinebry wells that would be economic to drill today, to my knowledge.

Q. What is the distance of the East Skelly unit from the proposed Hendrix spacing unit?

A. I would say it would be about five miles.

Q. Okay.

A. I mean, as the crow flies, without a map, probably.

Q. Now, Mr. Mitchell, I want to get more -- I want to spend a little more time on the spacing that the two companies are proposing here between their wells and between their spacing units. Okay?

Now, Longfellow operates five horizontal wells in the south half of Section 13, and I'm going to refer to those as the Hendrix CD Unit wells. Is that fair?

A. Yes.

Q. Then Longfellow's proposal for this spacing unit -- that in this case I'm going to refer to those as the Hendrix ABX wells. Is that right?

A. Yes, sir.

Q. Now, for this proposed spacing unit, the ABX unit, the wells in both benches targeted by Longfellow in the Paddock and the Upper Blinebry will be spaced about 900 feet apart; is that right?

A. That's correct.

Q. So the spacing in both benches, the Paddock and Blinebry, will minimize interference from wells in the same bench between spacing units. Between the north half and the south half of 13. Agreed?

A. Agreed.

Q. That's your testimony. Okay.

And the spacing proposed at 900 feet will also minimize interference from wells in the same bench in the same spacing unit. Correct?

A. Yes.

Q. So 900 feet is the sort of preferred spacing for the Paddock and for the Blinebry.

A. Right now, as I stated a minute ago, at the Paddock level there's good data. And there's interpretation in the data, as always. It's been proven by other operators that 660-foot spacing has shown a significant wellbore interference, although there's some exceptions to that rule. And our determination right now is we're trying to vary between 750 and 900, and our decision has been to start at 900 and move in as we see well results.

Q. Okay. In your testimony I understood you to say that Longfellow's proposed spacing is consistent between the two spacing units. Right?

A. Roughly speaking, yes, sir.

Q. Roughly.

A. I can't say exactly but I want to say it's fairly close.

Q. And that's because the Hendrix CD here, the

one in the south has wells in both benches that are also spaced about 900-feet apart in both benches.

A. Correct.

Q. Okay. Okay. So then your spacing in the Paddock is consistent not just between the wells in each bench, right, but also between the wells between the two spacing units. So now the Paddock spacing is consistent within the proposed spacing unit and within the spacing to the south.

A. Yeah. And that -- yes, that's intentional.

Q. Okay. But the spacing in the Blinebry, okay, between the proposed spacing unit, okay, and the spacing unit to the south there's more than twice the distance between -- of that (inaudible) feet between the Upper Blinebry wells and each of those spacing units. Correct?

A. That's correct.

Q. Even though as you sit here today you just told me that between 750 and 900 feet is the ideal target that Longfellow is seeking for draining of the Blinebry.

A. Yes.

Q. And in your testimony you said that the spacing within the spacing units that you're proposing here, the spacing unit that you're proposing here of 900

feet will, quote, "maximize recovery of oil and gas," correct?

A. That's correct.

Q. But will spacing of more than 1700 or twice that 900-foot spacing, or almost twice that 900-foot spacing, will that maximize recovery of oil and gas as between the two spacing units?

A. No, there is a future nonstandard location that we would have to come through.

Q. So in order to fully drain this acreage you would have to drill not just five wells but six wells.

A. There is a sixth well that we would drill in a lot of the sections that we have adjacent to each other, but where nonstandard locations would be a challenge we are not necessarily putting them all in our first pass.

As I said, we're going to come in for what we call Bench 3 and Bench 4 pilots, and at that time we would be looking fill in those standard locations.

Q. Okay. I'm just still talking about the primary benches here. The first bench and the second bench you would need a sixth well to completely drain the Blinebry in this spacing unit.

A. To be perfectly honest, we don't know, and I don't think anyone has enough data to definitively

address what the Blinebry spacing needs to be. But if we assume that 900 is correct, then yes, a well that is essentially on the east line, the section boundary, would be needed to drain that section.

Q. Okay. Now, looking at your Exhibit -- it's the one that doesn't have a page number on it. It's right after page 8.

A. Yes, 9 and 10?

Q. Yeah, 9 and 10. I guess it's 9.

A. Okay.

Q. Where it shows Longfellow's plan.

I understood that those boxes represent an estimate of the model drainage area --

A. Right.

Q. -- for each well.

A. Okay.

Q. And in your opinion that representation on this diagram is a fair -- in your opinion a fair and accurate representation of what you expect the drainage area to be for each of Longfellow's proposed wells?

A. Yes.

Q. And I'm talking about the vertical and horizontal extents of those estimated drainages.

A. And that's effectively all it is. We have -- we model frack lengths, we model frack heights up and

down from this well center, and these boxes are essentially illustrations of those one-dimensional outputs from the model. The model is a three-dimensional or four-dimensional model. These are just illustrations of the output, yes.

Q. (Note: Pause.) Now I just want to clarify something else, as well.

I think in your testimony you're talking -- you refer again to this idea of stacking intervals, stacking these laterals.

You testified that Spur's wells are not quote, on not -- sorry, let me rephrase that.

You testified that Spur's wells are, quote, "not offset by interval but only about 100 feet horizontal offset between the Paddock and the Blinebry well laterals.

That was your testimony, right?

A. I thought I said 100 to 200 feet, but that's correct, yeah.

Q. Okay.

A. I'm not sure what page we are on here, but that's correct.

Q. I can point it out to you, but, yeah, I mean -- so I think, are you correct -- I mean I'm just asking now: Are you correcting your testimony to modify

the range of that offset?

A. They're not all equivalent, and so I apologize if I miswrote. But they are as close offset as 100 feet, and I believe the furthest apart, looking -- when we are looking at the stacked pairs, is 200 feet.

Q. Okay. Thanks. I appreciate your clarification. Thank you.

Now, you talked a little bit about Longfellow's experience in its Plan of Development in the Yeso. I understood you to say there are 17 approved horizontal wells in the immediate area. Correct?

A. That's correct.

Q. How many of those are in Yeso?

A. 100 percent.

Q. And of those 17 wells, are they all following the same spacing pattern that you proposed here?

A. No, they --

Q. Where there's three --

A. No.

Q. Go ahead.

A. There are some that are -- I believe the closest spacing pattern that we have permitted in the Paddock is, you know, I'll say 738 feet between wells in the Paddock bench. I could be off by a few feet, but I believe that's roughly the closest. They are more or

less in this 750-to-900-foot range.

Q. That's the Paddock.

A. At the Paddock level.

And then currently, because of the lack of multiple developed Blinebry laterals in the same unit, we are running with the same assumption in the Blinebry, or your Bench 2, but there could be more -- they could be tighter, actually, as we (inaudible).

Q. Okay. I'm sorry, I may have lost you there, but on the Blinebry what were the spacing patterns for these 17 wells? What did they follow?

A. They're in the 750-to-900 range.

Q. All right. So at least as you sit here today the information that Longfellow has suggests that the most appropriate spacing for Blinebry, for the Upper Blinebry bench is in the range of 750 to 900 feet. Correct?

A. When you use the term "most appropriate," that's where I disagree. But the current element that we're planning is at 900 feet, but again we are going to be gathering data, testing. We're going to try to determine what the absolute spacing is as we move forward.

Q. All right.

A. I do not believe there's enough wells drilled

side by side in the Upper Blinebry to make that determination.

Q. Okay. On the -- your testimony around Spur's existing infrastructure, I just want to touch base on a couple of those items so I understand a little better, you know, what you're talking about.

A. The first existing Spur location?

Q. No, I'm sorry, on Longfellow's existing infrastructure, your infrastructure.

A. Okay.

Q. Your testimony is that you have a 2-million-barrel produced-water storage pond that you intend to use for Longfellow's future development. Right?

A. That's correct.

Q. And it's designed and sized to recycle 100 percent of Longfellow's produced water for re-use during fracture stimulation on its proposed wells, correct?

A. That's correct.

Q. And that includes the proposed wells for the Hendrix ABX unit.

A. That's correct. We intend to use 100 percent recycled produced water for these fracks.

Q. Okay. And do you intend to use a 100 percent produced water, recycled produced water to drill and

complete the Hendrix ABX wells?

A. We do use some -- we use produced water on our existing Hendrix CD wells, so, yes, we would likely use recycled produced water for drilling of the wells, as well?

Q. But 100 percent for recycled produced water for the ABX wells?

A. More -- I can't say 100 percent. There is a likelihood we would use some fresh water blend with some of the mud additives, but I'd say in the 90s of percent.

Q. Okay. So you will likely have to -- you will blend fresh water with recycled produced water for drilling and completion of these wells?

A. So for drilling we would blend; for completion our plan is to use 100 percent produced water.

Q. When Longfellow drilled and completed its five horizontal wells in the Hendrix CD spacing unit to the south, did Longfellow use any recycled produced water?

A. No. No, we had no water production, no material water production prior to these wells coming onstream.

Q. Will these five wells in this proposed spacing unit be the first time Longfellow will complete wells using recycled produced water?

A. In this area.

Q. All right. In New Mexico.

A. Yes. I will say I worked -- in my previous company we drilled hundreds of wells and completed hundreds of wells with a 100 percent recycled produced water.

Q. Now, the impoundment, I guess -- is the impoundment a separate facility from the recycling facility or are they the same kind of facility?

A. They are on the same location but they're technically different facilities.

Q. Is the recycling and reuse facility, is that 100 percent Longfellow owned?

A. Yes.

Q. And will Longfellow be charging its working interest partners in the units for recycled produced water?

A. Yes.

Q. Do you know what the rates will be it's going to charge?

A. I believe $1 a barrel.

Q. How about for any -- you know, will there be any disposal of produced water required as a result of the development of these wells?

A. No. That's one of the benefits of recycling

is it -- I mean, ultimately down the road there will certainly be disposal, but the benefit of the recycling is it takes the burden of disposal away.

Q. So I mean of necessity you can only recycle so much, so some of this water will have to be disposed, correct?

A. The likelihood is initially we will be supplementing with fresh water. Now, the Hendrix ABX wells, I think are on the drill schedule for March of next year. At that point we should have sufficient to be 100 percent. But the likelihood is that as our water production grows we plan to increase our base of activity to stay consistent with our produced water. That's the magic behind the 2-million-barrel numbers is this: It's paced for our development.

Q. So whether Longfellow can move these goals or plans for the volumes of recycled produced water will depend on the status of its completion of production of area wells as of March, 2022. Fair to say?

A. I'm sorry, could you repeat the question?

Q. I think I understood you to say, you know, that how much produced water Longfellow will have available to it for recycling and reusing will depend on, you know, Longfellow's activity in production as of March, 2022, when the Hendrix ABX are scheduled to be

drilled.

A. Certainly the forecast production of our water is based on decline curves that are -- you know, have variability. So our water production is created on the forecast of how much water's going to go into the pit, excuse me, and then how much goes into the pit. 100 percent of what we put in the pit will be put in the ground in the fracks.

But if what you're saying is if we don't have sufficient water production, we would supplement with some kind of a blend until we, you know, again have enough wells that it's not an issue.

Q. And I guess my point is just that the forecast for recycled produced water availability really is dependent on wells that haven't been drilled yet. Correct?

A. The wells we currently drill will produce enough water to frack our next bet. The cumulative -- and these wells will produce enough to frack our next. That's a certainty.

Q. Okay. Sorry. I didn't mean to cut you off.

A. It's okay. It's all right. I'm trying to do our court reporter a favor and shut up every once in awhile.

MR. RANKIN: Let me just make sure I covered

all my questions, Mr. Mitchell. (Note: Pause.)

I think I have covered everything I wanted to cover. I have no further questions at this time. Thank you.

THE WITNESS: Thank you.

HEARING EXAMINER BRANCARD: Thank you, Mr. Rankin.

Mr. Rodriguez, are you still there? Do you have any questions?

MR.RODRIGUEZ: I am. And no, no questions from Conoco. Thank you.

HEARING EXAMINER BRANCARD: Thank you.

All right. Mr. Lowe any questions?

CROSS-EXAMINATION

BY EXAMINER LOWE:

Q. Good afternoon. I have a few questions for Mr. David Mitchell.

Good afternoon, David. How are you?

A. Good, thank you.

Q. I got a question on your -- the spacing unit that's being -- that's planned out for the Hendrix wells what is the overall acreage that the spacing unit is seeking for all the wells put together?

A. It's roughly 480 acres. It isn't on a standard unit so that will be slightly different, but

that is approximately that.

And if you think about that, it's half a section tall and 1 1/2 miles long.

Q. Okay. So I'm assuming that the north half of Section 13 is more standard, and then the northeast quarter of Section 14 is the acreage where it's a little off.

A. That's correct.

Q. Okay. And in reference to that, I noticed that your Wells Nos. 1, 2, 3, 4 and 5, are -- first of all, the pool that you're seeking for these wells have a setback of what, again?

A. On the east and west boundary from the first take point to the last take point 100 feet from the lease line, and from any lateral to the north or south boundary 330 feet is the required setback.

Q. Okay.

A. These are all compliant with that requirement.

Q. Okay. In that case, and I notice that the first take points in all your wells mentioned, the Hendrix wells, have some tolerance left to obtain more -- to be closer to that, I guess that allowable edge that you can take.

A. Right.

Q. Well No. 1 in particular has 147, 147, 147

feet from the eastern edge, and then so basically you have 47 feet that you could use to recover resources?

HEARING EXAMINER BRANCARD: Okay. I'm getting some other noise here. Is that coming from you guys? Are you all hearing that or is it just on our side? There was some music and...

EXAMINER LOWE: Yeah, I just heard that, too.

THE WITNESS: All right. As long as it's not us, that's fine.

A. Okay. So the question is why not get the first take point all the way to the 100-foot line. Is that correct?

Q. Yes, sir?

A. So one of the issues we have in, well let's just it the New Mexico in general, is the conflict between state and federal lands. And there's -- the northwest quarter of Section 14 is a federal unit, so what we would typically do is put either our service location off lease or we would backfill across that lease line to get, to capture that 50 feet that you're talking about. The fact that it's a federal acreage beside makes backfilling into the federal essentially a trespass.

So we backfill directly to the line. I think our design is to be within 10 feet of the line

just as a safety factor. And in completing in the curve, you don't want to complete too far up the curve due to well integrity, so our determination was that roughly 150 feet was the first what's called safe take point to complete the lateral on the western edge

Q. Okay. Yeah, I just wanted to get, I guess, an understanding, get an understanding of why -- where that is.

A. And Spur's proposal reflects roughly the same design. It's really that state/fed conflict.

Q. Okay. And also in the beginning of you presenting your exhibits you referenced the pond, I guess the re-used produced water pond.

A. Oh, yeah, that's right.

Q. Is that pond, is it already there?

A. Yes. On Slide 4 there is a picture of it, and those -- we built those this year. They're onstream and currently filling up with water from our Hendrix CD unit.

EXAMINER LOWE: So that's already done and going then. Okay.

That is all the questions I have. Thank you.

THE WITNESS: Thank you very much.

HEARING EXAMINER BRANCARD: Mr. Garcia, any questions?

EXAMINER GARCIA: I have one question. Can you hear me?

HEARING EXAMINER BRANCARD: Yeah.

CROSS-EXAMINATION

BY EXAMINER GARCIA:

Q. Your Hendrix CD wells, was the stimulation also a 90-barrel-per-foot?

A. Yes.

EXAMINER GARCIA: Okay. Really that's all the questions I had for now.

HEARING EXAMINER BRANCARD: Thank you.

Ms. Shaheen, any redirect?

MS. SHAHEEN: I do not have any redirect for Mr. Mitchell.

HEARING EXAMINER BRANCARD: Well, I think we may be done with Mr. Mitchell. Were you going to hold him for rebuttal?

MS. SHAHEEN: Yes, I may call him back for rebuttal.

THE WITNESS: I'll be available.

HEARING EXAMINER BRANCARD: Thank you very much.

MS. SHAHEEN: Thank you, Mr. Mitchell.

HEARING EXAMINER BRANCARD: I think you're done for the day.

(Note: Discussion off the record.)
HEARING EXAMINER BRANCARD: Okay. I think we're looking at coninuing this case tomorrow morning, and I'll throw that out to the parties. I don't see us finishing up today.
So we could start with Mr. Rankin's case tomorrow.
MR. RANKIN: Mr. Hearing Examiner, I think that is a good move. It's a natural breaking point, and I suggest we take a break and resume with our direct case. I will have three witnesses in the morning.
HEARING EXAMINER BRANCARD: Ms. Shaheen, is that okay with you?
MS. SHAHEEN: Yes, I agree with that proposal.
HEARING EXAMINER BRANCARD: All right. And, Marlene, I know you're trying to get a Webex connection for us tomorrow.
MR. SALVIDREZ: Yes. I created the document and it will be posted on our website within 10 minutes.
HEARING EXAMINER BRANCARD: So there you go. I think it was set up for 9:00 o'clock tomorrow, if that's all right with everyone.
And have we had contact with the court

reporter?

MR. SALVIDREZ: Yes.

HEARING EXAMINER BRANCARD: Okay. So hopefully we will have somebody here, maybe Ms. Macfarlane, I'm not sure, tomorrow morning. Anything else from the parties at this time? Otherwise, we can continue this to tomorrow morning at 9:00 a.m.

MS. SHAHEEN: Sounds good. Thanks to everyone for their patience here, and attention.

HEARING EXAMINER BRANCARD: Thank you. All right. So then tomorrow morning at 9:00 a.m. we will resume. Be there or be square.

(Note: Hearing adjourned at 5:07 p.m.)