STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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

APPLICATION OF CHISHOLM ENERGY OPERATING, LLC FOR A NONSTANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

CASE NOs. 16115, 16116

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

May 3, 2018

Santa Fe, New Mexico

BEFORE: MICHAEL McMILLAN, CHIEF EXAMINER
SCOTT DAWSON, TECHNICAL EXAMINER
DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, Michael McMillan, Chief Examiner, Scott Dawson, Technical Examiner, and David K. Brooks, Legal Examiner, on Thursday, May 3, 2018, at the New Mexico Energy, Minerals and Natural Resources Department, Wendell Chino Building, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.

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EXHIBITS OFFERED AND ADMITTED

(2:01 p.m.)

EXAMINER McMILLAN: I would like to call Case Number 16115, application of Chisholm Energy Operating, LLC for a nonstandard spacing and proration unit and compulsory pooling, Eddy County, New Mexico. This will be combined with Case Number 16116.

Call for appearances.

MR. RANKIN: Mr. Examiner, Adam Rankin, from the Santa Fe office of Holland & Hart, appearing on behalf of the Applicant, Chisholm Energy. I have two witnesses for the direct testimony today.

EXAMINER McMILLAN: Any other appearances?

MR. PADILLA: Mr. Examiner, Ernest L. Padilla of Santa Fe, New Mexico for Premier Oil & Gas, Inc. And I have two witnesses to be sworn.

EXAMINER McMILLAN: Do we have any pre-hearing statements or --

MR. RANKIN: Well, I think I would like to make a short opening statement.

EXAMINER BROOKS: Is this the case that we had the legal issue arise?

MR. RANKIN: Yeah. My preference, Mr. Examiner, would be, if we could, to try to resolve the pending motion to dismiss before we have opening statements.

EXAMINER McMILLAN: Okay. Just so you'll know, I'm the hearing examiner, but it's a legal question, and I will -- and David Brooks is going to make the decision.

EXAMINER BROOKS: Well, if one is made. I mean, the director will make a decision. I can't make a decision from the bench to dismiss because if I did, it would just be to send it to the director to approve an order. And only the director has the authority to directly dispose of motions. But I would like to hear argument on it. It sounds like an interesting question, but I need to know -- I need to know the background facts that affect it in order to be able to understand it.

MR. RANKIN: I understand.

It's Premier's motion, Mr. Examiner, so I guess I would ask that they make their opening argument, then I'll be happy to respond.

EXAMINER BROOKS: Very good.

MR. PADILLA: First of all, let me start out by saying that a couple of years ago, I was here with the same kind of issue, where there was -- I had filed applications on behalf of Lime Rock Resources, and Mewbourne came up with a 39-year-old joint operating agreement. At the end of the day -- well, they filed --

Mewbourne filed a motion to dismiss. And at the end of the day, I was told to go to court to determine whether or not the joint operating agreement was still in force or whether it was applicable.

We, of course, proffer the conservation laws of the state, and compulsory pooling has been done by Chisholm in this case.

Lime Rock, in those four cases, decided that they would go deal with Mewbourne and see how they would voluntarily agree to drill the wells. So we didn't go to court, but that was the remedy that was given to us at that time.

Now, looking at this case -- and Mr. Rankin was very kind about giving me what he believes to be a decisive in terms of a decision that has been rendered by the Oil Conservation Division in Case 15433 and Order R-14410. There is a big difference in that case because that case involved the Bone Spring application. The spacing in that case was 160 acres, and really, at that point, with horizontal drilling, you want to line up four 40s. And one of the interest did not have -- was not covered by the contract area in the joint operating agreement in that case.

In this case we don't have a problem. In this case Chisholm is trying to put together,

essentially, two half sections for the Wolfcamp, line them up and say: We've got -- we propose to drill this well, and we're the operator. We want to be the operator, and we're going to the Oil Conservation Division to get around the joint operating agreement because it just simply isn't applicable, as far as I read the responses, that the conservation laws trump a contract.

EXAMINER BROOKS: Well, let me ask you because I'm not familiar with the facts of this case: Is the entire area that Chisholm proposes as their project area covered by the joint operating agreement?

MR. PADILLA: The entire Section 31 is covered and Section 6 below -- or the east half of Section 6 below Section 31 is not covered by the joint operating agreement.

EXAMINER BROOKS: Is not covered?

MR. PADILLA: It's not covered.

EXAMINER BROOKS: Okay.

MR. PADILLA: What is covered is the east half of Section 32 in the joint operating agreement.

EXAMINER BROOKS: And let's see. 31 is going up toward 36, and the east half of Section 32, you say, is covered.

MR. PADILLA: East half of Section 32 --

west half. Let me -- I should --

EXAMINER BROOKS: Yeah. A picture is worth a thousand words. I would really rather have a picture than a thousand words.

MR. PADILLA: Let me hand you a joint operating agreement which has the contract area. Those are unexecuted copies, but the one Mr. Rankin has provided is executed. It's the same agreement.

MR. RANKIN: Ernie, do you have a copy?

MR. PADILLA: Oh, I'm sorry.

MR. RANKIN: That's all right. Appreciate it.

MR. PADILLA: So what we have here is all of Section 31 is covered by the joint operating agreement. All the parties here are bound by --

EXAMINER BROOKS: All of Section 31 and the west half of Section 32, right?

MR. PADILLA: Correct.

EXAMINER BROOKS: Okay. Go ahead.

MR. PADILLA: Now, there is a difference as to how Chisholm wants to drill its well, two-mile lateral. They want to go north-south. Premier wants to go east to west. And we'll get into that aspect of the cases. But the short of this is you have a contract that covers -- that defines both parties, and it covers

all of Section 31. Premier has offered to amend the operating agreement and go east-west. That's been denied. But besides the east-west controversy or the dispute over north-south, the main thing is that in this business and in other businesses, there are contractual relationships between parties, and you have to abide by the contracts.

For example, compulsory pooling provides for risk penalty assessments. If you look at any JOA, they're there in the COPAS portion of it. It's in this one. And there is room for disagreement. When you disagree on a contract, you go to court or you mediate or you do something else. You don't try to intervene or use the Oil Conservation Division to get your remedy. That's not the remedy when you have a contract. Now, if this JOA was not here, I wouldn't have any problem with the Oil Conservation Division deciding the case from A to Z.

In this case you have the joint operating agreement, and you have an application that asks for all kinds of exceptions. We have, essentially, two half sections lined up for the Wolfcamp and four or eight 40s for Bone Spring. And so -- now, with that goes an unorthodox location, unorthodox nonstandard proration units and so on. So to some extent, the OCD approves

those. But in terms of being bound by this contract, you have -- you can't just simply ignore the contract and say, "We're going to the OCD and let them assume jurisdiction in this case because Premier doesn't want to listen to anything we want to do.

And in their response, Mr. Rankin stressed that it's important that the Division has no authority or jurisdiction to determine or adjudicate the rights and obligations of parties in the JOA. That is absolutely correct. The Division does not have authority to adjudicate and interpose some notion that it has jurisdiction because somebody files an application, all of which requires approval of nonstandard proration units, nonstandard locations and nonstandard -- well, everything about the application is nonstandard.

Now, this prior case that the Division ordered, where it denied the motion to dismiss, it is a 160-acre spacing case. That's what the Bone Spring all over southeast New Mexico covers, 160 acres. Now, if you line that up on four 40s, then that becomes nonstandard. But I can understand the Division's reasoning in this 160-acre decision.

But here we have a two-mile -- a two-mile lateral, and it's entirely different. It's now

different. And when you have something in a 160 and 40 of those acres are not within the JOA, then I can see where there would be some authority. And the rule of capture in that case said, "Well, it's not applicable." Well, I agree. There are some Texas cases that are cited in this decision of the Division, but I don't see how it applies in this case where you have a full section of land that covers 160 acres or a full proration unit, and you simply can't ignore the JOA and then come here to the OCD and say, "Oh, but the JOA makes everything sufficient to the -- to the conservation laws." Well, it is subject to conservation laws, but you still have the main contract. You have the defined contract area, and here there is just no -- it's front and center and just simply saying, "No, that doesn't apply to this case because they don't agree to drill this well." There's got to be some other remedy.

So we ask that the motion to dismiss be granted.

EXAMINER BROOKS: Mr. Rankin.

MR. RANKIN: Thank you, Mr. Examiner.

If I may approach, I have a copy of the cases I circulated last night, which I'd like to walk through with you. Do you have a copy already?

EXAMINER BROOKS: I'm not sure. Somebody

handed me some things, Case Number 15433, Order Number 14140.

MR. RANKIN: That's the one. And I have one that's marked up. If you want to follow with me, I have one that's marked up.

EXAMINER BROOKS: Okay. Well, if you marked it up constructively --

MR. RANKIN: I'd like to think so.

EXAMINER BROOKS: -- we should show Mr. Padilla a copy of your markups so he can make sure you didn't emphasize everything except not somewhere.

MR. RANKIN: Totally acceptable.

I'll now mark this as an exhibit, so I guess I would ask that we mark it as Exhibit Number -- Chisholm Exhibit Number 13, since it has my markings on it.

(Chisholm Energy Operating, LLC Exhibit Number 13 marked.)

EXAMINER BROOKS: Go ahead.

MR. RANKIN: So, Mr. Brooks and Mr. Examiners, the issue, as Mr. Padilla has framed it, is that really -- and as outlined in his motion to dismiss is that there is no dispute. What's front and center in the JOA and what they have said is that there is no dispute about the contract area that's subject to

the JOA. It's Section 31. However, the spacing unit at issue here is the either the east half of Section 31 for the Wolfcamp; Purple Sage spacing unit, which extends Down into the east half of Section 6 to the south, in the one case, or the east half-east half of the Bone Spring in Section 31 down to the east half-east half of Section 6 in the Bone Spring. There is no dispute that the contract area under the JOA, under which the parties are both joined, is limited only to the Section 31.

Therefore, there is no dispute that there is no agreement with respect to the spacing agreement or combining the interests in Section 31 within the proposed spacing units that are proposed for Sections 31, 36.

So those are the key facts ultimately.

And there is no -- there is no agreement between Premier and Chisholm, as Applicant, to combine the interests within Section 31 within the spacing units proposed at all. And what I've circulated to you is a copy of Case Number 15433 and Order Number 14140, which is an entirely analogous circumstance. Mr. Padilla was seeking to distinguish the case of the facts, but, in fact, there is no distinction.

In the case that I circulated, the facts are that Matador was seeking approval of a 160-acre

nonstandard spacing unit for the Bone Spring. There was in existence a JOA which covered the north half of that proposed spacing unit. It did not include the south half of that spacing unit. The parties to this case, Matador, on the one hand, the Applicant, and Mewbourne, the opponent on the other, had a JOA in place only for the north half of that spacing unit, not for the south half of it. Accordingly, as the decision holds, there was no agreement to pool or combine the interests in the north half with the interests in the south half.

That is no different than our situation here where there is a JOA -- and I may have had my north and south mixed up in the case. I think the agreement was in the south half and not the north half in this case. But there is no difference between our circumstance where there is an agreement for the north half of the proposed spacing units and no agreement in the south half of the spacing units.

As in the case before you, I'm reviewing the hearing held, and I'll point out to the language. The key issue is that we're looking at a horizontal well, and the horizontal well would be developed in the proposed spacing unit. It's across both sections, Section 31 in the north and Section 6 in the south, in our case.

And in the case at issue here that I'm reciting for you, there was a proposed horizontal well in the north half of the Bone Spring spacing unit where there was a JOA in existence into the south half of the proposed where there was no JOA, and the parties disagreed about combining those interests together.

The Division ruled that as a consequence, because there was no agreement in place, to combine the JOA interests in one side with the spacing unit into the other half of the spacing unit. Compulsory pooling was entirely appropriate and necessary in order to develop the proposed wells. And that's exactly the situation here, a JOA, which the contract covers -- contracts the parties to the north portion of the spacing unit in Section 31. And there was no agreement among the parties in Section 6.

And so as a consequence, Chisholm has sought to pool the interests from the north half of their proposed spacing units in Section 31 within the spacing units interests in the south half as well. And according to the rationale and the reasoning behind this recent Division order, compulsory pooling is necessary in order to combine all those interests on an acreage basis within the spacing units as proposed. Otherwise, you're left with a situation where potential waste will

ensue.

There is no dispute among the parties that a two-mile well is the most efficient and effective method of developing this area. The only dispute is whether or not it should be east-west or north-south. And in our view, Premier is seeking to use it in a JOA as a basis for making the contention that only east-west well is appropriate. Either way, the JOA does not accommodate a full two-mile lateral, and it would need to be modified if there were to be a joint agreement. Otherwise, the parties seeking to drill a well would have to seek authority to do so under a compulsory pooling order. And that's fully within the Division's authority to rule and order.

So with that, Mr. Brooks and Mr. Examiners, I think that this case I've circulated is fully on point and suggests quite clearly that the Division has full authority to pool in a situation where a JOA does not fully encompass the proposed spacing unit and only a portion of it, and it's necessary to pool to combine that interest with the other half of the spacing unit. And the facts are no different and the outcome should be no different than the case that I've just circulated.

Under the statute, we have exactly what the statute envisions, which is multiple tracts within a

proposed spacing and proration unit that are not combined voluntarily, and under the statute, it gives the Division authority to pool those interests within the spacing unit. So I ask Mr. Brooks and Mr. Examiners, that the motion be dismissed and that Chisholm be permitted to proceed with its application to pool.

I will point out, in any event, that whether or not the application is dismissed -- I would point out that if the application -- if their motion were granted, it suggests to us -- and I think I would ask that in the ruling so holding provides -- that it simply means that Chisholm would then oppose the well under the terms of the JOA, and if Premier were to disagree with the proposal -- Chisholm, in this case, is the operator of the JOA in Section 31. If Premier were to disagree and decided to go nonconsent with the proposed north-south well, that then Chisholm would be permitted to drill the well under the terms of JOA with Premier as a nonconsenting party. Either way, Chisholm is permitted to drill the well, whether it's under a pooling order or under the terms of the JOA.

So with that, Your Honor, I think -- "Your Honor." I'm sorry -- I'm used to being in court.

EXAMINER BROOKS: Formerly honorable.

MR. RANKIN: You're still honorable. You're still honorable (laughter).

Again, I would just ask that -- in order to speedy -- to quicken the pace of this hearing, we ask that this motion be granted -- denied at this time so that we can eliminate this portion of the issues from the presentation of the case.

EXAMINER BROOKS: Well, I think that the best thing to do is to carry the motion with the merits and proceed to hear the evidence, because, one, that way we'll have the evidence heard if we decide to overrule the motion, and, second, the evidence should show a lot -- should show the situation more clearly.

I will ask, though: You said a two-mile well was appropriate -- appropriate way to develop this area. Do you intend to introduce expert testimony to that effect?

MR. RANKIN: We do. I'll say that that issue is -- that question of fact issue is not determinant of this motion to dismiss. However, those facts will be developed.

EXAMINER BROOKS: That's likely true, but we have to determine what is determinative before we can determine the motion. And, of course, like I said at the beginning, it's really the director to make that

call based on whatever advice we give her or rejecting whatever advice, if she thinks that's the appropriate course also.

So I will recommend to the Examiner that you proceed with the hearing on the merits, and if this case is taken under advisement, then the matter of the motion to dismiss will be presented to the director, along with whatever recommendation is made by the Examiners.

MR. RANKIN: Thank you, Mr. Examiner.

With that, may I take a short break --

EXAMINER BROOKS: You may.

MR. RANKIN: -- before I start presenting the merits of the case?

EXAMINER BROOKS: Yeah. I think a short break is in order for all of us.

EXAMINER McMILLAN: Okay. We'll take a ten-minute break.

(Recess, 2:30 p.m. to 2:49 p.m.)

EXAMINER McMILLAN: I'd like to call the hearing back to order in Case Numbers 16115 and 16116.

Please proceed.

MR. RANKIN: Thank you.

(Mr. Sullivan, Mr. Roth, Mr. Huling, Mr. Ken Jones and Mr. Daniel Jones

sworn.)

MR. RANKIN: I'd like to call my first witness.

BEAU SULLIVAN,

after having been first duly sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Sullivan, would you please state your full name for the record?

A. Beau Sullivan.

Q. By whom are you employed and in what capacity?

A. Chisholm Energy, and I'm a landman.

Q. Have you previously testified before the Division?

A. Yes, I have.

Q. And have you had your credentials as an expert in petroleum land matters accepted and made a matter of record?

A. I have.

Q. Briefly, will you just state or summarize for the Examiners your background, your education and then your relative work experience as a petroleum landman and in what basin you've been operating in?

A. Sure. I received a Bachelor of Business

Administration from the University of Central Oklahoma in 2006. I've been working as a petroleum landman since that time.

I currently work for Chisholm Energy, working the Delaware Basin in New Mexico, Lea and Eddy Counties.

Prior to that, I worked for Range Resources for approximately five years, worked in the Mid-Continent Division, which is Oklahoma, southern Kansas and the Texas Panhandle. And prior to Range, I worked for Marathon Oil Company in the Anadarko Basin of Oklahoma, essentially what's now known as the SCOOP & STACK. Before Marathon, I worked in the field as an independent petroleum landman. I worked the Fayetteville Shale, the Haynesville Shale, Arkoma Basin in Oklahoma, Anadarko Basin, Miss Lime [sic; phonetic] play, and the Texas Panhandle.

Q. Do your responsibilities at Chisholm currently include the southwest -- I'm sorry -- the southeast corner of New Mexico and the Permian Basin?

A. Yes.

Q. Are you familiar with the two applications that are filed in these consolidated cases?

A. I am.

Q. Have you conducted a study of the lands and the

affected parties who are subject to this pooling -- these two pooling applications?

A. I have.

MR. RANKIN: Mr. Examiner, I would tender -- retender Mr. Sullivan as an expert in petroleum land matters.

MR. PADILLA: No objection.

EXAMINER McMILLAN: So qualified.

Q. (BY MR. RANKIN) Mr. Sullivan, turning to the exhibit packet that's in front of you, will you please review for the Examiners what's been marked as Exhibit Numbers 1 and 2? And as you do so, just recite for the Examiners what Chisholm seeks with these two applications.

A. Sure. Exhibit 1 involves Case 16115. Chisholm is seeking to create a 640.31-acre nonstandard spacing and proration unit covering the Purple Sage; Wolfcamp. That would consist of the east half of Section 6 in Township 23 South, 26 East and the east half of Section 31 in Township 22 South, 26 East.

We're also seeking to pool uncommitted interests in this proposed unit, and we would like to dedicate the unit as the project area for our Ocotillo 6 31 State Com WCB #2H well.

Exhibit 2 involves Case 16116. Chisholm is

seeking to create a 320.1-acre nonstandard spacing and proration unit as to the Bone Spring. This would consist of the east half-east half of Section 6, 23 South, 26 East, the east half-east half of Section 31, 22 South, 26 East, all in Eddy County. And, again, we're seeking to pool the uncommitted interest and dedicate this unit as the project area for our Ocotillo 6 31 State Com 3BS 4H well.

We're also asking that Chisholm be designated of the wells and units.

Q. Now, Mr. Sullivan, just for clarification, in Exhibit 1, that is your well proposal and well that would be seeking to develop the Wolfcamp Formation; is that correct?

A. Exhibit 1 is the approved C-102 for the Wolfcamp well, correct.

Q. And has there been a pool that has been assigned to that area?

A. Yes. It is the Purple Sage; Wolfcamp, and it has a pool code of 98220.

Q. And the spacing for that area is on 320 acres; is that correct?

A. That's correct.

Q. And you're seeking to combine two standard 320 spacing units to form one standard 640-acre unit, more

or less, correct?

A. Correct.

Q. And in Exhibit 2, that acreage there in that second case, is that dedicated -- been assigned a pool already by the Division?

A. Yes. It's a Bone Spring Pool, and the pool code is 98056.

Q. And that pool is a Bone Spring Formation; is that correct?

A. Correct.

Q. And that is based on 40-acre spacing; is that right?

A. Right.

Q. And I think you already recited, it's a 320, more or less, nonstandard spacing unit, correct?

A. Correct.

Q. And the wells that you've identified and propose to drill, they are the subject in both cases to 330-foot setbacks; is that right?

A. That's correct.

Q. And will the completed interval of both wells be within the required setbacks under both -- in both pools?

A. Yes.

Q. So there is no nonstandard location or

unorthodox location with respect to either of these two wells; is that right?

A. That's correct.

Q. Now, have you undertaken a study of the interest owners in the spacing unit --

A. I have.

Q. -- that you've proposed for both of these cases?

A. Yes.

Q. And is that analysis reflected in your Exhibit Number 3?

A. Yes.

Q. Will you review for the Examiners what that shows?

A. The first two pages are just plats depicting -- the first, in Case 16115, shows you that Tract 1 that we're calling the east half of Section 31. Tract 2 is the east half of Section 6. That's our 320-acre Wolfcamp spacing to create our 640-acre unit.

The second plat, Case 16116, shows Tract 1 being the east half-east half of 31 and the east half-east half of Section 6.

Q. And while we're on that, the depictions of the tracts, will you just review for the Examiners what the status of these lands are? In other words, are some of

them fee, state, federal? What is the nature of the lands at issue here?

A. This is all state land, two state leases.

Q. So it's two separate state leases, one in Tract 1 in 31 -- Section 31 and one in Tract 2 in Section 6; is that correct?

A. That's correct.

Q. Is any of this acreage under an existing JOA?

A. Yes. There are two separate JOAs.

Q. And with respect to Section 31, is the JOA -- is that under a JOA to which Premier is a party; is that correct?

A. Yes, that's correct.

Q. Is Premier a party to a JOA in Section 6?

A. No, they're not.

Q. Now, moving on, you've identified the interest ownership of all the parties within these proposed spacing units; is that right?

A. (Indicating.)

Q. And are those reflected on the next page of this exhibit?

A. Yes, page 3.

Q. Will you review that for the Examiner, please?

A. Tract 1, which would be your east half of Section 31, you can see there that Chisholm owns 65

percent; McCombs, 15 percent; Premier Oil & Gas, 20 percent.

Tract 2 would be your east-half of Section 6, Chisholm, 50 percent; POGO, 32.5; and Penroc, 10 percent; Desert Production, 7.5 percent. And, again, the ownership is alike, so between the east half of Section 31, it'll be the same. I only listed it once. The east half of Section 6 will be the same.

Q. And on your last page of that exhibit, have you identified the parties that -- the working interest owners that you're seeking to pool?

A. Yes.

Q. And which are those?

A. In each case it's the bold party, Premier Oil & Gas.

Q. So the only working interest that you're seeking to pool in both spacing units is Premier?

A. That's correct.

Q. You have received commitments and approvals from all the other parties in the spacing units and have committed their interest to both wells?

A. Yes. All the other remaining 90 percent is committed in each unit.

Q. Okay. So you've got 90 percent of the working interest owners who have agreed to both wells; is that

right?

A. Correct.

Q. Now, are there any overriding royalty interest owners that you identified in these two spacing units?

A. There were three overriding royalty interests that were created by these state leases, which typically we would add to a pooling. However, there were provisions in the assignment that created the interest that specified that they didn't need joinder or ratification of the pooling.

Q. Now, with respect to the parties that have committed to the unit, both -- and to Premier, did you issue well proposals for the two wells that you're seeking to designate each of those spacing units?

A. Yes.

Q. And are those reflected in Exhibits 4 and 5?

A. Yes.

Q. What date did you send those well-proposal letters to the parties that you're seeking to pool?

A. They were dated February 14th. They were actually mailed February 15th, certified mailing, of this year.

Q. And did you include an authorization for expenditures, an estimate of well costs, for each of three wells when you sent out this well proposal?

A. We did.

Q. And is that included as a second page in each of these exhibits, Exhibits 4 and 5?

A. Yes.

Q. What are the costs estimated for each of these wells?

A. For the Wolfcamp well, the total cost is $7,243,708. For the Bone Spring horizontal, $6,380,776.

Q. And are these costs reflected on the AFEs consistent with the cost of wells in similar -- similar laterals and similar lengths that Chisholm has drilled in this area?

A. Yes.

Q. And do the well-proposal letters also reflect an estimate -- rather, a cost for -- administrative costs while drilling and overhead while producing these wells if successful?

A. They do. Yes.

Q. What are those?

A. It's $7,500 while drilling, $750 per month while producing.

Q. And are those overhead costs commensurate with what other operators are charging for drilling two-mile wells in the Wolfcamp and the Bone Spring in the area?

A. Yes.

Q. Now, in addition to these well-proposal letters, the only party you're seeking to pool here is Premier; is that correct?

A. That's correct.

Q. So in addition to these well-proposal letters, what other -- have you undertaken any other efforts to reach an agreement with Premier?

A. Yes. We've had, as far as correspondence, multiple calls, emails. We've had at least two technical calls with each team, my team and their team. We've also had them in our office for a sit-down. As to the negotiations, we sent our proposed JOA covering the entire contract area with each well proposal. We also offered an option to farm out -- negotiate a farm-out under that letter. Subsequent to that, we offered a cash purchase, which Premier did counter but later revoked. That's about it.

Q. When were the last -- when were the last correspondence or communications you had with Premier regarding potential resolution of their disagreement over these proposals?

A. It would have been last week.

Q. Okay. And you mentioned that Premier had offered a counter, but it had -- which had been revoked. Do you understand what the basis of the revocation was?

A. The email that was sent to me stated that they were revoking it based upon Mewbourne's Ghostrider well, which is approximately five miles from where our proposed locations are.

Q. Do you have an understanding of what Premier's disagreements were with Chisholm's proposals?

A. In our final correspondence, their disagreements were orientation, and then they claim that the existing operating agreement should govern.

Q. Okay. And with respect to orientation, have they indicated to what their preferred orientation would be?

A. Yes. They're very clear. They want east-west.

Q. And you mentioned they had revoked their counteroffer based on the Ghostrider well. Where is that well?

A. It's five miles essentially southeast, I believe, of us, in 23 South, 26 East.

Q. And is your understanding that revocation was because of the quality of that well?

A. The email said they revoked it based upon the -- based upon the Mewbourne Ghostrider well, that their previous counter was no longer available.

Q. They indicated to you that they thought that because that well had done so well, that their offer was

too low based on the production from that well; is that right?

A. That's how I understood it.

Q. That's how you understood it?

A. Yes.

Q. Now, can you tell me a little bit about that well? Is it an east-west well, or is it a north-south well?

A. No. It's a two-mile, north-south Wolfcamp well.

Q. Okay. So it's oriented the same way that Chisholm is proposing, right?

A. Correct.

Q. Now, with respect to Chisholm's preferred orientation, you're not a geologist, and that's not your bailiwick; is that right?

A. That's correct.

Q. So you worked with your geologist at Chisholm to identify the preferred -- he tells you what the preferred orientation is, and then you go out and try to identify and purchase the land to accommodate that orientation; is that right?

A. That's correct.

Q. So in this case, you were told by your geologist to try to find a two-mile acreage to

accommodate a two-mile well in a north-south orientation?

A. Actually, the geologist picked the location. They have our land maps. They understand where our position is. So they actually pick the locations, and then we handle the contractual side of putting the wells together.

Q. And Chisholm has a geologist who will testify about the preferred orientation; is that right?

A. Yes.

Q. We'll address that issue later.

Now, I want to make sure I cover the JOA issues here. You previously testified that there are two JOAs that cover portions of the acreage that you're seeking to pool; is that correct?

A. That's correct.

Q. And one JOA to which Premier is a party has a contract area that includes Section 31; is that right?

A. It includes, yes, and the west half of Section 32 as well.

Q. Okay. So Section 31 and the west half of 32, both Chisholm and Premier are parties to that JOA?

A. Yes.

Q. And there is another JOA. What is the contracted area for that JOA?

A. The contract area is the east half of Section 6.

Q. Okay. And is Premier a party to that JOA?

A. No, they're not.

Q. And is there a voluntary -- is there any kind of agreement or voluntary agreement among all of the working interest owners who would comprise an interest in the proposed spacing units in both these cases?

A. No.

Q. To -- to combine their interests within the spacing units that you have proposed for both cases?

A. No, there is not.

Q. So for that reason, are you seeking to pool all those interests into the spacing units so they are into one unit?

A. Yes.

Q. And is it your understanding that you cannot proceed to drill a well until all interests are combined into the spacing units either voluntarily or by compulsory pooling?

A. Correct.

Q. And has Premier refused to consent to combine their interest in Section 31 into the spacing units that you have proposed?

A. Yes.

Q. And for that reason, you're seeking to combine their interest, are you not, into the two proposed spacing units that would cross Section 31 and Section 6?

A. That's correct.

Q. And are you aware of any -- now, with respect to the JOA that you're a party to with Premier, are you aware of any provisions that restrict your ability to drill outside of the contract area?

A. No.

Q. Are you aware of any provisions within the JOA that you're a party to with Premier that otherwise would prevent you from proposing a well that would include a portion of the contract area and extend it across that area outside of the contract area?

MR. PADILLA: Objection. That leads -- he's asking for a legal conclusion and --

EXAMINER BROOKS: Well, the best evidence of the provisions of the joint agreement would be the agreement itself, and I assume somebody will put that into evidence.

MR. RANKIN: I think Mr. Padilla has already admitted it into the record.

Is that correct?

If not, I'd be happy to do it.

MR. PADILLA: We have it as Exhibit Number

2 to the motion to dismiss.

(Premier Oil & Gas, Inc. Exhibit Number 2 to the Motion to Dismiss, identified.)

EXAMINER BROOKS: Okay. Good. Thank you. I'll sustain the objection on best evidence grounds.

MR. RANKIN: Okay.

Q. (BY MR. RANKIN) Okay. Well, with respect to the parties now that you have identified as pool parties, is it your opinion that you undertook a good-faith, diligent effort to reach agreement with Premier as to your proposals in these cases?

A. Yes.

Q. Did you also identify -- in addition to the working interest owners within the acreage that you're seeking to pool, did you also identify the offsetting operators and mineral lessees in each of the spacing units surrounding both of these proposed spacing units you've got for these cases?

A. Yes.

Q. And in your opinion, did you undertake a good-faith effort to identify correct addresses for all the offset parties?

A. Yes.

Q. Were there any unlocatable interests with

respect to those offsets?

A. No.

Q. Is Exhibit Number 6 -- rather, Exhibit Number 7 a copy of the affidavit prepared by my office, signed by me reflecting that we have sent notice of this pooling application to all the offsetting operators and mineral lessees, parties that are subject to this pooling proceeding?

A. Yes.

Q. And are the subsequent pages copies of the United States Postal Service tracking data sheet reflecting that all those parties did receive notice or that some of their -- with respect to the offsets, that some of their -- notice was still in transit or they have not yet signed or that they may have signed yet for the notice; is that correct?

A. That's correct. We didn't receive any returns. They were either received or they were still showing as in transit.

Q. And did -- were those parties also identified by name in the Notice of Publication, which is reflected in Exhibit Number 8?

A. Yes.

Q. And so Exhibit Number 8 contains the names of all the offsetting interest owners, mineral lessees, as

well as the parties that you're seeking to pool who are in attendance today, correct?

A. Correct.

Q. Mr. Sullivan, did you prepare or oversee the preparation of Exhibits 1 through 8?

A. Yes.

MR. RANKIN: Mr. Examiner, I'd move the admission of Exhibits 1 through 8 into the record.

MR. PADILLA: No objection.

EXAMINER McMILLAN: Exhibits 1 through 8 may now be accepted as part of the record.

(Chisholm Energy Operating, LLC Exhibit Numbers 1 through 8 are offered and admitted into evidence.)

EXAMINER McMILLAN: Pass the witness.

CROSS-EXAMINATION

BY MR. PADILLA:

Q. Mr. Sullivan, when did Chisholm obtain its interest in Sections 31 and 36 -- I mean 6?

A. It would have been our Resource Rock acquisition, which I believe closed in January of this year.

Q. And how long did it take you to make this well proposal after it closed?

A. Not very long, couple of weeks.

Q. During that time, do you know whether you conducted any studies to -- on orientation of the wells?

A. I'll defer that to our geologist who will testify about his --

Q. My question was: Do you know? If you don't know, you can say, "I don't know."

A. I know that I've been informed that we have. Yeah.

Q. You've been informed that you conducted studies or that you obtained studies?

A. We have conducted our own study.

Q. You testified that you had, if I recall, I think maybe two meetings with the Premier people?

A. We've been in contact with them pretty continuously. We had two calls, our team and their team, and we had one sit-down meeting with them.

Q. In the sit-down meeting that you had, did you provide any information for Premier about well orientation?

A. I didn't. That falls out of my area of responsibility.

Q. Were you present at the meeting?

A. I was.

Q. Did you see anything in terms of technical data that was given or showed to Premier to demonstrate that

east-west or north-south is better?

A. I don't recall.

Q. In one of your emails to Mr. Jones, Ken Jones, you said something to the effect that the science requires north-south-oriented wells. Do you recall that email?

A. I do.

Q. What science were you referring to when you said that?

A. I was relying upon information from our geologist. I was forwarding that message.

Q. Do you know whether that science -- how that science would be demonstrated?

A. I don't know. As a land professional, no.

Q. In your communications with your technical people, were you informed of any core data or anything of that nature that would support your case for a north-south-oriented well?

A. I don't think I'm the proper -- appropriate witness to testify to that.

Q. I'm not asking you about the technical data. I'm asking you whether you saw anything that would support your case for a north-south-oriented well?

A. I didn't see it. I don't evaluate those things.

Q. Now, looking at your exhibit -- the fourth page of Exhibit 3, if you oriented your well east-west -- or both wells, would that diminish your interest in the wells?

A. Could you repeat the question, please?

Q. If the wells were oriented east-west, would your interest be diminished?

A. I think that that depends on the length of the lateral.

Q. Well, assuming it's a two-mile lateral and let's just say that you dedicate the north half of Section 32 and the north half of Section 31 to your Wolfcamp well. Would those figures change for you?

A. Would these figures change?

Q. Yes.

A. Yes.

Q. It would make your interest smaller; isn't that correct?

A. No. I would have to recalculate it, but I don't believe so.

MR. PADILLA: That's all I have for Mr. Sullivan.

CROSS-EXAMINATION

BY EXAMINER McMILLAN:

Q. I wasn't clear on your answer. If you drill a two-mile, east-west lateral, will your interest change?

A. It probably will change. I would have to study the ownership in the east half of Section 32. Let me make sure we're saying the same thing. 31 and 32, correct?

Q. Yeah, a two-mile lateral.

A. Okay. I would need to research the ownership in the east half of Section 32, which I believe we own a very significant portion of, and I believe it would go up. But that being said, I don't have that information in front of me.

EXAMINER DAWSON: I have no questions.

EXAMINER BROOKS: I have no questions.

MR. RANKIN: I have no more questions.

EXAMINER McMILLAN: Okay. Thank you.

Next witness.

MR. RANKIN: Thank you, Mr. Examiner. I'd like to call Chisholm's second witness, Mr. George Roth.

GEORGE W. ROTH,

after having been previously sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Roth, will you please state your full name for the record?

A. My name is George W. Roth.

Q. By whom are you employed and in what capacity?

A. I'm employed by Chisholm Energy as a senior geologist.

Q. Have you previously testified before the Division and had your credentials as an expert in petroleum geology accepted and made a matter of record?

A. I have, yes.

Q. In the interest of -- for Mr. Padilla's benefit, will you please briefly recite your background -- educational background, any certifications, as well as your work experience as a petroleum geologist?

A. I have a Bachelor of Science degree in Geology from the State University of New York in 1974. I began my career in 1975 with Cities Service in the Rockies. And since that time, nearly 42 years, I've been employed in the oil and gas industry by W.R. Grace, Kenai, Hunt Oil Company, recently Range Resources, Burnett Oil Company and now Chisholm.

Q. And in that experience as a petroleum geologist, how many years have you focused your work on the Permian Basin in New Mexico?

A. The only company that I worked for in that period of time that did not have interests in the Permian Basin, that I did not work, was Cities Service. Every other company I worked for -- the two years I worked for Cities, they didn't have any interest in the Permian, or I didn't work on them. All the other companies, for 40 years, I was exposed to the Delaware and Midland Basins. Not continually, but I have experience there.

Q. And how long have you been employed by Chisholm?

A. Over one year.

Q. And in that time, has your focus been on the Permian Basin in New Mexico?

A. It has been on the Delaware Basin in New Mexico in this particular area. Yes.

Q. Are you familiar with the applications filed in these two cases?

A. I am.

Q. And have you conducted a study of the lands and the geology underlying the subject or within the subject spacing units that are at issue in these two applications?

A. When I was hired by Chisholm, that was the area I was assigned to. So beginning in 2016, in April,

that's where I began working for them. So I'm very familiar with the area.

Q. And have you -- as a result of your studies, have you formed an opinion and conclusions about the applications that were filed in these two cases?

A. Yes, I have.

Q. And have you prepared a study and analysis with exhibits to present to the Examiners on the cases for your --

A. Yes, I have.

MR. RANKIN: Mr. Examiner, I would retender Mr. Roth as an expert in petroleum land matters -- petroleum geology.

MR. PADILLA: No objection.

EXAMINER McMILLAN: So qualified.

Q. (BY MR. RANKIN) Mr. Roth, just for -- to get us back on thinking below the surface, will you identify for each case the target interval at issue here?

A. There are two targets in the Bone Spring and the Wolfcamp.

Q. And have you prepared an analysis of the geology for both those formations?

A. Yes, I have.

Q. Will you turn to page -- rather, Exhibit Number 10, which is in your exhibit packet? And will you

review for the Examiners what this first exhibit shows?

A. That's a subsurface structure map on the top of the Wolfcamp Formation. It's at a 25-foot contour interval. In general, the strike of this formation is north-south, and it dips to the east into the Basin. The wells that you see highlighted there with the red number -- negative number, above that is the elevation of the Wolfcamp that those particular wells penetrated, and those wells, at least in this mapped area, are used to contour that map.

In addition to that, the red box with the text box pointing to it is the proposed unit outline, and then for the south there, that is pad designed by our operations engineers to scale where we will drill our Ocotillo wells from. Then the large letters, A, A prime, represents a three-well cross section that depicts those formations, the Bone Spring and Wolfcamp, across the area.

Q. Now, what are -- I see two little bubbles with sticks -- green bubbles with sticks. What do those represent?

A. The first one that runs east-west is a horizontal well drilled by Devon to the 2nd Bone Spring, and it's going east-west. It's their Daisy Duke well.

Q. And that would be in the same pool as the one

of the wells that you've proposed in this case. I believe it would be the 4H well, in Case Number 16116; is that correct?

A. I believe the Daisy Duke is in the 2nd Bone Spring, and the 4H is going to be the 3rd Bone Spring.

Q. So it's a different formation but both are in the --

A. Both within the Bone Spring Formation but stratigraphically quite a bit different.

Q. And tell me about the second well in here -- in your mapped area there.

A. That's also a horizontal well drilled by Devon into the 2nd Bone Spring.

Q. And were those two wells drilled at approximately the same time?

A. Approximately, yes.

Q. Okay. Approximately what year is it that they were drilled?

A. 2014, I think. 2014, I believe. Yes, sir.

Q. Now, have you prepared a cross section reflecting the analysis of A to A prime?

A. I have.

Q. And were those three wells --

(Oops, someone spilled their beverage; pause in proceedings.)

Q. (BY MR. RANKIN) So, Mr. Roth, I think I was just asking you about the three wells that you selected to construct your cross section from A to A prime. Were those three wells, in your opinion, representative of the wells and the geology in the area at issue?

A. Yes, they are.

Q. Is your next exhibit reflective of the cross section that you constructed using those three wells?

A. Yes, it is.

Q. Would you review that for the Examiners?

A. This is a structural cross section of those ASTER images. The colored sections you see are the gamma ray. I used an LAS log for that. The blue colors are the carbonates. The sands and shales and silts are in a brown color.

Starting from the top of the section, the top of the 3rd Bone Spring is identified as a sandstone, that is. Then the 3rd Bone Spring Lower is identified with a heavy red line. The top of the Wolfcamp is also identified there as the last horizon identified on there. And what's shaded in yellow is the target interval that we propose to drill our horizontal in for the 3rd Bone Spring Lower Sandstone.

Q. Just for the benefit of the audience, Mr. Roth, will you review what each of the tracts are in these

logs? I know it's a little hard to discern.

A. I'll start with the one in the middle. I'll use that one as an example because all of them are the same except for the gamma ray.

So you've got the colored gamma ray on the left-hand side of the depth track. On the right-hand side of the depth track is your resistivity. It's usually a deep resistivity. And all three logs have the resistivity on the right-hand side. All three logs have a gamma ray except for the log on the left. It doesn't have it colored, but it is a gamma ray on the left side of the --

Q. Based on your understanding -- were you involved in any discussions with Premier?

A. I was, yes.

Q. And based on your understanding, were there any concerns about your proposed interval?

A. Not that I'm aware of, no.

Q. Now, you've got -- in addition to the 3rd Bone Spring target for the 4H well, Chisholm is also proposing to develop a portion of the Wolfcamp for its 2H well; is that correct?

A. Yes.

Q. And that's reflected -- that cross section and target interval is reflected in the next exhibit, right?

A. That's correct.

Q. Will you review for the Examiners the -- what the final exhibit, Number 12, shows?

A. These are the same three logs presented, again the same structural style cross section, only it's deeper on the horizon. Starting at the top of the section, it's the Wolfcamp B1 marker, then top of target, base of target shaded in yellow. That's where we would propose to drill the horizontal target or where we would propose to drill. And then finally, the Penn Shale. The logs are same. The gamma ray is on the left of the track -- depth track. The resistivity is on the right of the depth track.

Q. And in review of the geology and the structure and the cross sections, have you identified any faulting or pinch-outs or other geological impediments or hazards that would impede full development of a two-mile lateral within the proposed spacing units in this area?

A. No, I have not.

Q. Have you identified any other risks or obstructions to development in the area for horizontal wells?

A. No, I have not.

Q. In your view, are both target zones consistent, and in your view, will they be productive across the

spacing units?

A. I believe they will be. Yes.

Q. Now, in your view, will this area and the spacing units that you propose be efficiently and economically drained and developed by horizontal wells as you have proposed them?

A. I do believe that. Yes.

Q. And in your opinion, will each of the -- will all the acreage contribute more or less equally within the standard spacing units due to production and drainage -- production in the well -- in each of the wells that you propose?

A. Yes, they will.

Q. I want to talk a little bit about orientation. In your opinion, Mr. Roth, have you determined that the north-south stand-up orientation for these three wells within the Bone Spring and the Wolfcamp is the proper and correct orientation for the most economic and efficient development of these two zones?

A. I do believe that. Yes.

Q. And what have you done to come to that conclusion?

A. Well, I began with a regional study and compiled data from the public domain and specifically from the USGS, their regional structural and faulting

patterns. And I also compiled a map, again in the public domain, from the National Earthquake Information Center talking about seismicity in the Delaware and Permian Basin overall.

And I also made regional isopachs of the 2nd, 3rd, the Wolfcamp and the Penn Shale. From those isopachs, I determined depositional patterns and depositional strike of these formations.

And finally, we drilled -- Chisholm drilled a well, the McCord 4H, about four miles to the southeast of this location, and it was a pilot hole to the Strawn. We ran a series of open-hole logs. And in that series, two of the logs in particular are industry standards for determining stress fields. An FMI or an image log is sometimes referred to and a dipole sonic.

So with that data in hand and all the other work I've done regionally, I consider that the north-south orientation is the most prospective or most optimum to drill these wells in.

Q. So your evaluation and assessment include both public data and a review of peer review data, as well as your own studies of Chisholm's assets; is that right?

A. Well, not only on Chisholm's assets but on Burnett's assets. I worked for Burnett for three years -- Loco Hills and Maljamar up in the -- shelf. So

I'm very familiar with the stress patterns all the way up there.

Q. Now, with respect to both the Wolfcamp and the Bone Spring, is there -- is there any variation as you -- between -- where these wells are proposed and as you step out more to the east or south or in different locations within those formations, is there variation that would suggest that this area in particular is better suited for a north-south stand-up lateral than perhaps other areas in the -- several miles away?

A. In particular, what I see when I map the isopachs in the 2nd and 3rd in the Wolfcamp, I'm mapping porosities within those zones of 8 percent or greater porosity. To me that's a conventional reservoir. And these conventional reservoirs are trending from the north, up on the shelf -- that's where they're sourced from -- across the shelf, down the slope and into the Basin. In the Basin or Basin floor plan, they're very thick, very -- very conventional.

We're not in that position. We're in a position more on the outer slope or shelf or slope. And you can see in the isopachs that I've generated that those sands are much thinner, and they're distal to these thicker sands. In my opinion, you have to stay perpendicular -- I'm sorry -- parallel to the

depositional strike here, and the depositional strike is basically north-south here.

Q. So in addition to the frac patterns, stress patterns you also reviewed, the depositional environment here suggests as well that the orientation of these wells ought to be in a north-south orientation to get the best production out of them; is that right?

A. Clearly, in my opinion, that's the case. Yes.

Q. And were you the one who was in discussions with Mr. Sullivan who had the message that science supports --

A. Yes.

Q. -- a north-south orientation?

A. Yes. I don't want to leave Beau hanging out there.

Q. So it was your opinion and conclusion that the basis for -- you selected the location of this well, correct?

A. As I said, when I signed on with Chisholm, I was assigned this area, so this entire area is my responsibility. Yes.

Q. And you are the one who believes that the science, based on your assessment and your own work, suggests -- supports the north-south orientation?

A. That's correct, yes.

Q. And in your opinion, will a lay-down well in this area result in less production than your proposed stand-up well for both formations?

A. I think it would. And based on the isopach mapping that I've done for these formations, it clearly indicates that it will not be in the best orientation with the tighter, thicker, better reservoir-quality sands.

Q. And in addition to the orientation of the depositional framework, is it your opinion that a lay-down well will also not encounter as many fractures as a north-south well?

A. That's true, yes.

Q. And tell me just if you would -- just explain what that means for the drainage and production of a well if it's not encountering sufficient fractures, if it's not oriented correctly.

A. Well, I think the production will be severely limited if you're not encountering some of these fractures. If you encounter fractures, it's like a natural conduit [sic], and it helps in the production of the well. I think that's a generally accepted industry standard, to try to encounter as many of these horizontal fractures to help your wellbore, productive --

Q. Just to be totally clear, you looked at the fracture patterns in the specific wellbore; is that correct?

A. In the McCord well, yes.

Q. And what was the location of that well?

A. It's about four miles to the southeast of this proposed location.

Q. And do those fracture patterns indicate -- which direction are they oriented?

A. Basically in an east-west direction.

Q. And in order to encounter those in a perpendicular fashion, what orientation does your well --

A. North-south.

Q. And if they are a lay-down, would they be more parallel to that frac pattern?

A. Yes.

Q. And as a result of that parallel orientation, would your wells not drain or produce as much as they would in a perpendicular fashion?

A. I think they would be -- yes. They would be less productive.

Q. Is that -- are those two factors that are sort of the chief -- chief factors for your determination that these two wells ought to be oriented north-south?

A. Yes.

Q. And I say those two factors, meaning one, the depositional framework of the -- of the Bone Spring and Wolfcamp, the other being the fracture gradient patterns in those two formations?

A. Yes.

Q. Are there any other factors that drove your decision, or are those the two principal factors?

A. I think those are the two principal factors in my case, but I think industry standards are the same. Yes.

Q. And is it your understanding that other wells in the area are being produced -- within the immediate vicinity are being drilled in a stand-up orientation for that reason?

A. I think so, without talking to the operators in person. But that would be my opinion, that they're doing the same thing, same type of work that I've done.

Q. Okay. In your opinion, Mr. Roth, will the granting of Chisholm's two applications be in the best interest of conservation, the prevention of waste and the protection of everybody's correlative rights --

A. Yes.

Q. -- in the spacing unit?

A. Yes. I think it would be. Yes.

Q. Mr. Roth, were Exhibits 10 through 12 prepared by you or under your supervision?

A. Prepared by me.

MR. RANKIN: Mr. Examiner, I would move the admission of Exhibits 10, 11 and 12 into the record.

MR. PADILLA: No objection.

EXAMINER McMILLAN: Exhibits 10 through 12 may now be accepted as part of the record.

(Chisholm Energy Operating, LLC Exhibit Numbers 10 through 12 are offered and admitted into evidence.)

MR. RANKIN: No further questions at this time. I'll pass the witness.

EXAMINER McMILLAN: Please proceed.

CROSS-EXAMINATION

BY MR. PADILLA:

Q. Mr. Roth, I believe you were testifying for Burnett in the Ard case --

(The court reporter requested Mr. Padilla speak louder.)

A. No. I did not testify in that case. I was working for Burnett, but I was -- other people that were working for me testified.

Q. Okay. Mr. Roth, how far are the Burnett wells that you drilled in this area?

A. Oh, they're up on the shelf. I don't know. They're probably six townships away, so that's 36 miles.

Q. Okay.

A. And that's an estimate, without --

Q. Did you study the Matador wells about ten miles to the east of this location?

A. Yes, I did.

Q. And didn't you tell Dan Jones when you had a meeting that you had not studied those wells?

A. I did, yes.

Q. And those wells are east-west oriented, aren't they?

A. Yes, they are.

Q. Now, is it my understanding that your testimony was you drilled the McCord 4H well?

A. Yes. We did drill a McCord 4H well.

Q. And that was completed in the Wolfcamp?

A. In the Wolfcamp A, yes.

Q. And that's where you got your stress information from?

A. We got our stress information from the Bone Spring all the way down to the Strawn. We ran open-hole logs on our pilot hole, which was drilled to the top of the Strawn. So it's not just the Wolfcamp. We have logs that run over the entire section.

Q. Did you compare that well with any other wells in the area?

A. We have wells in the Cottonwood area, which are to the southwest of this.

Q. How far?

A. They're probably 24 miles to the southwest of this.

Q. Did you bring your isopachs to this hearing today?

A. No.

Q. What information did you disclose to -- technical information did you disclose to Ken Jones and Dan Jones when you had your meeting?

A. By way of technical information, do you mean --

Q. Did you show them paperwork or anything like that?

A. No, I did not. I explained to them, just like I did here today, the work that I had done, not so much in the region but that I had done, that we do have the image log and we have the dipole sonic log.

Q. In terms of your structure map, all that shows is that you have north-south structure orientation, correct?

A. Yes.

Q. And that's mostly southeast New Mexico? If you

would look at a structure map anyway in southeast New Mexico, that's the way you would -- typically a structure map would be, right?

A. Do you mean it would all be north-south?

Q. More or less. Wouldn't it?

A. No. If you were to map this horizon -- and I have -- over the entire Basin, it is not all north-south.

Q. In general, would you agree that most structures in the southeast New Mexico are north-south?

A. No. I can't agree with that. No. I don't agree that the general structure pattern is north-south.

Q. Are there some that are east-west?

A. The structure -- some of the faults definitely run east-west.

Q. Looking at a fault that changes geological parameters, it's generally north-south? I'm sure there are some isolated areas where there is faulting, where there is a change in geology that would shift it around. So can you give us -- give me an instance where you have an east-west-oriented structure?

A. When you say structure, you're talking about a subsurface structure map like this; is that right?

Q. Yes.

A. Well, as I said, this structure is not always

oriented north-south in the Basin. It has a -- the basin center, and it has a basin flank, and it's wrapped around like that. I don't understand your question, I guess.

Q. If you limited it to Eddy County or west Eddy County, would it be north-south?

A. If I limited it to this area, I would say, in general, the subsurface structure on the top of the Wolfcamp is north-south.

Q. So structure itself doesn't tell us anything about -- other than it's north-south, as you've shown it here, right?

A. I guess I don't understand your question, because it does tell me something. When I map these horizons, yes, it tells me what the structure is doing.

Q. Well, I understand that. And I understand your cross section showed that -- that the Wolfcamp and the Bone Spring -- Bone Spring are there, correct?

A. That's right. Yes.

Q. If you go from one well to the other, and that's -- that's what it tells us.

A. Yes, sir.

Q. Okay. Now, you didn't bring any of the stress information that you were talking about that you gathered from the McCord 4H well, did you?

MR. RANKIN: Well, we weren't sure what we were going to need today because we were the only ones with an application pending. So I did bring some exhibits that we might need for rebuttal. So to answer Mr. Padilla's question, we do have some exhibits, but I'm not sure if it's everything he's asking for. But we do have potential exhibits for rebuttal. So --

Q. (BY MR. PADILLA) Well, let me ask the question this way: In terms of your presentation here on direct testimony, you haven't brought anything to demonstrate that -- anything to support that you have to parallel the stress fractures?

A. You mean in the form of regional stress patterns?

Q. Yes.

A. I think it was just stated. There are other displays that we brought with us. There is a regional map.

Q. What did you bring?

A. We have the regional map. We have several isopachs. We've got an example of the anisotropy from the sonic.

Q. In terms of this area, you have the cross section that would tie -- that would tie those isopachs with those particular geologic characteristics to this

area?

A. Well, if you're referring to the McCord well, when I'm talking about the open-hole logs, I don't have a cross section that ties those wells with me today to this area, but I have made cross sections that tie this area using that well to this area.

Q. You knew coming here that the discussion was going to be about east and west and north and south, correct?

A. Yes. I think there was probably some -- yes.

Q. You knew we were going to ask you about orientation?

A. Yes.

Q. Okay.

MR. PADILLA: I think that's all I have.

EXAMINER McMILLAN: Okay. Do you have rebuttal or anything?

MR. RANKIN: Well, Mr. Examiner, I think -- we knew that there was some issue about north-south versus east-west. We didn't know to what extent we would get into the technical aspects of it, so we were trying to streamline our presentation. If it would be helpful for the Examiners, we do have exhibits that reflect Mr. Roth's analysis of the fracture patterns in the McCord well, as well as some of the depositional

issues that he was raising. But because it wasn't clear to us how technical this issue was going to be, we'd be happy to present that now.

EXAMINER McMILLAN: I think it's appropriate to present it.

MR. RANKIN: Okay. So I'll go ahead and distribute these exhibits. We can walk through them. It will just take me a moment. And it'll take two minutes to get everyone copies of these.

EXAMINER BROOKS: Is this a good time to take a five-minute break?

EXAMINER McMILLAN: Yeah, five-minute break.

(Recess, 3:50 p.m. to 4:00 p.m.)

EXAMINER McMILLAN: Call the hearing back to order.

REDIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Roth, earlier in your testimony you testified that you had done some studies of the publicly available data, as well as conducting your own studies and reviewed an evaluation of the regional geology, as well as the geology in the specific -- immediate vicinity of the proposed -- two proposed wells; is that correct?

A. Yes.

Q. And you reflected -- I guess we have some pictures here that reflect -- I think relate to your earlier testimony beginning with the first regional state of the stress map that I'll mark as Exhibit Number -- Chisholm Exhibit Number 14. Will you review for the Examiners what this exhibit shows and where it came from and the basis for the data that was -- if you know it, where it came from?

A. This is a publicly available map. It was in an article published in 2014. But some of the sources of information are listed below. It's the "USGS Faults and Folds Database." Some of the authors are Crone and Wheeler, Lund, and the "USGS National Earthquake Information Center," Gan and Frohlich. All of those authors and sources of information are part and parcel of this map and compile this map.

One thing I notice is the red box I have should be Eddy County, and it seems to be -- but that's basically supposed to be -- in translation here.

So the black line that you see here -- heavy black lines are the orientation -- orientation of SHmax. That's the maximum stress in the Basin. And from this map was derived, from the seismicity in the Basin, the faults and other information that Crone and

Wheeler and those authors made available in this document. And as I said, as you start on the Northwest Shelf, you see up there on the Northwest Shelf the orientation of that SHmax stress is more or less north-south.

Then the note on the left-hand side of the map here that I've bolded here in the text box is well documented within the basins -- within the Delaware Basin. It's a clockwise shift as you go from north to south, and it's documented in this map. So as you see, the north to south lines up towards the shelf -- or up on the base of the shelf there. They shift and rotate almost 150 degrees to almost an east-west orientation when you get to Texas.

So that's a regional pattern. I just want to make that clear. This is regional.

Then if you note on the map there, inside that red box, there is an orange dot and a red dot. That refers to the area. It brackets the area where we are currently discussing, and there is no data there, and there wasn't any regional data that was available. And so there isn't any documentation of a north-south, east-west or any other orientation from the regional publicly available data in the area that we're working in.

One of my other examples -- one of my other exhibits will show that the McCord well that was drilled in that area is a data point within that blank area that tells us about that orientation.

Q. Is that your next exhibit, Number 15 -- what we'll number that as Number 15?

A. Yeah.

Q. Is this an exhibit that's entitled "Sonic Anisotropy"?

A. Yes, "Sonic Anisotropy."

Q. Will you review for the Examiners what this shows and how it was created?

A. The picture on the left-hand side here is a snippet or a piece of the open-hole log, the sonic log -- the dipole sonic log with the header. It was a Halliburton tool that we ran in our McCord well at intervals of 9,150 to 9,250. And it shows, based upon this tool and what it's telling you, the orientation of the SHmax. It's not exactly east-west, but it is a northeast-southwest orientation at 9,100 to 9,200 approximately in the Wolfcamp Formation.

Sonic anisotropy, as I said, is an industry standard to determine SHmax and SHmin, the maximum stress and the minimum stress. The tool emits waves from a transmitter and a tool. Those waves are sound

waves. They go through the formation and are recorded in a receiver in the tool, and the Delta-T -- the time that it takes to get from one -- from the transmitter to the receiver -- is recorded. Where those two curves don't line up or lay on top of each other -- and that's what this display is on the left -- that's called anisotropy. That's, again, an industry-accepted standard.

Where there is anisotropy greater than 5 percent -- and that's where it's shaded green on this. I'll grant you, this isn't the best example. But that's what that is saying, that there is sonic anisotropy where those two waves that have been emitted don't see the same thing.

And this diagram next to that, then, with the black outline, if you were to imagine that -- the center of that as the wellbore, you're looking down a wellbore, and it's saying that the anisotropy is going northeast-southwest, is telling you from that, that that is the orientation of SHmax northeast-southwest at the McCord well, four-and-a-half miles from our Ocotillo-proposed locations.

Q. And based on that orientation that you derived from your study in the McCord well, did that align with the state of stress regionally in the prior exhibit,

Number 14?

A. I think what it does, it tells me, in that blank area that I described on the regional map, that that's what it is in that area, because there are no other data points that I can rely on. So I'm relying on this point from the McCord well in that blank area to say that rotation that they're talking about is taking place as you go from north to south and it is occurring at 45 degrees in this area. I can see people doing this (indicating).

Q. And so effectively, then, your assessment of the state of stress or the fracture gradient or direction here in the McCord well four-and-a-half miles away is consistent with the orientation or the regional shifts in state of stress in the area going from the north on the Northwest Shelf down south through the Delaware Basin? Is that a fair statement?

A. I think that's an accurate statement. Yes.

Q. Okay. And so this orientation, northeast to southwest, would a stand-up well that is oriented north-south, would that have greater intersection or more intersection with fractures after completion than a well that is oriented east-west?

A. I think that you could argue that they would intersect equally in this case.

Q. In this case?

A. In this case, yeah. I think that with that northeast-southwest orientation at 45, that's half of 90, so you can go completely east-west. I think that, in honesty, you can say that a north-south or an east-west would possibly encounter the same kind of fractures.

Q. Okay. So in addition to the fracture orientation, however, there are other considerations. You indicated previously that there were two principal issues that made your determination that a north-south stand-up well was, without question, the better orientation here for these wells; is that correct?

A. Yes.

Q. What was that other factor?

A. As I mentioned, I did isopach mapping of several horizons. I've got three maps here that describe that. The first map -- I hope it's the first map that you have -- is the isopach of the 3rd Bone Spring Lower. If you remember the cross section I had, that was one of our targets. It's at the base of the 3rd Bone Spring Sandstone, and it's at the top of the Wolfcamp Formation.

MR. RANKIN: So, Mr. Examiner, I'll mark that as Exhibit Number 16. It's entitled "Isopach, 3rd

Bone Spring Lower."

THE WITNESS: As I said, I think that these sands were derived from the shelf to the northwest. They're coming across the shelf in a northwest-southeast pattern, and they're going across the shelf, down the slope and into the Basin. And the Basin is really centered in 24 South, 27 East, down to the southeast of where we're drilling.

We're more on the shelf or slope position. And the sands -- as you can see, the thicker sands are highlighted here with a heavy black line. That's where it's thicker. So you see where our box is for our Ocotillo prospect. And if you drilled east-west in the north half of that box, I think you'd encounter less sand. You'd encounter less reservoir quality. If you drilled north-south for the 3rd Bone Spring, I think you're going to find thicker sands as you go from north to south. So I think that's an important factor. You want to encounter as much of the reservoir-quality sands as much as you can in that wellbore.

Q. (BY MR. RANKIN) And just to be clear, you just described the proposed spacing unit or area for these two wells. It's the red-outlined box, right?

A. Yes.

And I forgot to point out the star. The

red star is where the McCord well is there, referencing about the anisotropy.

Q. And have you also looked at the depositional framework or structure in the Wolfcamp as well?

A. I have, yes.

Q. On both the Upper and Lower Wolfcamp?

A. Yes.

MR. RANKIN: And I'll mark as Exhibit Number 17 what is entitled "Isopach WC A Upper."

Q. (BY MR. RANKIN) Will you review for the Examiners what Exhibit 17 shows?

A. Again, the same idea. My mapping here: Was porosity in this formation greater than 8 percent? And I think clearly this demonstrates more so really than the other one, the depositional model that I just proposed, that the sands are coming from the northwest across the shelf and over the slope and into the Basin.

So you see that big, yellow area where all the salmon-colored attributes are? Those are all Wolfcamp wells -- Wolfcamp A wells, either horizontal or vertical, that are targeting that interval. It's very thick there. It's almost 60 feet thick of porosity greater than 8 percent. That's a basin-floor fan sitting out there, in my opinion. It's come from the shelf. It's gone across our area, and it's sitting out

there, and it's almost a -- it is conventional reservoir, in my mind.

You see our proposed unit there, and it's quite obvious it's in a very thin, less sandy area. And if you drilled east-west again, I think that you're going to not maximize the potential that you have if you go north-south and encounter thicker sands by drilling in the north-south direction, more or less parallel to depositional strike.

Q. And you've also analyzed the Wolfcamp in the lower section of the Wolfcamp?

A. It looks similar, but it is not, but still the overall patterns are the same. You have a very thick sand out there in the deep part of the Basin, a basin-floor fan. Those sands in that area are, again, 50 feet thick, 8 percent or greater porosity. And the target there again are those salmon-colored attributed wells, those are all Wolfcamp A wells. And, again, very conspicuous out there on the distal end of that fan is our location, and I don't think drilling east-west is the right direction. I think you drill north-south to encounter or at least go along depositional strike as close as you can and hopefully get better sands or a little thicker sands. Put it that way. If you go east-west, I really believe you're not going to see very

many sands.

Q. And I'll mark this exhibit entitled "Isopach WC A Lower" as Number 18. That's the exhibit you were just referencing right, Mr. Roth? Is that correct?

A. Yes, sir.

MR. PADILLA: Which exhibit?

MR. RANKIN: Exhibit 18, titled "Isopach WC A Lower," marking as Exhibit 18.

MR. PADILLA: And the WC A Upper is Exhibit 17?

MR. RANKIN: Yeah.

Q. (BY MR. RANKIN) Mr. Roth, in combination with your analysis of the fracture gradient and the depositional framework for both the Wolfcamp and the Bone Spring, it's your opinion that the orientation ought to be oriented for both these wells in the north-south direction?

A. Yes, sir.

Q. And that an east-west well is -- would be not as -- potentially not as productive as a north-south well?

A. That's true.

MR. RANKIN: Mr. Examiner, I would move the admission of Exhibits 15 through 18 into the record.

MR. PADILLA: No objection.
EXAMINER McMILLAN: Exhibits 15 --
MR. RANKIN: Oh, 14. Oh, I'm sorry. Yeah, 14 through 18.
EXAMINER McMILLAN: Exhibits 14 through 18 may now be accepted as part of the record.
(Chisholm Energy Operating, LLC Exhibit Numbers 14 through 18 are offered and admitted into evidence.)
EXAMINER McMILLAN: Cross?

RECROSS EXAMINATION

BY MR. PADILLA:

Q. Mr. Roth, when I look at Exhibit 14, you have Eddy County that's interposed -- in a square. When you look at the stress patterns there, that supports an east-west pattern, correct?

A. Where in Eddy County are you referring to?

Q. That's not where the head of the arrow is.

A. I think if you look at those SHmax in that area, that's true -- those are north-south, yeah. But I don't think that's where we're located. And this is a very difficult map to interpret at this scale, I understand.

Q. Now, going to Exhibit 15, as I understand your testimony, that exhibit supports an east-west equally to

a north-south -- or north-south well, right?

A. I think that's a fair statement. Yes. I can't argue conclusively that this is telling me to go north-south, but in light of all the other evidence --

Q. Now, looking at your isopachs, are these regional isopachs, or are they isopachs prepared for this hearing?

A. These are regional isopachs. They go all the way up to the shelf. I didn't include all that in this map.

Q. So you didn't prepare an isopach for this specific area?

A. Well, at this scale, there it is. I can certainly zoom in. It'll be the same map, if that's what you're referring to. This is a map from my project that's to scale, and I can zoom in and zoom out, and this is a zoomed-in version of that map. So I'm not going to change my interpretation, if that's what you're referring to.

Q. Did you prepare this isopach from well control?

A. I did.

Q. All over southeast New Mexico?

A. All over Eddy County, 2,000 wells.

MR. PADILLA: Nothing else.

CROSS-EXAMINATION

BY EXAMINER DAWSON:

Q. In looking at Chisholm Exhibit 15, on your dipole sonic, if you wanted to intersect more fractures, wouldn't it be more -- better to intersect that fracture pattern if you drilled northwest-southeast?

A. If you're just using that, yes.

Q. Just by looking at that?

A. Just by looking at that, right.

Q. But there's not really many operators that are drilling diagonals in there, are there?

A. No, sir.

Q. So you really can't project what the reserves would be in a diagonal well versus a north-south well?

A. I don't think anyone is drilling diagonally that I'm aware of, and that may be more land oriented than not.

Q. Okay. Going back to the exhibits -- sorry. Bear with me a minute.

Okay. Going to your Exhibit Number 10, it looks like there are a couple of horizontal wells drilled in that immediate area.

A. Yes.

Q. It looks like there was one in Section 31 and then one over to the -- it was an east-west well --

A. East-west well --

Q. -- looks like in the south half of 31?

A. Yes. That's the Daisy Duke drilled by Devon.

Q. Is that -- that's a Wolfcamp well also?

A. 2nd Bone Spring.

Q. Bone Spring. Okay.

Then over in Section 5, is that also a 2nd Bone Spring well?

A. Yes.

Q. East half of Section 5?

A. Yes.

Q. Those are really about the only two horizontal wells in that immediate area where your proposed wells are?

A. That's exactly right. Those are the only wells.

Q. Did you look at the production on those two wells as to which orientation of the Bone Spring is better?

A. I have, but that's not my calling, if you will. Our reservoir group does that, but I've looked at it. Yes.

Q. Do you have any idea as to how those wells have performed versus north-south versus east-west in those wells?

A. I've looked at them, and, honestly, I can't

comment because I don't want to say something that isn't correct. And I would defer to my reservoir group. This is -- this is what I go to them for.

MR. RANKIN: Mr. Examiner, we can testify to that today. We do have -- we can address it, if it's helpful for you. We weren't sure -- I mean, it's our case and our application, so we just weren't sure what the other side would put on. So if it's helpful to you, we can put that information on as part of our direct case. Because we weren't sure, we were prepared to discuss some of that in rebuttal if it was necessary to do so, but we can present that on our direct case if it would be helpful for you.

EXAMINER DAWSON: I think that would be good. It's just a couple of questions. It's that question, just for them to address that question.

MR. RANKIN: Yeah. We have one exhibit that can -- specifically with those two wells, and then some other wells show some production in the immediate vicinity. If it would be helpful for you -- we would like to reserve something for rebuttal because we don't know what they're going to say, but I'd be happy to put that on for you.

EXAMINER DAWSON: Okay. Thank you very much.

I've got another question.

Q. (BY EXAMINER DAWSON) On your Exhibit 16 --

A. I don't have mine numbered. Which one is that?

EXAMINER McMILLAN: Isopach Bone Spring porosity greater than 8 percent.

THE WITNESS: Lower?

Q. (BY EXAMINER DAWSON) Yes, the 3rd Bone Spring Lower.

A. Okay.

Q. That's the McCord 4H where the star is, correct?

A. Yes, sir.

Q. And so you were talking about another well, the Ghostrider well, which is five miles southeast. Is that pretty near where the McCord well is? It's not depicted on the map.

A. If you continue in that southeast orientation, it's across the township line in Section -- I want to say that's 31. I think. Yeah. It's another mile to the southeast from that star, so if you follow that same orientation across to that thicker area.

Q. Oh, it's in that thicker black line area over there, roughly?

A. Yeah.

Q. And that's --

A. That's a Wolfcamp A north-south.

Q. Okay. And that's a really well-performing well, too?

A. I can't speak to that. I know they drilled it. I haven't seen any results from it.

Q. That's all the questions I have. Thank you, Mr. Roth.

A. Yes, sir.

CROSS-EXAMINATION

BY EXAMINER McMILLAN:

Q. Okay. This is -- this is going to involve a land question, but I'm referring back to Exhibit Number 11.

A. The cross section.

Q. So your target interval is the 3rd Bone Spring Lower, right?

A. Yes, sir.

Q. It's more or less right on top of the Wolfcamp?

A. That's right.

Q. Now, here is the question I'm having, and we're going to have -- the landman's going to need to come back for this, because I want a statement from the landman that there are no depth severance.

EXAMINER McMILLAN: Did you state that previously?

MR. RANKIN: We may not have addressed that, but we can address it.

EXAMINER McMILLAN: The issue is going to have to be addressed in case they change the pool. That can create a big, huge problem. Do you have a problem with that, if I simply ask that question?

MR. PADILLA: No.

EXAMINER McMILLAN: Do you have any questions, David?

EXAMINER BROOKS: I have no questions.

EXAMINER McMILLAN: Okay. Well, then bring him back and we'll ask a question.

MR. RANKIN: I just had a couple of redirect based on Mr. Padilla's questions.

EXAMINER McMILLAN: That's fine.

REDIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Roth, you recall Mr. Padilla asked you about Matador wells approximately ten miles east of the location?

A. Yes.

Q. Do you recall that question?

A. I do.

Q. Do you recall that he asked you whether you studied those wells at the time that you met with Premier?

A. Yes, I do.

Q. And the answer was that you hadn't at that time?

A. Right.

Q. But you subsequently studied those?

A. I included them in my mapping. Yeah.

Q. And, now, those wells are approximately ten miles to the east; is that right?

A. Yes.

Q. Okay. Now, is there -- is there -- based on the geology, is there a distinction between the location of those -- those wells, ten miles east, and the subject -- the land that's the subject of these two cases?

A. I will reference my isopach for the WC A Upper. And those wells are located on the east side of 23 South, 27 East, and they're lining up there in that salmon color. And as I referenced, that one area that covers about two townships that has some heavy black lines -- several heavy black lines, and it's almost 50 -- I think it's 60 feet thick in the middle, and it goes out to 35 or 40 feet, where the Matador wells are. That's in that basin-floor fan, in my opinion. As opposed to where we propose to drill, it's distal to that fan, and that red box is up there. And that's about six or eight feet of sand. So there are distinct differences in thickness and -- in the reservoir there between Matador and where we propose to drill.

Q. Now, when Mr. Padilla was asking you about Exhibit Number 14 --

A. That was the regional map?

Q. That's the regional state of stress map. You responded to one of his questions about the location of -- where the arrowhead pointed within Eddy County, right?

A. Yes.

Q. And I think you said that you don't think that's where we are located, right?

A. That's correct.

Q. I mean, can you give a more definitive statement about that? Can you say you know that's not where this proposed well is located?

A. I know that's not where this proposed well is located.

Q. So can you definitively state that you know that the wells proposed for these two cases are not in the area where the regional state of stress is, the north-south orientation, as it is depicted here where the arrowhead is pointing?

A. Yes.

Q. Okay.

MR. RANKIN: No further questions.

EXAMINER McMILLAN: I don't have any questions.

BEAU SULLIVAN,

after having been previously sworn under oath, was re-called and questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Sullivan, you were previously sworn. Just a reminder of that.

A. I understand.

Q. Examiner McMillan was asking about whether or not there is any depth severance in terms of the

ownership within the acreage at issue in these two cases, either between the Wolfcamp or the Bone Spring. Is the interest uniform across those two formations?

A. Yes. It's uniform. There are no depth severances.

EXAMINER McMILLAN: So there would be no issue if they decided to change the pool? I'm concerned about applications where I see they're right on the contact between the two. Is that fine?

MR. PADILLA: That's fine.

EXAMINER McMILLAN: Okay. I just wanted to be on the up-and-up. Thanks. That was the question.

MR. RANKIN: Mr. Examiner, in response to Mr. Dawson's questions about production, looking at different orientations, I would like to call a third witness, Mr. James Huling, to testify about the study of the -- review of the production of the wells in the area.

EXAMINER McMILLAN: Please proceed.

JAMES R. HULING,

after having been previously sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Huling, please state your full name for the

record.

A. My name is a James R. Huling, H U L-I-N-G.

Q. And by whom are you employed?

A. Chisholm Energy.

Q. In what capacity do you work for Chisholm?

A. Reservoir engineer.

Q. And have you previously testified before the Division?

A. Yes, sir.

Q. And have you had your expert -- credentials as an expert reservoir engineer accepted and made a matter of record?

A. Yes, sir.

Q. For the benefit of those in attendance, would you briefly summarize your educational background and review your experience as a reservoir engineer?

A. Okay. I have a degree in petroleum engineering. I graduated in 1985. I've worked 33 years now as a petroleum engineer. I've worked on and off in the Permian Basin over the 33 years, specifically in the Northern Delaware Basin. I've drilled wells. I've completed wells, fracked wells in Lea and Eddy Counties, both, in my career. I've worked reserves in this area extensively.

MR. PADILLA: In the interest of time,

Mr. Examiner, I would stipulate to Mr. Huling's expertise.

EXAMINER McMILLAN: Yeah. Thanks.

MR. RANKIN: With that, Mr. Examiner, I'd tender Mr. Huling as an expert in petroleum engineering.

EXAMINER McMILLAN: So qualified.

MR. RANKIN: Thank you.

Q. (BY MR. RANKIN) Mr. Huling, have you looked at the production of wells in the area surrounding your proposed Wolfcamp and Bone Spring wells?

A. Yes, sir.

Q. And I'm looking at a document here. It says "Cumulative Production," with an asterisk. Did you prepare that document?

A. Yes, I did.

Q. And I'm going to go ahead and mark that as Exhibit Number 19, and I'll ask you what that exhibit shows and where the data came from and how you put it together.

A. In summary, this is just data out of his, which comes from the New Mexico OCD, as far as produced oil, gas and water. The gas is depicted in red, again cumulative gas production. Oil is depicted in green, cumulative oil production. The blue is water production. And for every well here, those are

identified. You can see the zones that are productive here, where the resource is coming from, identified by color. The orangey color is the 2nd Bone Spring. The pink is going to be the Wolfcamp A, and the red would be the Wolfcamp B.

Q. And what does this show with respect to -- it's a little bit hard to see, but there are sticks associated with each of those wells; is that right?

A. That is correct.

Q. And those sticks reflect the orientation of the wells associated with the production numbers indicated by the bubbles?

A. Yes, that is correct. And on this exhibit, we don't have noted, but the Daisy Duke well is the well that runs east-west through the proposed red pooled unit. And that particular well is drilled east-west and has cumulative production to date, by data from his, of about 6,000 barrels and some 260,000 standard cubic feet of gas.

Q. And that is the same well that was depicted in Exhibit 10 that Mr. Dawson was referencing when he was asking about production from Mr. Roth; is that correct?

A. Correct. Correct.

Q. And the other well in Exhibit 10 that is a north-south well that Mr. Dawson was asking about, is

that also depicted in this Exhibit Number 19?

A. Yes. That is the well that you can see the cumulative gas production of 373 million. And the oil production, you'll see, is 75,812. That's over ten times the volume of the east-west well. So, again, the vertical well -- or the well that runs north-south has cumulative production of ten times the oil volume, anyway, and higher on the gas volume.

Q. Now, those two wells, who drilled them?

A. Devon.

Q. Devon drilled them?

A. Yes.

Q. Do you know when they drilled those two wells?

A. They were both drilled in 2014. And we do have, I believe, an exhibit we can go to, if you want to go to the one that says "Ocotillo Area Data."

Q. Okay. The exhibit with the title "Ocotillo Area Data."

A. Yes.

Q. I'm going to request that that exhibit be marked as Exhibit 20.

A. Okay. So this is 20.

Q. And what does that show and tell me about what is in this map?

A. Okay. So you were asking specifically about

who are drilled these wells and dates. Again, these were drilled by Devon, the two wells you're bringing up here, the Daisy Duke 31 State and the Bo Duke Federal 5. Underneath the well name is the API number. Below that is the date of spud. So you can see that the east-west Daisy Duke well was spud on October 23rd, 2014. The north-south Bo Duke Federal #5 well was spud exactly a month later, on November 23rd, 2014. So Devon drilled both wells. The east-west well was drilled first. The north-south well was drilled second.

Q. And these are the most proximate wells in the area to your proposed proration units, correct?

A. That is correct.

And so as far as the production, again, the oil production is about -- is over ten times greater on the north-south well than the east-west well.

Q. Now, aside from the cumulative production, which says one thing about how much -- you know, oil and gas coming out of the well, have you also evaluated what the ultimate potential may be for any of these wells in the area -- the immediate area?

A. Yes. I maintain and I keep up an estimated ultimate recoveries on all Bone Spring and Wolfcamp wells and orientations throughout the Northern Delaware Basin. And in this particular case, it's very difficult

to see on the reproduction here, but you can see by the diameter of the circle, the Daisy -- the Daisy Duke well is a much smaller circle. I'm trying to -- I can't even read the number. I can calculate it pretty quickly. So it's going to be somewhere around -- somewhere less than 10,000 barrels of oil equivalent using a six to one.

Conversely, the north-south well, the Bo Duke, has a projected EUR of -- I think it's 460 -- if I can read my exhibit here, 462.

Q. So just within the immediate vicinity of this, essentially is it a roughly a township area that is roughly the area?

A. Roughly, yes.

Q. Is there a perceived preferential orientation based on projected EURs for wells in this area?

A. With the data here, yes. You would infer that -- at least looking at the 2nd Bone Spring, that yes, you would have a preference to go north-south, and there is not enough data in the Wolfcamp here to defer to an opinion.

Q. So with that -- and are these wells that you've identified, are they targeting -- in these maps, they're targeting the same zones within these formations that you're proposing for these two wells?

A. That is correct.

Q. So you're looking at only the data that is correlated to the zones that you're proposing to develop?

A. That is correct.

Q. And in your opinion, looking within this area, based on the geology, in the testimony that Mr. Roth gave, is it appropriate to limit your -- relatively limit your scope of analysis to similar geology in this area?

A. Yes.

Q. And is that -- is it fair to evaluate cum production or EURs in areas that have disparate or different geological framework than the wells in your proposed area?

A. If I'm understanding your question -- please restate your question.

Q. It was a little bit long, wasn't it?

Is it fair, in your opinion, to evaluate cumulative production or EURs or other projections of production from wells that don't have the same geology as the wells that you're --

A. You would want to make analysis in general zone by zone, but I will say that there are some regional characteristics, yes, that you can carry over.

Q. Outside of this immediate area?

A. Yes.

Q. So you need to evaluate specifically the well, the target formation, the completions to evaluate whether or not the numbers or the production of the EURs from that well are analogous to the area that you propose -- in the wells that you propose?

A. Correct. Yes.

Q. Okay.

MR. RANKIN: Okay. Mr. Examiner, I would like to mark this exhibit that's titled "Projected EURs" as Exhibit Number 21.

And, Mr. Dawson, I just want to make sure we've addressed your questions about production between wells in the area. And if not -- with that, I'd like to move the admission of Exhibits 19, 20 and 21 into the record.

EXAMINER McMILLAN: Any objection to the exhibits?

MR. PADILLA: I don't have an objection.

I'm just trying to figure out -- the one that says "Ocotillo Area Data" --

MR. RANKIN: Should be Exhibit 20.

MR. PADILLA: 20.

MR. RANKIN: "Cumulative Production" is Exhibit 19.

MR. PADILLA: Okay. Got that one.
And 21 is "Projected EURs."
MR. RANKIN: Yeah.
MR. PADILLA: Okay.
EXAMINER McMILLAN: Do you accept Exhibits 19 --
MR. PADILLA: I don't have a problem with them.
EXAMINER McMILLAN: Okay. Exhibits 19, 20 and 21 may now be accepted as part of the record.
Thank you.
(Chisholm Energy Operating, LLC Exhibit Numbers 19 through 21 are offered and admitted into evidence.)
EXAMINER McMILLAN: Cross?

CROSS-EXAMINATION

BY MR. PADILLA:

Q. Mr. Huling, did you study the records of the Daisy Duke well?

A. I looked at the OCD completion file on that well and some of the electronic data we had on record from acquiring the assets from Resource Rock.

Q. Do you know whether that well had casing problems?

A. I do not have a record of that.

Q. Do you know whether that well was fully completed?

A. According to the data I had from the OCD, as best I could tell, it looked like it was completed. Yes.

Q. Did you look at why the production was lower in that well than some of your other wells?

A. The performance of this well underperformed the wells drilled north-south, if that's your -- answer to your question.

Q. Do you know whether that well was shut in for ten months?

A. I do not recall off the top of my head. No.

Q. Do you know whether that well has only five perforations?

A. I do not recall off the top of my head.

Q. I should say only five stages as opposed to five perforations.

A. I do not recall.

Q. You made no investigation as to why this well may have underperformed?

A. I did review the files -- the OCD completion filing and looked at the volumes in the sand, and they did not appear materially different than the other wells.

MR. PADILLA: I don't have any other questions.

CROSS-EXAMINATION

BY EXAMINER McMILLAN:

Q. So if I'm understanding what you have said, going back, the EUR for the Daisy Duke is 10,000 or less than 10,000, correct?

A. Yes, correct.

Q. And then for the Bo Duke, you're giving how much?

A. 462 MBOE, using a six-to-one equivalent on gas to oil. So divide the gas volume by six and add it to the oil volume.

Q. And what -- what about Section 9? What are your reserves there by the east-west?

A. It's --

EXAMINER DAWSON: 198.

THE WITNESS: 198. Yes. Thank you.

EXAMINER DAWSON: Sure. I was going to ask the same question.

Q. (BY EXAMINER McMILLAN) So why is the well in 9 so much better than the Daisy Duke?

A. Well, I would say 198 is not -- it's still a pretty marginal well.

Q. Yeah.

A. I don't have an answer to that.

EXAMINER McMILLAN: Go ahead.

CROSS-EXAMINATION

BY EXAMINER DAWSON:

Q. So your assessment is neither the Daisy Duke 31 State nor the OXY Boo 9 State east-west -- or west-east wells are near as good as the Bo Duke Federal 5 north-south well?

A. I will say that the cumulative recoveries and the estimated ultimate recoveries as they exist are inferior to the north-south wells in general --

Q. That's all the questions I have.

A. -- in this area.

Q. That's all the questions I have. Thank you.

A. You're welcome.

EXAMINER BROOKS: No questions.

MR. RANKIN: Just a couple of questions just to clarify.

REDIRECT EXAMINATION

BY MR. RANKIN:

Q. Referencing Exhibit 21, although it's difficult to see, each of these bubbles has a -- has one or several sticks associated with them; is that correct?

A. Correct.

Q. And those sticks are representative of the well

associated with the production reflected in the bubbles, correct?

A. Correct.

Q. And so in this area here, how many of these wells are oriented in an east-west direction?

A. Looks like two.

Q. Two.

And those are the two you're referencing in Section 31 and Section 9?

A. Correct.

Q. Okay. And all the others are oriented in a north-south direction?

A. Correct.

Q. Did you leave any wells off your map here?

A. Only vertical wells.

Q. Only vertical wells.

So all horizontal wells that are completed in the zones for the Wolfcamp were included in this analysis?

A. Correct.

Q. Since -- and as to the wells that are in the southeast part of this map here, are those more recent drills?

A. There are some more recent wells. Yes. As you can see, the date on Exhibit 20, the spud data is listed

just on the Ghostrider well that's been discussed earlier. The completion date is not on there. The Red Light well, the spud data is November 24th, 2016. The date of first production is 3/1/2017, so not enough volume yet to project an EUR.

Q. Okay. So who's been drilling these group of vertical wells in that part of the map here?

A. Verticals?

Q. No. The north-south oriented wells here, do you know who the operators are?

A. Oh, it was Matador -- I don't remember.

Q. Matador? Did they drill that Ghostrider well?

A. Yes.

Q. Do you know what the initial results are from that Matador well?

A. It's my understanding it's an attractive well. It's a good well. And I do not have details. I usually do not draw a firm opinion off one IP. I need several months of data to make a better educated projection.

Q. But the reason that some of these sticks on this EUR, Exhibit 21, don't have bubbles is because there is not enough production history to determine what the EURs are going to be?

A. That is correct.

Q. But the indication is that other operators are

drilling north-south wells in the area, and the more recent wells in the area are oriented north-south?

A. That is correct.

Q. It seems to be the preferred orientation in this immediate area?

A. Yes.

Q. Could it be, Mr. Huling, that that Ghostrider well is a Mewbourne well?

A. Yeah. Matador, Mewbourne --

Q. So that Ghostrider well is actually --

A. By Mewbourne, yes.

MR. RANKIN: No further questions.

THE WITNESS: I should have put the operator on there and I didn't.

MR. RANKIN: That's okay.

MR. PADILLA: I don't have any questions.

EXAMINER McMILLAN: Okay.

MR. PADILLA: Hold on. I do want to ask something.

THE WITNESS: Okay.

RECROSS EXAMINATION

BY MR. PADILLA:

Q. Mr. Huling, do you do completions for --

A. I do not. I'm somewhat familiar, though. Yes.

Q. Who does the completions?

A. There is a team of engineers. And it's going to be Tyler Lane, is going to be the primary engineer in this area on completions, and Andrew Tullis.

Q. Do you have any input into the completion techniques?

A. I do look at metrics on EURs versus sand concentrations, perforations and so forth. Yes.

Q. Were there any discussions after you had meetings with Premier concerning the size of the frac?

A. Please repeat your question.

Q. Were there any discussions in your group after you met with Premier about the size of the frac?

A. I believe I did hear some discussion, but I do not recall any significant detail.

Q. Do you know what the size of the fracs were on the Mewbourne Ghostrider well?

A. I don't have it off the top of my head. I have it in my database, though.

Q. On the Ocotillo wells, what is the size of the fracs that you're going to use?

A. It's to be determined, but we've historically been using about 1,500 pounds per --

Q. Is that an industry standard?

A. I don't think there is really a, quote, unquote, "industry standard." I think that you can see

aberrations both ways. I can point to wells that are woefully understimulated compared to other wells that outperform.

I will tell you that the methodology that Chisholm Energy uses is a very aggressive steering campaign, and we use seismic data and track the steering with multiple geologists. I will tell you that we pay probably more attention than most of industry on steering. And I will tell you that if you have a well that is well steered and in zone, the variability on the amount of proppant is not as material.

Q. How many wells has Chisholm drilled and completed in this area?

A. Chisholm has drilled 27 wells since May of 2016, and they have not all yet been completed.

Q. Where are those wells?

A. Lea and Eddy Counties, but they're -- okay. Off the top of my head -- I don't have that answer off the top of my head. I'll be happy to provide it to you later. And I believe this has been provided to Mr. Jones.

Q. Isn't it true that you've drilled less than six in the immediate area?

A. What do you consider the immediate area?

Q. Well, the same township.

A. Oh. We've drilled none, you know, in this township.

MR. PADILLA: No further questions.

EXAMINER BROOKS: No questions.

EXAMINER DAWSON: Thank you.

EXAMINER McMILLAN: Thank you.

MR. RANKIN: With that, Mr. Examiners, I think that completes our direct case.

And I understand that Mr. Padilla has some witnesses to put on. I would like to reserve the right for rebuttal, to address any issues that come up in Mr. Padilla's case that require a rebuttal from my witnesses.

EXAMINER McMILLAN: Please proceed.

Yeah, that's granted.

Please proceed.

EXAMINER BROOKS: For the record, do you have an estimate of how long your case will likely last?

MR. PADILLA: Hopefully I can get done in half an hour, but I don't know if you have time limitations.

EXAMINER BROOKS: No, we don't. You can't really put -- my experience would suggest it's very unfair to put time limitations on one party if you haven't on the other.

MR. PADILLA: Call Ken Jones.

KEN C. JONES,

after having been previously sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. PADILLA:

Q. Mr. Jones, please state your name.

A. Ken Charles Jones.

Q. Mr. Jones, what's your -- what's your position with Premier Oil & Gas, Inc.?

A. I'm president and part owner.

Q. And how long have you been president?

A. I've been -- I've been an executive for over 25 years.

Q. Have you ever testified before the Oil Conservation Division as president of Premier Oil & Gas?

A. Twice.

Q. And had your credentials accepted as a practical oilman?

A. Yes.

Q. Are you familiar with the scope of your presentation here today?

A. Yes, I am.

Q. And you're the one that will be considering to participate in this proposal or not?

A. Yes. I have direct input into that.

Q. All right.

MR. PADILLA: We tender Mr. Jones as a practical oil person.

MR. RANKIN: Mr. Examiner, I'm just not sure what that means. If he's going to be offering fact testimony, I have no objections at all. If he's going to be offering opinions, I may reserve the right to question him on the basis for his opinions because I'm not sure what exactly it means to be a practical oil person. So with that caveat, I have no objections to Mr. Jones' testimony. I just don't know if he's going to be offering -- what would be considered to be expert opinions or opinions of any kind outside what would be accepted as a lay opinion.

MR. PADILLA: Mr. Examiner, I don't think I'm going to ask him to testify as an expert as a petroleum engineer, as a geologist. I will ask him of his general knowledge and evaluation of prospects and how he evaluates prospects from a business standpoint, and a lot of that is going to be fact testimony.

MR. RANKIN: No objections to Mr. Jones testifying as to facts or his process for evaluating prospects. But if Mr. Jones is going to testify about anything that relates to opinions or which requires a

combination of expert knowledge, then I would reserve the right to question him on the basis for that opinion.

EXAMINER McMILLAN: Okay. That's accepted, and please proceed.

Q. (BY MR. PADILLA) Mr. Jones, let's look at your first exhibit, Exhibit Number 1, and tell us what that is.

A. This is an aerial --

Q. First of all, let me ask you this: Did you compile exhibits for introduction here from your records or --

A. Yes.

Q. -- data that you gather from time to time with regard to your business in either deciding to enter into prospects or evaluating prospects that you may invest in?

A. Yes. That would be a correct characterization.

Q. Okay. Tell me what Exhibit Number 1 is.

A. Exhibit Number 1, Mr. Examiner, is an aerial view developed off of his, and it is a map showing the intersection of the four townships, since we're kind of working in that corner, and you can see outlying wells and just a general -- a general perspective of what's going on.

Q. Now, let's start off on the east side of that.

There is an oval-shaped something in brown there. What is that?

A. That oval shape, we placed on the map because we wanted to outline to the Commission that here's where the infrastructure lies. There are a number of features on here that are very important, and we want to point out that these are going to be the initial wells drilled in the area and that we need to look out for which orientation we're drilling and for other major -- major environmental effects.

So in terms of being a good neighbor, we see the infrastructure being primarily on this east side of Section -- Section 5 and Section 32.

Q. When you say infrastructure, what do you mean by that?

A. Well, you've got existing well roads. You've got electricity already ran. You've got tank batteries. You've got gas lines already ran on that side. So it's a very simple analysis of hey, as an operator, when we go in to look at an area, I mean, how much additional cost is it going to be to place new wells in a region. And we're looking at it, of course, from the east-west perspective.

For instance, if you look in the oval, near the top of it, approximately three-fourths of the way to

the east side, you'll see a lease line running north and south. That actually represents the -- that's right on the lease line between Sections 32 and 33. And then you see three well locations coming off there. Those are existing Delaware wells that I believe Chisholm operates at this point. You also can see -- I'm going to try and point it out to you. But you see a road extending in this kind of half-moon section that bisects that. That is the one secondary road that runs out of Carlsbad, and it's called Hildago Road.

So it's pretty simple in terms of trying to develop where the infrastructure is. And you've got an immediate access off of the -- off of a paved road in the region of what we're seeing as the east half of 32. You also could extend over into what would be the boundary line of the JOA and still see where you've got infrastructure in that region.

Q. Let's turn to the second page. What does that show?

A. Okay. So the second page is a topo map of the region, and in this topo map, I've outlined what we would propose to be the direction by the four squares coming off of that -- that area.

What's significant that I would like to point out to you, Mr. Examiner, is on the west side is

the hills that are developing. These are very tortuous hills. They are going to be very difficult to get locations in. I know when we participated with Devon in 2008, for them to get the location in what was the southeast corner of Section 31 was a very difficult location for them to get. They were trying not to drill that well directionally.

The other thing that needs to be pointed out here is if you'll look on the lower left side, I've got a number of circles that are in that region. This is Carlsbad's water supply. There is listed a square that has "Storage" written on it. That's their main water tank. This is -- this is 98 percent of Carlsbad's water supply. So you've got WWs. Those are their actual water wells that produce into the storage tank. I believe the GWs, from what I can identify looking on Google Earth, is groundwater wells that are for the rancher in the region. I'm not near as concerned about those as I am those water wells.

Q. Does that show the proposed tract of the Chisholm well?

A. Yes. You can look down -- and, of course, the well sticks aren't really representing the actual orientation but the general location. So if you come off of Hildago Road -- and I was just out there in March

and brought this concern up to Chisholm when I talked to them. There is actually a little -- there is a little road just immediately south of Hildago Road. You've actually got to cross a gate that's labeled and that is locked, "Carlsbad Water Supply." So Carlsbad keeps that locked up in that region. You travel in about -- I think it's roughly 75 to 100 feet on that road, and then -- and then you can see the three stakes. So I physically walked over to the stakes that were in that region.

Q. Why are -- why do these water wells seem significant? I mean, aren't the water wells shallower than the proposed depth of the wells?

A. Correct.

So the water wells are roughly 1,200 feet. I think it's 800 to 1,200 feet, is the approximate depth of them. But what's significant is we're now taking a north-south direction with these wells, and as you can imagine, they're going to have to work over further to the west as time goes on in order to get locations for further development. Now we begin to encroach those water wells.

Q. And is there any kind of a risk associated with drilling around those wells?

A. So, I mean, we've got a great casing program.

We've reviewed that. We've looked at it. But then you have integrity issues over time. It is -- it is in my judgment that Premier does not need to be in that region. We're not in an area to be risked.

And let me say this: Part of risk development is having a little foresight. I mean, what we didn't talk about is what I was. I have a chemistry degree from Baylor. I practiced dentistry for 25 years. Dentistry, you're taught to -- you know, an ounce of prevention is worth a pound of cure. Well, you're trying to prevent any kind of future issues that are coming up. You add that kind of component into the fact that I have a sister married to an Ervey [sic; phonetic], and we all know the brine well situation in there. If somebody would have had some foresight back in that time frame of staying away from placing a brine well underneath major thoroughfares in Carlsbad, we may not have that same situation, because I don't think that the Commission at this point would approve a well in that region.

I'm not making that as an apple-to-apple comparison. I'm making that comparison as to what Premier is willing to risk in terms of eventually working back to the west.

Now, let me add one thing here real quick

because I know they're going to ask me about it, and that is that the west half of Section 6 is not leased at this moment. It actually had Marathon wells that were originally proposed on it. It is actually coming up for sale in the upcoming auction. Chisholm has nominated it for -- for sale, and May 15th is the sale of that piece of property.

What you're aligning me with at this point is you're aligning me with the potential that I'm going to have to go back in and participate north-south with them later on. You're now beginning to encroach that water well, which you can immediately see on the lease -- it's actually the township line that's right there. We're going to be within potentially less than 1,000 feet of that well.

I'm not interested -- as a family business and as a long-term agent, I mean, we've been around for a long time drilling wells in that region. I can also tell you that we -- you know, we've been out there with Devon since 2008 when we made the deal with Devon. We've had opportunities to purchase things in that region. We have made conscious decisions not to do that because we don't want -- we personally don't feel like we can go in and enter into a potential deal where we run the risk of hundreds of millions of dollars of

lawsuits -- or tens of millions. Let me say it that way. Maybe that's a bit -- so that's -- that's three of the things there that I'm looking at.

I'm looking at -- I'm looking at where's -- where's the infrastructure at, trying to be environmentally sensitive and staying away from the -- staying away from the water wells.

And then when you look at the hills, I mean to try and develop adequately over here even on the west side of -- let's say Chisholm does not get the west side of 6, but we've got to potentially develop the west side of 31. How are we going to do that in those hills? Well, you might be able to get a location here or there, but it's going to be very difficult to get a location there without dynamiting and trying to tear that. I don't view that as being a good neighbor. I don't view that as being a conscious decision from our standpoint that makes a lot of sense.

Q. Are you done with Exhibit 1?

A. Yes, sir.

Q. Let's move on to Exhibit 2. That's another map, correct?

A. Correct. So this about the topography and the different -- the different networks out. And what I'm lining out at this point is -- again, this is what

Premier's proposing as an east-west development. And let me be clear. There was one thing that hasn't really come out adequately anyway. There are three AFEs at this point. There is not just two. The only reason they're doing two is because they want to cover the Bone Spring and they want to cover the Wolfcamp in this deal. But there are actually three -- three AFEs. There's the 3rd Bone Spring; there's the Wolfcamp A, and there's the Wolfcamp B.

So I want you to imagine from each one of those locations there that there will be three wells on that if we follow the development that Chisholm's proposing at this point. There will also be future zones that will be developed in there. I'm just isolating this discussion as to what is on the table at us.

Q. Second page?

A. Second page is Chisholm's development, north-south. Now, I referenced a minute ago that the west half of 6 is not leased at this point. So it's in a blank status.

Premier's ownership would follow, at this moment, what is designed. We would have two-mile laterals going north-south across each of these locations, and then you would have one-mile laterals up

here on the west half of Section 31. At this point, the east half of both 5 and Section 32, Premier does not have ownership in. We have no ownership at this point, so I didn't -- I didn't include that in this analysis that we're about to go down.

So, again, you've got six different locations. You've got two of them that are buried in the hills. The ones that really -- I mean, I should have drawn the four right on top of where their location is because that's where it is, but you can imagine, three is going to have to be further to the east -- I beg your pardon -- further to the west. And then we would have a different ownership in 5 and 6 versus 3 and 4 and a different ownership in 1 and 2 versus those.

Q. Are you ready to go to 3?

A. Yes.

Q. What is 3?

A. Okay. So 3 is: What is this going to cost Premier in terms of development? If you start at the top of Chisholm's north-south economic analysis, you can see that for the first location, which is in the very west half of -- the west half of the west half of Section 31, we're going to have a 3rd Bone Spring location -- a 3rd Bone Spring well, a Wolfcamp A well and a Wolfcamp B well, all one-mile laterals. I've got

an AFE cost of $6 million on that, and I've got Premier's ownership at 20 percent and then Premier's costs. And then I subsequently go down each one of those locations all the way across -- one, two, three, four, five and six -- showing the three wells per deal.

Premier's cost is going to be $16,762,000, approximately.

The next part down is going back to the very first page where I've got Premier's locations going east and west. And, again, I've got the 3rd Bone Spring, the Wolfcamp A and the Wolfcamp B for each one of those locations. Our working interest is going to be the same. Our costs are going to be the same across all the wells. So subsequently we're going to have $14,662,000 worth of capital development.

This is another factor in there. I'm not telling you that this is the deciding factor, but this is another factor in our thought process of what we're doing. It's going to cost us over $2 million more to participate in full development by going -- by doing what Chisholm's proposing versus what Premier's proposing.

Q. Okay. What's Exhibit 4?

A. Okay. Exhibit 4. We've heard testimony from Mr. Roth.

Q. Let me ask you first: Where did you get this -- is this something that you prepared?

A. No. This is not prepared by Premier. This is prepared by Devon.

Q. And how did you get it?

A. In the Burton Flat -- I'm going to tell the story. In the Burton Flat region, which is just north of Carlsbad -- understand, the region we're talking about, the Ocotillo region, is immediately to the west of the airport.

In the Burton Flat region, Devon went out and drilled approximately 15 to 20 wells, and they weren't doing real well. They were kind of looking like the results that you saw in those 2nd Bone Spring wells. And they went in and they did analysis. I do not have the data of the analysis, but we had a huge meeting at our office. They came down from Oklahoma City, and they came to Dallas, and we had this long conversation. The gist of it was, we both had stand-up units beside each other in Section 6. And in Section 6, there is one of those that -- one of the elongated units where you've got -- there are two stand-ups, and Mewbourne had a lay-down on top of us, to try to get you a reference of where we're at.

Devon came to us. I do not have the data.

They would not give me the data at the end of the day. Right? So they weren't going to release that to me, but they did give me the final conclusions page, and this (indicating) is a product of the final conclusions page. If you read through their notes, the orientation that needed to take place in the wells was east-west.

Q. And how far away of these Burton Flat wells from -- what area is this?

A. It's approximately 13 miles away, and it's in the -- it's in the same geological setting as what we're talking about right now in terms of the relationship to the shale.

Q. Do you know whether wells were drilled east-west?

A. Yes. So subsequently Mewbourne has drilled a well east-west on that lay-down unit on top of us. To this date, we have not made a deal in terms of whether we're doing it. We're certainly watching the Mewbourne well, and it is a good well. And it's in the 3rd Bone Spring.

Q. How does this conclusion enter into your thinking with regard to this case?

A. Well, it's a little bit complicated, because in that -- in that conversation, we asked -- if you'll notice specifically, it's talking about the Bone Spring.

We're like, "Well, what do you guys know about the Wolfcamp? And they said, "The data is the same," and that they had a large meeting with Mewbourne where they had a deal where they were conflicting on whether to go east-west, go north-south. And the conclusion was Mewbourne wanted to go north-south. They wanted to go east-west. That's what the data is telling us. I do not know how that deal turned out other than the conclusions were the same for the Wolfcamp and the --

Q. Let's go to Exhibit 5. Where did you get this?

A. This is from Matador's annual report, and it is a general promotion of hey, Mr. Investor, this is how we're doing. So it's SEC regulated and straight off of the Internet. It is in 23 South, 27 East. It is the closest clear example that we have of east-west versus north-south.

Q. How far is this from the ten miles?

A. It's ten miles, as Mr. Roth testified.

Q. Are these the Matador wells that I asked Mr. Roth about?

A. Correct. This was part of our analysis and part of what we were following. If you look at the east-west wells that they're highlighting, what you can't see right underneath the circle, what would be Section 25 of that township are two north-south wells.

If you can see them going north-south just right below the circle.

Q. Yes.

A. It's going to go further under Dan's testimony, but eight of those wells are in the same TVD. Six of the east-west are the same as two of the north-south wells.

Q. So if you look at the projections on the north side, what do those projections tell you? That's the question.

A. They're projecting over 900,000 barrels of oil equivalent in their wells. Now, that's -- let me be clear. That is three stream. In other words, they're counting their gas liquids in that.

Q. Okay. Anything else in Exhibit 5?

A. You might note -- you might note the lower right-hand corner where we've got OXY highlighted because it's going to lead into the next discussion.

Q. Okay. You're talking, then, about Exhibit 6?

A. Correct.

Q. What is Exhibit 6?

A. So Exhibit 6 is something that we're keenly attuned to because we've got overrides in these wells. These are our two recent completions by OXY in the Wolfcamp that are two-mile east-west wells, and they

are, from all apparent purposes, the two largest wells that I've seen to date in the whole -- west-of-the-Pecos region.

Q. And is the production shown on the third and fourth pages of that exhibit?

A. Correct. So there is a discrepancy in terms of how OXY reported --

Q. Let me ask you this: What is this? Where did you get this information from?

A. This is off the Taxation and Revenue. It's straight off their Web site.

Q. And where is the production for these two wells shown?

A. In the first two columns, the first month is January. That's the first line. You can see that the wells made 302,000 barrels in the month of January. February's production is immediately below that, at 138,000. So they've combined over 440,000 barrels in the first two months of production. I can testify that we've already been paid for March, and they've made -- the wells have made a subsequent other -- over 84,000 barrels. So they're somewhere in the 525,000 barrels of oil. That's not barrels of oil equivalent. That's barrels of oil in the first three months from these two wells. And they are east-west.

And I can also note -- if you'll look in that -- back to the previous exhibit, OXY has drilled a number of Bone Spring wells in there, which we have overrides in, and they're all east-west. They do have -- out of that whole Cedar Canyon development, they probably have 85 percent of their wells going east-west in that direction.

Q. So you're just strictly looking at how these well are producing to make your assessments and how best to maximize your investment. Is that fair to say?

A. Yeah, that's fair to say.

I mean, for instance, there is an outstanding COG well just south of the OXY wells that's a north-south two-mile lateral that was actually fracked with more proppant. The well's going to make over a million barrels of oil. At this point it's made 440,000 barrels of oil in 22 months.

The OXY wells made -- understand, it's two wells, and, of course, we're taking peak production. But they made 440,000 barrels in two months versus the one well that's been going for 22 months. That well still makes almost 400 barrels a day, and it's made 440,000 barrels of oil. So we're looking at this, and we're deriving -- what Devon told us initially up here is their clear example where they went in and drilled 15

to 20 wells before they figured it out.

Q. They drilled 15 wells north-south?

A. They've drilled 15 -- yeah. They drilled 15 to 20 wells north-south in the Burton Flat area before they actually went in and started doing the science and realized they were going the wrong way. This is not uncommon.

I mean, I can also point out that -- we talked about two wells over in 23-26, the Ghostrider and the Marathon well which is the Red Light. And the interesting thing is we think they're both good wells. But the interesting thing is -- the reason those are drilled north-south is because their acreage position lies in that direction.

Marathon has just drilled in the middle of -- I believe it's in Section 9 of 23-27 seven east-west wells. Well, what's driving that? I mean, Premier does not -- Premier's not in a position to have all the science that the Devons, the EOGs, all the big operators like OXY have, but, trust me, we intuitively follow exactly what these companies are doing. We know which ones to get in bed with. We know which ones not to get in bed with. There are some of them that are really lacking, I mean, including one major oil company, that in terms of their completion design, you're just

like, what are they doing? So, I mean, that sounds critical, but it's actually the data that we follow internally in what we're -- what we're -- the way we have to make decisions.

Q. Do you have anything else on Exhibit 6?

A. I do not.

Q. Anything else you have to add to your testimony?

A. Let me -- let me just reference this, Mr. Examiner. We've been on the wrong side of the equation before, wells over in the Antelope region, where people experiment and where people are trying to figure out the right formula, and it's brutal. I mean, there is clear and convincing evidence that we can -- we can do a much finer job in this situation in terms of where infrastructure is, keep away from tearing up those hills, stay away from the Carlsbad water and the evidence that we're -- at least the initial part that you've heard from me and you're going to hear further from Dan in that east-west is sound. It's very sound in the way we're going.

MR. PADILLA: We'll pass the witness.

EXAMINER McMILLAN: Are you including the rest of your exhibits, or is that going to be done later?

THE WITNESS: That's --

EXAMINER McMILLAN: Okay. That's fine. That's fine. We'll do that later.

MR. PADILLA: Okay.

MR. RANKIN: I have some questions just about a couple of the exhibits so I can understand the basis for them because I'm not certain the foundation for admission. I want to explore that.

EXAMINER McMILLAN: That's fine.

And let's take a break. I have to tell my wife to eat without me.

(Recess, 5:29 p.m. to 5:37 p.m.)

EXAMINER McMILLAN: Back on the record.

And Adam has some questions about exhibits.

CROSS-EXAMINATION

BY MR. RANKIN:

Q. Now, I'm going to turn to the second page of Exhibit Number 1, and I just want to kind of discuss with you and ask some questions about this. And you stated -- I believe that you indicated -- here on this map, it looks like some handwriting, some well locations, is that correct, in the blue?

A. Correct. I think Carlsbad has up to 12 wells within that region.

Q. I'm sorry. And I'm specifically talking about

in the east half -- or, rather, Section 32 and Section 31.

A. Okay. Correct.

Q. Those are hand-drawn wells that you drew there?

A. Correct.

Q. And are those -- have those wells been proposed to anybody?

A. They have not.

Q. Okay. So you don't have an existing current proposal to drill any wells in Section 32 or 31; is that correct?

A. I have not made the proposal. No. There's been several changes in operatorship here.

Q. Okay. So how long have you owned an interest in this area under this JOA?

A. Since 2008.

Q. And in that time, you haven't made a -- have you proposed any wells in that time?

A. I have not. Let me be clear. This is on the western edge of any Wolfcamp development at this point. There is not really any -- I know of one well to the northwest of us. So we're cutting -- cutting our teeth here.

Q. So these wells have not been proposed by Premier to anybody at this time?

A. Not in a formal letter other than suggestions to Chisholm.

Q. And what was the nature -- in other words, when you suggested these wells, you just suggested orientation, or did you actually give them a proposal with numbers and values and figures and formations and intervals?

A. No. It was just -- it was a suggestion at that point. I mean, obviously, under the JOA -- current JOA, we can drill mile-and-a-half laterals east-west in that region using the west half of 32 and all of 31. I was willing -- in the email, as Mr. Sullivan referenced, I was willing to extend into that region. I'm perfectly happy drilling mile-and-a-half laterals if that's what it dictates.

Q. Do you agree that two-mile laterals are more efficient and effective than a mile or mile-and-a-half lateral at draining the reserves?

A. Sure. I mean, there is a hierarchy there. Just like we're going to get caught with one-mile laterals over here on 32 at a higher interest rate -- I mean on 31 on the west half, our proposal is cleaner from our perspective.

I mean, at this moment, Chisholm can go in and drill two-mile laterals across 32 and 31, and they

can drill a mile-and-a-half using that east side on all of 5 and the east half of 6. There is nothing stopping that from happening. I apologize I didn't make that presentation to the -- to you, Mr. Examiner. But, I mean, there is nothing stopping Chisholm from continuing on down, and that's part of the reason that I highlighted that oval all the way down into 5. The infrastructure exists down in that region already without encroaching on the Carlsbad water supply.

Q. Your suggestion here is simply based on -- is not based on geology or reservoir engineering or based on the capability of the intervals in here to produce. It's simply based on the location of infrastructure and your ownership interest in Sections 31 and 32. Is that a fair statement?

A. And in risk of environmental issues and in being a good neighbor. We don't have to go tear those hills up to put those locations in.

Q. Okay. We'll talk about that in a moment.

With respect to the environmental concerns, you indicated -- we'll start with the Carlsbad wells in Section 6, correct?

A. Correct.

Q. And you indicated that the west half of 6 remains unleased at this point?

A. Correct.

Q. But it's been nominated by Chisholm for leasing, correct?

A. Correct.

I pointed out to Chisholm initially that -- I called them up and said, "You realize you're already encroaching where you're at?" And in that measurement, we were roughly 3,000 feet away from the water wells, maybe as much as 3,500.

Q. In terms of the location from the laterals?

A. Right.

I mean, if it becomes an issue with one of the wells, the first thing they're going to do is -- the environmental guy is going to drive out there, and he's going to enter the gate. And he's going to look over to his right, and he's going to see the three wells proposed, and they're going to get shut down, very similar to what happened to Devon on that Daisy Duke well up in 31. They got shut down because they had casing integrity problems with that well. They never completed the well totally. They actually -- if you go into the numbers, you can see where the well was shut down for literally an entire year.

Q. Whether or not wells are oriented in a north-south orientation between Section 31 and Section

6, Section 6 can be drilled going east-west orientation and underneath those Carlsbad wells, correct?

A. Section 6 can be drilled by going up underneath -- from the -- from the north-south or from the east-west?

Q. Either way. I mean either way -- in other words --

A. Right. You're placing your well locations closer to the water as you continue to move further to the west on your north-south plan.

Q. Is that necessarily -- have you seen the north-south plan from Chisholm where they proposed to locate a well in the west of half of Section 31?

A. No. I think it would help if Mr. Examiner understands that Chisholm really is in control in the sense of their ownership in 31, 32, 5 and 6. I mean, they're the operator of that region, and they're the largest -- they're the largest working interest owner. So I'm not real sure where you're trying to lead me on that, but --

Q. I'm just wondering. Have you seen anything there -- you're suggesting that you have a sense or you know -- and I'll get to that --

A. Well, these are going to be the initial wells. So, I mean, once you start north-south, you're not going

to say, "Oh, back out; we're going to go east-west." I haven't seen that happen.

Q. My question just simply is: Have you seen the plan from Chisholm about where they intend to place their wells in the west half of Section 31 or of Section 6?

A. No. They told me they would find locations.

Q. Okay. So you don't know where they're going to place the wells? So you don't know if there are going to be any issues with proximity --

A. From a topography thing on 31, whether you're coming from the north or you're coming from the south, if you're going to go north-south, you're in those hills, and they are wicked.

Q. What are the contour intervals from this map?

A. I've got to blow it up. I can't read it from this level. I can tell you -- I can tell you there is a well that Dan and I worked up to that sits up in what would be Section 1 of the next township. You can kind of see it at the top of the hill up there. And from where the water wells are down below, it's literally a 300-foot climb.

Q. So you don't know what the contour intervals are in this map?

A. I can't read it right now.

MR. DANIEL JONES: They're on the map. I can read them.

THE WITNESS: Dan's eyes are -- my contacts are bothering me.

MR. DANIEL JONES: Do you care if I read it?

THE WITNESS: No. You're not under oath. You can read it later.

Q. (BY MR. RANKIN) I guess I'm just curious of the contours -- this map. I see that there are some numbers indicating elevations, but I don't know what the intervals are between them.

A. I suspect they're under 25 feet, each contour line.

Q. Okay. So a rough guess, it's something like 25 feet between those contour intervals?

A. Correct.

Q. All right. So obviously on the westside of Section 31 and Section 6, those contour intervals are a little bit closer together, correct, the west half-west half of Section 31?

A. The west half-west half of 31 --

Q. That's what you're talking about, those hills?

A. The hills, I mean -- we have walked those hills. We have -- Dan and I have walked those hills.

We know how tough it was to get the location in in the southeast of 31. I'm not saying it's not impossible to get locations there, but the amount of damage you're going to be doing in order to dynamite and make a location sufficient to put three wells on and then -- you know, that gets into a whole other issue because -- what this development shows you is just what's the standard ruling right now.

I mean, I can tell you, in Culberson County, that there are pilots going on right now by Cimarex where they're putting as many as 30 wells through the Wolfcamp location, through the Wolfcamp Formation. So I'm not sure how we're going to get that many wells in that region once it develops fully. Whereas, if you stay on the east side where it's flat, to me that makes total sense.

Q. Mr. Jones, there is no proposal outstanding right now. This case is not about the west half of Section 31 or the west half of Section 6, correct?

A. It's about the initial development of it.

Q. Of those two sections?

A. Of this region, of these wells, because these are all going to be put together at some point.

Q. Now, let me just ask you. You brought up the city of Carlsbad. Do you know if Carlsbad, as a

third-party consultant, who has been consulting with -- by Chisholm with respect to the 2H well and has agreed to the location and well path for the 2H well that's the subject of this case today?

A. Chisholm has not relayed that to me. No.

Q. Do you know whether they're already evaluating the wells for the west half of Section 31 and the west half of Section 6 that Chisholm was considering for that area?

A. Again, I have no knowledge of that.

Q. Again, looking at -- moving on to Exhibit Number 2, again, you indicate here that -- is that your handwriting that drew these wells going east-west in the blue-colored area on Exhibit Number 2?

A. Is this -- I'm sorry. Let me get my exhibits in order.

Yes. That's my handwriting.

Q. Again, these wells have not been proposed by Premier to any other -- to any working interest owners in this acreage, have they?

A. Outside of -- outside of the proposal that we've made to -- verbal proposal made to Chisholm, no, not on a formal basis.

Q. And on the next page of that exhibit, you drew locations in red in the west half of Section 31. Is

that your drawings of those wells marked number one and two?

A. Yes.

Q. What are those locations based on?

A. They're based on one-mile laterals at this point in order to -- I'm trying to make an assumption that we're not going to waste hydrocarbon at this point. So how are we going to drill those wells? How are we going to drain that part of the -- so the only way to do it is one-mile laterals in one and two.

Q. This is not based on any discussions with Chisholm about where they propose to place their wells in that area?

A. Again, you're not going -- obviously, we're not going east-west with the way they like it, so you can take -- easily take the locations to the north.

Q. Here's my question: It's not based on any discussions you've had with Chisholm?

A. No. This is -- this is what I see as development.

Q. It will go a lot quicker if we just stick to the question. Then we'll move along.

The next exhibit, Number -- I think it's Exhibit Number 4. This is, I believe -- again, this is a document you received from Devon; is that correct?

A. That's correct.

Q. And Devon's final conclusions and recommendations, correct?

A. Yes.

Q. When did you receive this document from Devon?

A. I believe in the 2014, 2015 time frame. I'd have to go back to the emails, but it was two or three years ago.

Q. Okay. Well, 2014 is longer than two or three years ago.

A. Okay. Three or four years ago.

Q. You can't identify when it was that you received this --

A. I could go back to my emails if anyone wants to know.

Q. So you don't know if it was before or after Devon drilled the wells in Section 31 and Section 9 in Township 23 South, 26 East?

A. I do not know that.

Q. Okay. And this area that they're referencing in this slide, where is it located?

A. It's in the Burton Flat region, so it's in 21-27 about 13 miles to the northeast.

Q. And are you an engineer or a geologist?

A. I'm not an engineer or a geologist.

Q. Okay. So do you have any basis to state that the geology or -- in this area is analogous to the geology in the area that is the subject of these applications?

A. Oh, sure. I mean, I can do that.

Q. You just told me you're not a geologist.

A. I'm not a geologist, but I know where the shelf is, and I know where the deposition comes from. So --

Q. But you have no basis to opine on whether the geology is actually analogous between these two areas?

A. I believe -- I believe we've heard testimony from Mr. Roth that said -- you know, he was relating things back into -- 36 miles away back into -- on the shelf. This is clearly closer to that region. There are other examples -- there are other east-west examples right now that are going on between where we heard -- his testimony where he worked with Burnett and this region where companies are going east-west making fabulous flow.

Q. Isn't this Burton Flat area more than twice the distance from the subject area in these two cases as the McCord well is that Chisholm recently drilled?

A. Yes. That would be accurate.

Q. Okay. Were you aware that Chisholm now owns the 3D data that Devon wouldn't share with you at this

meeting that you referenced in your testimony?

A. I do not have any 3D data.

Q. Are you aware that Chisholm has that data?

A. No. Again, you know, we -- we -- if you want to reference back to the meeting that we took the time to drive to Fort Worth on, we were presented with nothing. We were told that there was an FMI log that they were relying upon.

Q. Again, looking on -- moving on to Exhibit Number 5, where is this located in relation to the subject area for these two wells?

A. This is the township immediately to the east of -- so it's in 23 -- you see my little arrow I drew up there with 23-27? You would think I wasn't a dentist based on my handwriting, but that's the way it is --

Q. So --

A. -- or was. I'm no longer practicing.

Q. -- that arrow was meant to suggest what exactly?

A. The arrow up says "23 South, 27 East." So this is one township over or roughly ten miles away.

Q. Okay. So the area with the black circle and the red highlighting is in Section --

A. Correct.

Q. -- Township 23 South, 27 East, correct?

A. Correct.

Q. That's one township to the east?

A. I believe Dan will help clear that up because his first exhibit is going to show you a clear understanding of where that's at.

Q. That's approximately what? How many miles east of the subject area in this case?

A. It's ten.

Q. Ten miles.

And your next exhibit, Exhibit 6, I think these are the OXY wells?

A. Correct.

Q. How many miles are these away from the subject area in these two cases?

A. Well, if I can push you back to Exhibit 5, in the lower right-hand corner of that map, you can see what I've circled and put "OXY."

Q. Right.

A. That's where they're at. They're in 24-29.

Q. Okay. So that's one, two -- three townships east and one township south; is that right?

A. Correct.

Q. And do you have any basis to state that there is -- the geology where these OXY wells are located or where these Matador wells are located are analogous to

the geology in the location where the subject wells are proposed?

A. I'm not going to testify as a geologist.

Q. So you have no basis -- geologic -- no basis to state the geology --

A. No. We've heard testimony from Mr. Roth of where -- that the entire region should be drilled north-south. This is -- this is -- this is the trap that Devon fell into initially in the Burton Flat region, where they drilled 15 to 20 wells, made this assumption and then ran the data, and the data came back separately and showed quite the opposite.

Q. Okay. And you were looking at wells that are oriented east-west, that produced well. I believe -- I'm summarizing or paraphrasing your testimony. But tell me again your methodology for identifying these wells. It wasn't based on geology. It was based on production; is that correct?

A. Yeah. We tend to -- as an end result, we tend to look at -- companywide, we look at the completion procedures. We look at how the wells were drilled. We look at the operations, and then we make comparative analysis of how companies are drilling east-west, north-south.

Q. Exhibit Number 3, this is a -- is this proposed

cost for what?

A. Correct.

Q. For what?

A. For each one of those wells.

Q. The four wells that you suggested to Chisholm; is that right?

A. These are proposed costs based on our experience on participating in wells.

Q. Okay. Have you -- how many wells have you proposed to drill as -- yourself? How many --

A. Again, I have not proposed any wells in this area to drill.

Q. Okay. And. And you're not -- you're not an engineer by experience or training?

A. I'm not an engineer by experience or training.

Q. So what's the basis for these numbers for these four wells?

A. These come off simply by the fact that (A) I don't believe that Chisholm can drill the wells at the prices that they're saying. We've participated in a number of wells, and these are the prices that we see coming at us on AFEs.

Q. Okay. And didn't you previously testify that where these wells are proposed, there aren't much -- you haven't seen much drilling in this -- within this area

of this township; is that correct?

A. Yeah. But the approximate depths of the wells are about the same. I mean, we were taking data from -- so I can tell you and testify up here, from our analysis, Mewbourne's probably the most efficient and the cleanest operator, period. There are other companies that are close, from our analysis.

We have a two-mile lateral that we participated in at a higher percentage than what we're seeing here that the well was 8.75 million, and it's based upon a frac job that's similar to what Chisholm is doing in terms of about 1,500 pounds per foot. It's a clear -- I just don't believe at this point -- I mean, I've been hit with AFE costs before, and gosh, I would like to hold people to that, because I've had AFE costs at $8 million and the well's been 11. So I'm not naive in the sense of running the economics and knowing -- knowing what I think the AFE costs are going to be.

What this doesn't take into consideration -- you know, the $2 million, it's a pretty big number over time. What this doesn't take into consideration is, on the north-south piece of this, they're going to end up spending more money because the infrastructure is not in that region. They're going off into the hills on some of these wells.

And the other thing that Premier's going to get hammered on is, as we've discussed, we're drilling one-mile -- we're participating in one-mile laterals, which aren't as good as one-and-a-half, which one-and-a-half is not as good as two, and we've got a bigger percentage of those wells. So we're getting hurt, and that's part of the reason that we are sticking with that JOA in terms of what we want. And that's why we're fighting here. That's why we're here for a reason. We -- we see poor economics there versus participating in two-miles.

Q. But whether you want to be participating under a pooling order or as a nonconsenting joint operating party, if you don't agree with the north-south orientation -- every other party to the JOA has agreed to it, has committed their interest to it. So you'd be subject to that orientation whether you're under the JOA or whether you're under the pooling order, correct?

A. I think there will be a very long fight over the JOA before it's all said and done. It'll be outside of this Commission.

Q. Okay. Now, just so I understand, because I don't understand this chart, where do these numbers come from in the Premier capital costs. They're not broken out. How do I assess what these values are for?

A. So the exact same Mewbourne well, which, again, is the most cost-effective operator we know of, that well cost us $8.75 million. It didn't cost us. Our percentage was in the 20 percent range, plus. But the actual cost of the well was 8.75 to drill it. No LOE costs. That's simply our analysis within ourselves, saying -- and the difference between that well and where we're drilling right now is roughly -- that well was maybe 800 to 900 feet deeper, TVD was. So I took off a quarter of a million dollars in my analysis, and I gave the benefit of the doubt that Chisholm can drill a well as good as Mewbourne can. And that's a hard thing to do.

Q. You haven't proposed these -- any of these -- any wells or costs to Chisholm, have you?

A. Again, I've made the suggestion.

Q. But did you actually identify costs? Did you tell them -- did you identify --

A. We did not make the formal -- we have -- we have actively been pushing them to increase their completion size so that -- we know the additional costs are going to be -- are coming our way.

Q. Did you informally make the suggestion about what the costs would be for an east-west-oriented well, as you suggest here?

A. I did not make a formal one.

Q. Did you make an informal one as to these costs?

A. This would be the first time they've seen it. This is -- this is based on our internal estimation of what the wells will cost.

Q. Do these costs in this chart include facilities?

A. Yes. It would include facilities.

Q. Where does it include facilities?

A. I didn't -- again, I did not break down every little line item, but based on our 8.75 million cost, there was facilities with that well.

Q. Okay. And is it facilities for all four wells that you're suggesting?

A. Yes. That's what I'm suggesting.

Q. How about pipeline costs?

A. Yes. It would include that, too.

Q. You just didn't break them out?

A. No. I just broke down an AFE and tried to keep it very general.

Q. Okay. But you've never prepared -- have you ever prepared an AFE before?

A. Yes.

Q. You have prepared an AFE?

A. Yeah.

Q. No further questions.

A. We probably did more than -- but prepared them.

Q. Actually, I do have a quick question about the Devon document, just so I'm clear. The Devon document, you didn't prepare this document?

A. No. This is straight from Devon.

Q. And are you adopting the conclusions and opinions from this document in your testimony?

A. Yes. We've actively used this information in making business decisions.

Q. And is this -- is this -- you're adopting this as an opinion for yourself; is that correct?

A. I'm adopting it as an opinion, and I'm adopting it as a data point for -- in connecting the dots with what you're about to see.

MR. RANKIN: Mr. Examiner, I have to object to the admission of this exhibit. It's -- we don't know how old it is. It's anywhere from three, four, five years old. It was prepared by Devon for a different purpose, at a different location. It was -- Mr. Jones has testified and he's not an engineer, not a geologist. He's adopting the opinion of an expert who we have not had a chance to examine or review. And under the rules, that's total hearsay, and it should be excluded from evidence.

EXAMINER BROOKS: Well, he said he adopted it as his opinion, and he's qualified as a practical oilman, so I think we should admit it for whatever worth it has.

EXAMINER McMILLAN: Well, Exhibit 4 will be accepted as part of the record.

MR. RANKIN: No further questions.

EXAMINER McMILLAN: Okay. So then you're requesting Exhibit 1, Exhibits 2, 3, as previously stated, Exhibit 5 and Exhibit 6.

MR. RANKIN: No objections other than the objection to Exhibit Number -- with Exhibit 4, which is overruled.

EXAMINER McMILLAN: Exhibits 1 through 6 may be accepted as part of the record.

(Premier Oil & Gas, Inc. Exhibit Numbers 1 through 6 are offered and admitted into evidence.)

MR. RANKIN: No further questions.

MR. PADILLA: We'll call Dan Jones.

I don't have any further questions.

EXAMINER BROOKS: I have no questions.

EXAMINER DAWSON: I have one question.

THE WITNESS: Yes, sir.

CROSS-EXAMINATION

BY EXAMINER DAWSON:

Q. Mr. Jones, in looking at your Exhibit 2 --

A. Yes, sir.

Q. -- you have the east-to-west wells depicted on that exhibit. And looking down in Section 6, the unleased portion --

A. Yes, sir.

Q. -- the west half of Section 6, it looks like there are some lines in there. Are those proposed wells, or --

A. Yes, sir. They are old APDs by -- gosh. I want to say Marathon, but that's not right. I'm blanking. They're old APDs and the leases expired.

Q. So when those APDs were approved, did the City of Carlsbad water well -- the municipality of Carlsbad, did they have an objection to those proposed locations when those wells --

A. I'm not familiar with that, sir.

Q. And then there are some wells going down below that, in that section to the south of there, which is -- let's see -- Section 7. Was that the same company you proposed --

A. Yes, sir. I think it was -- my memory's coming back. I believe BC Operating did it, and then BC

Operating sold to Marathon. And I don't know the story of the lease expirations. According to our maps, they expired in 2011. I actually called the State trying to figure that question out and found out it was unleased. Subsequently in a conversation with Mr. Sullivan, they had became aware of it, and they nominated it.

Q. So there's roughly like five wells down in Sections 6 and then 7 to the south. Those were all proposed but never drilled?

A. They were never drilled.

Q. That's all the questions I have. Thank you.

CROSS-EXAMINATION

BY EXAMINER BROOKS:

Q. I have a question. Your ownership is confined to 31 and the west half of 32; is that right?

A. That's correct.

Q. And that's the only thing that's included in your contract area for your operating agreement?

A. Yes, sir. It's a little bit difficult because -- to tell that story, Devon was going -- Devon sold and subsequently, in the title examination, Resource Rock, who was the prior owner to Chisholm, found out that 160 of the acres in the west half of 32, Devon had failed to pay shut-in royalties on, because it was actually carried by the Delaware wells on this side.

So the State Land Office took the leases back. Premier lost 20 percent on 160 acres.

Subsequently -- I mean, I've got a map over there that kind of explains it. But subsequently Resource Rock won the bid on 120 of the acres, and because of the uniform interest clause within the JOA, they had to offer us back our portion of that, and we executed that around October 1st. That auction took place in September.

There are two other pieces that Devon lost in that on the east half of 32, and it included what would be the northeast of the northwest for Unit C of that section. And that piece went in with the northern part of what would probably be the north -- what would be Units A and B, I believe, of 32, and Chisholm purchased that in the auction, along with the southern acreage.

So the correct testimony is if we do drill east-west, there's really only going to be three people that I'm aware of. There could be one little piece in there that's got some ownership, but Chisholm's interest would actually increase.

Q. Premier owns an interest in everything in the west half of 32?

A. Outside of -- we lost that -- our 20 percent of

that 40 acres, which would be Unit C.

Q. But you didn't get that back?

A. No, sir. Under the JOA, Chisholm --

Q. Well, it's in the contract area, right?

A. It's in the contract area.

Q. And that carries the east half. But the people who got something because a lease expired wouldn't be parties to the JOA, would they, if they got something --

A. Well, Chisholm owns that 40 acres now. I mean, I've got a map that would explain it to you, but --

Q. Well, I don't need all the details. I'm just trying to figure out the general outline.

Premier owns interest in most of the west half of --

A. In seven of the eight 40s, we still have our 20 percent.

Q. Do not have any interest in the east half, though?

A. We do not have any interest in the east half.

Q. So if you're going to propose wells -- east-west wells that go two miles, like you showed in your diagram, you would have to either have a new operating agreement, or you'd have to compulsory pool that acreage, right?

A. Well, I don't know that -- I don't know that's

a fight I would want to -- compulsory pool it. But we certainly have the ability to propose mile-and-a-half laterals based on what it is. We've asked Chisholm -- we'll go east-west with you. We'll participate all day long. We just want to be east-west.

Q. Well, you could propose an east-west. You could propose -- Premier could propose a mile-and-a-half east-west well any day, right? If you own the acreage, you have the right to propose wells under the JOA?

A. Under the JOA, we would have right to propose wells.

Q. Chisholm would have the right to operate it if they wanted to?

A. Chisholm would be the operator.

Q. Okay. Thank you.

EXAMINER McMILLAN: I'm done with my questions.

MR. RANKIN: May I ask a quick question, follow-up, on Mr. Brooks' question, just one question?

EXAMINER McMILLAN: Yes.

RECROSS EXAMINATION

BY MR. RANKIN:

Q. Mr. Jones, do you have any intention of proposing any east-west wells in this area under the JOA or otherwise?

A. Our intention is to work with Chisholm to drill the best wells at all possible.

Q. The question is: Do you have any intention to propose any east-west wells in the contract area or in any orientation -- any other location in the subject area? Do you have any intention to drill any east-west wells in Sections 31 or 32?

A. Yes. We could -- we could go down that path road, but it's a path road now that's complicated by the fact that Chisholm's going to drill the wells --

Q. Just -- do you have any plans to propose wells for east-west?

A. Yes. We would easily make plans to drill an east-west well.

Q. That's not my question.

Are you intending -- do you plan to propose wells in the east-west direction?

A. We are intending --

EXAMINER BROOKS: I think we've gone far enough down this. You know, if he has proposed a well, that's one thing. That's a fact you can ask the witness, but about his intention, it can be -- we can waffle over that all evening. Let's move on.

MR. RANKIN: Okay. No other questions.

MR. PADILLA: We'll call Dan Jones.

EXAMINER McMILLAN: Please proceed.

DANIEL A. JONES,

after having been previously sworn under oath, was questioned and testified as follows:

DIRECT EXAMINATION

BY MR. PADILLA:

Q. Please state your full name.

A. Daniel Arthur Jones.

Q. Where do you live?

A. Dallas, Texas.

Q. What's your position with Premier Oil & Gas, Inc.?

A. Vice president.

Q. How long have you been vice president?

A. Since 2009.

Q. You have not previously testified before the Oil Conservation Division?

A. True.

Q. And you're an engineer?

A. I am.

Q. Can you tell us about where you were educated as an engineer?

A. I got a Bachelor of Science from Baylor University in 1999. I worked -- I was an aerospace engineer for over ten years, three different companies.

Q. Where did you work?

A. I worked at Johnson Space Center first. There, I was -- I worked in robotics, kinematic and dynamic analysis of the shuttle and International Space Station arm.

After that, I worked at Raytheon in aircraft integration as a stress engineer, basically for analysis of load-bearing beams, intercostals, bulkheads, that nature.

Q. On aircraft?

A. On aircraft.

After that, I worked at Lockheed Martin.

Q. What did you do there?

A. There, I was design lead for the wing carry-through for the bulkheads 425 and 450.

Q. And is that an aircraft?

A. That's from the Joint Strike Fighter.

Q. Now, when did you quit working there?

A. I formally left Lockheed in, I think, September of '09, I believe, if I recall correctly.

Q. And what did you do next?

A. I already had been working part time for Premier since I think around mid-2006. I wasn't in the trick of the trade. I've been around the business my whole life, same as my brother, but learning how -- you

know, there's a term that, you know, sometimes engineers use. It's called the shibboleth [sic; phonetic] quarter [sic] piece. It's an idea where, you know, there's principles that cross between but know the terms that they're using and how they're using the principles they apply. You know, like, for example, how -- how -- hyperbolic exponent. In this industry, they call it a B factor, things like that. You know, if someone talks about B factor, they're talking about a hyperbolic exponent that every mechanical engineer would know.

Q. So what have you done for --

A. What is my capacity?

Q. -- for Premier in the petroleum industry?

A. I do drilling and completions. I do some -- I do some things that overlap with what a geologist does, for mapping, you know. I've got to -- we're small. I've got to be a jack of all trades. I've got to learn things and get up to speed. I'm also a competent C++ programmer. I've written our own in-house programs for doing volumetrics stuff by following industry standard, what the formulas are.

Q. For oil and gas?

A. For oil and gas.

Q. So would you classify yourself as a petroleum engineer at this point?

A. At this point, yes. I was not an aerospace engineer, but I became an aerospace engineer after ten years of working in that industry.

Q. Did you make a study of some of the performance of wells included -- estimated ultimate recoveries for some of wells that you studied in relation to --

A. I did.

Q. -- this hearing?

A. I did.

MR. PADILLA: I would tender Mr. Jones as an expert petroleum engineer.

MR. RANKIN: I think it depends on what he's going to testify to and what his opinions are. I may take the time to voir dire a little bit. I have no objection to admitting him as an expert for purposes of testimony today, but through reservation, I may push him on a couple of his opinions, depending what he has to say.

EXAMINER McMILLAN: Okay. So he's qualified as an engineer -- qualified as a petroleum engineer?

MR. PADILLA: Yes. That's what I've tendered him as.

EXAMINER McMILLAN: But part of it was trying to extend it to a geologist.

THE WITNESS: He asked me what my duties were. So I do things like cross sections, things that geologists do, mapping, isopach maps. I do those activities. We don't hire somebody to come do them. I do them. So that's why -- he asked me what my duties are at the company.

Q. (BY MR. PADILLA) Well, for purposes of this hearing, you're a petroleum engineer --

A. Right.

Q. -- correct?

EXAMINER McMILLAN: That's fine. We'll accept you as a petroleum engineer.

THE WITNESS: Right.

EXAMINER McMILLAN: Please proceed.

Q. (BY MR. PADILLA) Did you prepare Exhibit 7?

A. I did.

Q. And what is that?

A. It's -- it's basically two townships, 23 South and -- 23 South, 26 East and 23 South, 27 East. And I did, primarily, most of my decline curves in 23 South, 27 East, though I did do the Red Light well.

Q. Before we move on, let me ask you: What is that circle labeled "Matador"?

A. Okay. So the circle labeled "Matador" are basically -- one, two, three, four, five -- six

east-west wells, and at the bottom, in Section 25 of that circle, you've got two north-south wells. And that was my -- very much my -- not the target area of what is going to be the proposed wells to be drilled, but the target area of what I saw as wells that had common properties. And they were the same length; they had the same landing zone in the same formation.

Q. I understand. You're getting ahead of me here. But I just -- I just asked you are these -- is this circle the same Matador wells that we've been talking about in this hearing?

A. Yes.

Q. Okay. That are about ten miles away from our area?

A. Yes, sir.

Q. Okay. And if you look over on the left side -- upper left side, is that -- there is a target area in that half circle.

A. Yes. That's near the region of where the proposed well would be.

Q. Okay. And that shows --

A. Just wanted to show it in relationship to where these two places are.

Q. As you scan this whole map, you see wells there that are north -- east-west and north-south, right?

A. Right.

Q. And are those wells Bone Spring?

A. Are they Bone Spring? Most of these wells are Wolfcamp. You've only got a very few wells that are Bone Spring, and those wells are in 23 South, 26 East.

Q. Okay. And now you've taken -- you've taken the red circle maps --

A. There is only one I know that's -- just to back up for a minute. There is only one well in 23 South, 27 East that is a Bone Spring well. I think it's probably -- I'm guessing right now that it's in the 3rd Bone Spring. It's only got one-month production. It's drilled east-west, the Cass 16.

Q. Okay. But generally that gives us a picture of what's out there --

A. That's a picture of the area.

Q. -- in terms of east-west locations, right?

A. Right.

Q. Wells?

A. Right.

Q. What does -- the exhibit that follows Exhibit Number 8, what is that?

A. These are all Matador's wells, basically they're drilling proposals and the wells that are actually in active production. And the green -- the

ones highlighted green are the ones in the red circle on the map on those three pages.

Q. All right. So why did you pick Matador?

A. Well, for one, they're one of the most prolific, you know, Wolfcamp drillers in the region, so they're somebody to pay attention to. But I picked these wells out -- and we heard Mr. Roth talk about analyzing, you know, wells within a common geological region. Well, we were told this is a common -- this area has common geologic properties. Okay? And these wells are drilled in the same formation and the same length, and they have the same frac size. So that tells me a lot. That gives me a common thing to compare to. I'm not jumping to, say, the Wolfcamp B, or I'm jumping to, you know, different length of wells or different frac sizes, because that can complicate how you look at your estimated ultimate recovery.

Q. Okay. So what are you trying to show with this exhibit?

A. What I'm trying -- the thrust of this exhibit is this: You've got two north-south wells down here that are drilled the same -- they're drilled in the same zone as these six east-west wells in the zone, and they underperform.

Q. And the six east wells are the ones highlighted

in green?

A. Well, there are some -- the ones in the north-south are also highlighted in green. They're the last two called the Warren 25 RB and the Warren Federal Com. Those are the two north-south wells.

Q. They're not highlighted in green?

A. Well, they're highlighted in green on our last page of the exhibit. They're highlighted -- they're in the bottom of Section 25 of 23 South, 27 East. The bottom part of the -- the bottom part of that circle captures them.

Q. And what conclusions do you draw from that?

A. That looking at what they're doing here in a common area, geologic region, as we heard from Mr. Roth, and wells that are drilled with the same -- have common properties, that the east-west orientation is better.

Q. Okay. Let's take the well on the first page, the #203H. That's the fifth well down. Let's go through that. You have the well number, and then you have the zone. What does WC Y mean?

A. That's the Y zone, Wolfcamp Y, X-Y, I believe.

Q. Okay. And then you show the orientation, north-south, east-west?

A. Correct.

Q. What does the H stand for? Horizontal?

A. Horizontal.

Q. All right. And the number of days of production? 737?

A. Right.

Q. And total oil is 141?

A. Yeah, total oil to date.

Q. And then total gas?

A. Right.

Q. And then you have an EUR for oil, correct?

A. Right.

Q. Okay. As you go down -- now, on the second page, you don't have any -- any -- well, you do have -- you don't have any EURs on the second page?

A. Yeah. Those -- those are -- most of those are -- I only put the EUR number -- value number for those six wells or those -- excuse me -- those eight wells on this sheet.

Q. Okay. And how do they estimate -- did you draw an estimated decline curves for these wells?

A. I did.

Q. And is that on another exhibit?

A. Yeah. That's on Exhibit 9.

Q. All right. Now, let's go through this, make sure -- because we've gone through a lot of wells here. Tell us first, on the first page, what that is?

A. So that's the decline curve for the oil for the first green one, which is the DR K 24-23 South 27 East RB 203H.

Q. And that second page is the --

A. The gas.

Q. Yes.

A. So they're basically in order of -- as you consecutively count them on the green -- the highlighted green on Exhibit 8.

Q. How would you rate this well overall?

A. This well? I think it's a fine well. I mean, it's not the best well in there, but it's a good well.

Q. Let's go on to the last two pages and tell us what well is depicted on this graph.

A. On which page?

Q. The last two pages.

A. Of Exhibit 7 or 9?

Q. Exhibit 9.

A. I'm sorry.

Q. We're talking about the Warren Federal Com.

A. Okay. The Warren Federal Com 203H, it's the last four pages, and the Warren Federal Com 206H -- is that the ones?

Q. Yes.

A. Okay.

Q. I'm looking at the last two pages. One is for gas and the other is for oil.

A. Right.

Q. Then we looked at two previous pages before that, and those are the wells that are drilled north-south; is that correct?

A. On the previous pages?

Q. Yes.

A. Yes.

I'm sorry. Can you back up, because you said the previous pages are north-south?

Q. Previous two pages -- let me start all over.

A. The last four pages are north-south. The ones coming before that are the east-west wells.

Q. Okay. Okay. How do these -- how do the wells on the last four pages -- the two wells on the last four pages --

A. Right.

Q. -- how do they compare with the east-west wells?

A. None of them, from my analysis, performed as well as the worst east-west well I analyzed.

Q. Which was the worst east-west well?

A. That would be the DR K 203H, I believe.

Q. Let's count the pages so we can --

A. It's the first -- it's basically the first one.

Q. The first well on Exhibit 9?

A. Yes.

Q. And you're comparing that with the two wells that are drilled north-south?

A. Yes.

Q. And you're saying that's the worst well?

A. Yes. That's the worst, I think, east-west well.

Q. And which is a better well?

A. It's still better than any of the two north-south wells.

Q. And how about the other wells on this exhibit?

A. Well, I think what's interesting -- my brother complains that I'm too conservative in my curves. But Matador had, in one of the slides -- I don't remember which exhibit it is, if I can flip back to it, the one that they produced for their investors. Most of the stuff that gets posted for investors, I look at it with skeptical eyes. But there was one Joe Coleman well in here that I approach close to their 900 -- 900,000 barrels of oil equivalent. So I think that's something that, you know, they're not -- I corroborated part of their data, if that makes sense.

Q. What's your overall opinion on east-west --

A. My overall opinion is this is an area of limited data, and this is the only place I can really go to get a real -- a comparison with wells of common properties. Okay? And I feel like this is the best place I can get something that's going to tell me to make -- tell my brother and give himself something to make a business decision as to what we're going to do. And I think east-west is the best way to go based on the limited amount of data we've heard, and we've heard about a lot of limited data today.

Q. Now, you're going to be asked if there is any geological relation between the Matador wells on your -- on your Exhibit 9 in the target area, and you don't have that, right?

A. Right. But I at least analyzed wells that have common geological properties in their area. So when we saw north-south wells that didn't do as good with common well properties, it's the only data we've got where we've got common well properties. I did -- I excluded the 2nd Bone Spring wells up in here, in 23 South, 26 East.

(A) Nobody's really cracked it up there and made a really good Bone Spring well, I don't believe, more than 52 barrels, one.

Number two, the well that was in question

that was an east-west well has big, big mechanical problems. So to me that's not a good -- if you're going to compare data, look at the data and find common properties and find out what those are.

Q. And you're talking about the Daisy Duke well, right?

A. Yes.

Q. And you're saying you can't compare that well --

A. It skews -- it skews -- it doesn't tell you anything. Tells me nothing.

Q. Does your information on Exhibits 8 and 9 achieve -- the data?

A. That's circumstantial evidence. Yes. I can't speak to the geology of it between the two areas, but as --

Q. You're talking about east-west?

A. Yes. It's another piece of circumstantial evidence that corroborates to do this.

MR. PADILLA: I don't have any further questions.

MR. RANKIN: I have a few questions.

EXAMINER McMILLAN: I've got to take a five-minute break.

(Recess, 5:50 p.m. to 5:55 p.m.)

EXAMINER McMILLAN: Okay. Call Case 16115 and Case 16116 back to order.

Please proceed.

MR. RANKIN: Thank you, Mr. Examiner.

CROSS-EXAMINATION

BY MR. RANKIN:

Q. Mr. Jones, looking at Exhibit 7, just so I'm clear --

A. 7?

Q. Your Exhibit 7, right --

A. Yeah.

Q. -- Premier Exhibit 7 --

A. Yeah.

Q. -- you drew a circle -- a red circle around a group of wells --

A. Right.

Q. -- right?

And you took those group of wells and you listed them on Exhibit 8; is that correct?

A. Yes, that's correct.

Q. And the wells that were in that red circle are highlighted in green, right?

A. They should be. Yeah. They could be -- I'm not absolutely sure if there are some drilling proposals in there, but I'm pretty sure those are our subject

wells.

Q. So the wells you had -- and then you took the wells highlighted in green and you --

A. I ran decline curves on these two townships, okay, on 80 percent, to see the type curve. Okay?

Q. And the decline curves, you included in Exhibit Number 9?

A. Right.

Q. Only those within the red circle?

A. That's right.

Q. So you're not showing us your analysis for any other wells other than the wells you picked in that red circle?

A. Yeah. I didn't list them. Actually, I have it in my backpack over there, but we didn't feel the need to submit all that data.

Q. Okay. So we don't know how those compare -- those east-west wells in Section 16, say, of Township 23 South, 27 East --

A. Well, you're talking about the C State, the Cass 16 and that group and the Cypress?

Q. I'm talking about every other well in that township that --

A. Well, I found wells that have common properties, Mr. Rankin.

Q. What is your basis for determining common properties?

A. Okay. The landing zone and what is their geologic formation they're entering. Those have the same -- those have the same ones.

Q. So the landing zone and the interval, basically?

A. Yes, and the length of the lateral --

Q. Uh-huh.

A. -- the frac sizes and -- something else I'm missing here that I stated earlier. I'm kind of going blank here for a second.

Q. Did you conduct decline curve analysis on any other wells in the vicinity -- immediate vicinity of the proposed wells in this case?

A. The immediate vicinity? I did the Red Light well, if you want to call that the immediate vicinity.

Q. Where is the Red Light well?

A. It is spanning 27-34 north-south and then 23 South, 26 East on the map. So if you go directly kind of southeast of the -- of the -- it's right here (indicating). Does that help you?

Q. Yup.

So you have a decline curve there, but you didn't do any of the wells --

A. I didn't -- like, I didn't do the Ghostrider because it's only got two or three months' production. I didn't do the 2nd Bone Spring wells because they're not a -- they're not a proposed target area, and I don't think they really tell us a whole lot.

Q. And you didn't do a decline curve in any of the wells in Section 31 and Section 36?

A. Yeah. Those are all the Bone Spring wells right there -- the 2nd Bone Spring wells.

Q. And those are proposed wells?

A. The proposed formation that we're going to be drilling into.

Q. Now, when you conducted your decline curve, did you use -- what kind of decline curve do you use?

A. I used -- I used a hyperbolic curve with a final -- final decline of 7 percent.

Q. Okay. And in terms of economics, what is your cutoff based on? What was your economic limit?

A. My economic limit was -- was 30 -- 30 barrels a month for oil and 100 Mcf of gas.

Q. And what prices did you use --

A. I didn't -- I'm not giving values on -- on -- on economics for oil.

Q. Okay. So you didn't use any prices?

A. I didn't like stick that into -- like you're

going to spit out a PV10 value.

Q. So you didn't use net royalty interests or operating costs or --

A. No, no, no, no. Just strictly looking at the production.

Q. Now, looking at Exhibit 7, do you know what the reservoir pressure is in the area under your -- within your red circle?

A. No.

Q. So you don't know what the reservoir pressure is relative to the reservoir pressure in the area of the subject wells in these applications?

A. I think it's a safe assumption that the wells in red are going to have a very close relationship in terms of their reservoir pressure.

Q. But you don't know the reservoir pressure?

A. I don't know what the reservoir -- I don't know that value.

Q. So what effect would a higher reservoir pressure have in this area?

A. You're going to have a higher rate.

Q. Higher rate of what?

A. You could especially have a higher initial rate.

Q. A rate of what?

A. It's a relationship.

Q. I mean, I just want to know, a rate of production, or what is it you're talking about?

A. Yes. Yes, a higher rate of production.

Q. So you don't know how the reservoir pressure compares in the area you circled in red versus the target area you've got in blue?

A. I don't know.

Q. One other question I meant to ask you, and I don't have -- let's see. I don't know if you have your spot here, Chisholm's Exhibit Numbers 20 and 21.

A. Can you show me that exhibit?

Q. Yeah. Do you see Exhibits 20 and 21?

A. I do.

Q. Did you look at those earlier today?

A. Did I look -- yes, when -- when the engineer was being examined.

Q. Right.

Now, looking at those exhibits -- I gave you my exhibits.

Just real quick, in your understanding, there were some wellbore integrity issues for the well in Section 31 -- for the east-west well in Section 31 --

A. The Daisy Duke.

Q. -- right?

A. Yes. That is my understanding. That is correct.

Q. Are you aware if there were any mechanical or operational issues with respect to the well in Section 9, the east-west well in Section 9?

A. Which one is that? Give me a well name and number.

Q. OXY Boo. I believe it's the OXY Boo. It's the east-west well in Section 9.

A. I don't know. No, I don't know.

Q. Do you have any -- any explanation or basis for what the lower cumulative or projected EUR is for that well?

A. Well, TVD on this well is 6,486 and -- let's see. I don't recall what the TVD is on the Daisy Duke. No. I did not do a decline analysis -- like I said -- I explained this earlier. I don't believe that anybody has really cracked the 2nd Bone Spring as being a prolific target area, you know, in this area, and there is not a lot of data there.

Q. Okay. But the adjacent wells that are north-south in the 2nd Bone Spring --

A. And it's not a target zone that's being proposed. Why am I interested in analyzing the 2nd Bone Spring for decline rates? I don't see the relevance.

Q. Okay. But I'm asking you: Do you have any -- do you understand if there is any basis for the lower production?

A. On the Boo? No, I can't say.

MR. RANKIN: No further questions.

MR. PADILLA: I don't have any questions. Pass the witness.

EXAMINER DAWSON: Michael, any questions?

EXAMINER McMILLAN: Go ahead.

EXAMINER DAWSON: I don't have any questions.

EXAMINER BROOKS: I don't have any questions.

Has everybody offered their exhibits?

MR. PADILLA: No. I offer Exhibits 1 through 10.

EXAMINER McMILLAN: You've already done 1 through 6.

MR. PADILLA: Right.

THE WITNESS: Ernie, are these yours?

EXAMINER McMILLAN: So you want Exhibits 7 through 10?

MR. PADILLA: 7 through 10.

EXAMINER McMILLAN: Any objections?

MR. RANKIN: Other than the one objection

that I raised that was overruled, I have no other objections.

EXAMINER McMILLAN: Exhibits 7 through 10 may now be accepted as part of the record.

(Premier Oil & Gas, Inc. Exhibit Numbers 7 through 9 [sic] are offered and admitted into evidence.)

EXAMINER BROOKS: Okay. Anybody have anything further?

MR. PADILLA: I don't have anything further. I think we would be just repeating a lot of stuff in closing arguments, unless you want to hear closing arguments. I'm always willing.

EXAMINER BROOKS: Well, at this hour of the day, I think we'd rather -- any closing argument be submitted in writing.

MR. RANKIN: Mr. Examiner, we have a few items to address on rebuttal, one of which is the location issues that were raised, environmental concerns. And I don't know if -- I understand it's late. I don't want to keep everybody much later, but I would like to address some issues on rebuttal.

EXAMINER BROOKS: Who are you going to call as a rebuttal witness?

MR. RANKIN: Mr. Roth, the geologist, who

addressed some of the issues about the differences in the geology between the two areas that Mr. Jones was analyzing in the production, and then Mr. Huling to review some of the engineering and operations and plans to proceed to drill.

EXAMINER BROOKS: Well, that seems like a lengthy addition to the proceeding, but I guess you have that right.

EXAMINER McMILLAN: Yeah. I believe they have the right.

EXAMINER BROOKS: I think they have the right.

EXAMINER McMILLAN: Proceed then.

MR. RANKIN: I'll try to keep it as tight as possible.

Mr. Roth, I'd like to re-call you to the stand, please.

EXAMINER McMILLAN: Premier has no Exhibit 10? Okay. So it's 9.

Thanks for setting --

EXAMINER DAWSON: Sure.

EXAMINER McMILLAN: -- the record straight.

GEORGE W. ROTH,

after having been previously sworn under oath, was re-called and questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Roth, you heard Mr. Jones' -- Mr. Dan Jones' testimony about his comparison of the geology between the zones that he analyzed and the geology of the zones within the area of the proposed wells that are the subject of this application, correct?

A. Yes, I did.

Q. And is it your opinion, based on your evaluation of those two areas -- or those areas, that the geology that he referenced is analogous to the geology within the area of the proposed wells under these applications?

A. I don't think it is analogous. No.

Q. And you provided testimony earlier that the geology is different, correct?

A. Yes.

Q. And what is the basis for the difference?

A. The regional mapping that I did and it's based upon the thickness of the interval and the quality of the reservoir, 8 percent porosity.

MR. PADILLA: Objection. We're going into -- we're not going into geology. I don't think that Mr. Dan Jones testified as to geology. He testified as to four items, one of which he couldn't

remember. There was the landing zone, production, that sort of thing, but I don't think he testified about geology.

MR. RANKIN: Well, Mr. Examiner, he testified that Mr. Roth's testimony was that the geology was the same.

MR. DANIEL JONES: I did not.

MR. RANKIN: The testimony speaks for itself.

EXAMINER BROOKS: I'm going to overrule the objection, see what the witness says.

MR. RANKIN: Go ahead, Mr. Roth.

THE WITNESS: What's the question?

Q. (BY MR. RANKIN) Just what are the geological differences between the areas that Mr. Dan Jones evaluated and the area that is the subject of those two wells under this -- these --

A. My opinion, in the mapping that I've done, is the sand is much thicker in the Matador area. You have a better quality of sand for sure. You have better porosity and better permeability.

Q. Is that -- is that the same opinion you hold in the area where the OXY wells are drilled that he identified, which are just to the southeast of the Matador?

A. I would say they're very similar. Matador and OXY are very, very similar but not analogous to our area.

Q. And is that true as well for the wells in the area that Mr. Dan Jones identified for his decline curve analysis?

A. Were those the Matador wells?

Q. Yeah. Sorry. I think that's correct. I think they were Matador wells.

A. Again, your question is?

Q. Is that opinion as a geologist different for that area -- or it is the same, correct?

A. Yes. Yes, it is.

Q. Now, do you know what the reservoir pressure is in that area?

A. I don't have that specific number, but I have been looking at the mud weights that are used to drill these wells, and the mud weights used to drill the wells down here in the same formation are much higher. They're considerably higher compared to the wells drilled around our area. That makes me think that they're in an overpressured zone.

MR. PADILLA: Objection, speculation. He's saying he thinks. We're going all over. I've got to raise my objection again with another geologic --

Mr. Roth testified on direct -- not really on direct, on the first rebuttal about geology, and now we're going right back to that same position. It's not rebuttal testimony at this point. That's not -- it's part of direct testimony.

MR. RANKIN: Mr. Dan Jones testified about the production of those Matador wells. And he did testify he did not know whether or not there was a difference between the reservoir pressure between those two zones. And I'm just asking Mr. Roth whether he can, you know, elucidate what might account for the difference in production in that area.

EXAMINER BROOKS: I'll overrule the objection.

Q. (BY MR. RANKIN) Mr. Roth, what does it say to you that higher mud weights are used in this area relative to other areas in the area?

A. Higher mud weights to me mean there is more pressure to be dealt when you're drilling the well.

Q. So what effect would the higher pressure have on production in those wells?

A. Higher pressure means better production.

Q. Now, Mr. Roth, I'm going to ask you to review what I'm marking as Exhibit Number 22, Chisholm Exhibit Number 22, and it's titled -- there is an aerial

photograph on the left and a topographic map on the right, and it's titled "Fixed Wing Aerial Photograph 2011-2014," and on the right, it's "USGS Topographic Map." Do you have that exhibit in front of you?

A. Yes, I do.

Q. Will you review for the Examiners what that exhibit shows and why it's relevant to the plan of development Chisholm has for the area?

A. The aerial photograph on the left shows our unit again and the pad size down there where we propose to drill. That same pad size we've taken and put up in the northwest quarter in an area that topographically isn't very difficult, and then using a negative vertical section swing-out, which we do all the time, we can north-south from that pad all the wells that we would propose.

In addition to that, there is very -- not quite legible, but the aerial points to it, a proven existing two-lane track road to that location. There is already a road there. It's not like we're going to be disturbing something different or new.

The diagram on the right is a topo map that's a USGS seven-and-a-half minute quad. Contour interval was 20 feet. It's a big contour interval. You'll see it's labeled "34" and "35." Those are

100-foot contour intervals. So it's 20 foot, the smaller one, and maybe 20 for the larger ones that are labeled.

Taking that same model with the plat -- or I'm sorry -- the pad, putting it up there in that area, there is approximately 20 feet of elevation change across that pad. So I think the point being that we can build a location up there, and our company has done many of these in much more difficult terrain in the mountains of the Pennsylvanian when we were doing the Marcellus and Utica. If these guys can build them on the side of a mountain, they can build them on something this flat.

Q. So that is a two-track road that goes by the proposed well pad?

A. It goes right by.

And when we out staking this location, our man in the field went up there and felt like he could build that pad up there as we've defined it on this topo sheet and on the aerial photograph.

Q. No further questions, Mr. Roth?

MR. RANKIN: Pass the witness.

Mr. Examiner, move the admission of Exhibit 22 to the record.

EXAMINER McMILLAN: Objection?

MR. PADILLA: No objection.

EXAMINER McMILLAN: Exhibit 22 shall be accepted as part of the record. It's a Fixed Wing Aerial Photograph.

(Chisholm Energy Operating, LLC Exhibit Number 22 is offered and admitted into evidence.)

JAMES HULING,

after having been previously sworn under oath, was re-called and questioned and testified as follows:

DIRECT EXAMINATION

BY MR. RANKIN:

Q. Mr. Huling, you previously testified and you're still under oath. Do you understand that?

A. Yes, sir.

Q. Okay. Mr. Huling, you heard some testimony today about costs between what Premier suggested to Chisholm and what Chisholm actually proposed in an assessment and well proposal to Premier. Did you hear that testimony?

A. Yes, sir.

Q. Would you care to opine or give your analysis of Mr. Dan Jones' -- rather, Mr. Ken Jones' cost assessments with respect to his analysis of the Chisholm's costs?

A. I certainly respect Mr. Jones' perspective and

opinion.

Looking at many operators, we have operator AFEs that we get in that are much higher and costs that exceed. I will tell you that the team of Chisholm Energy came in at a range. They went into the Barnett Shale and drilled wells cheaper, increased EURs, and we are definitely one of the leaders there. When this team went to the Marcellus Shale, same thing; we're the drivers on that play up there.

So as far as costs, this team definitely works very hard to drive down costs. That's part of the reason why we have four rigs running and setting up operations to have synergy and, you know, bidding power. When we go into an area, we usually want to just drill one well. We'll drill one, two, three or four wells to keep costs down.

And I can tell you, at year-end, which I handle year-end reserves, we prepared a -- Gallis, Key & Associates [phonetic] prepared third-party -- report for us, and when we reviewed all our costs, our costs were within 7.8 percent of AFE costs on wells we had completed data on. So I will tell you that I understand the skepticism, but I will tell you this team has performed over and over on keeping costs down.

Q. Now, with respect to operations, those AFE

costs that you propose to pay into, do they include facility costs for each well?

A. Facility costs, a pad with allocation.

Q. Okay. Now, you had mentioned that Chisholm has four rigs out there at this time; is that correct?

A. That is correct.

Q. And what is Chisholm's plan -- you heard Mr. Ken Jones testify that they had not proposed wells for this acreage; is that correct?

A. Yes.

Q. And you not only propose these wells, but you intend to drill them forthwith, correct?

A. Yes. We have a -- one rig dedicated to this area in our upcoming drilling plan.

Q. And when is that -- do you have a schedule for when that rig --

A. We should have a rig here in about two weeks.

Q. You're ready to drill these wells within two weeks?

A. Yes, sir, this first well.

Q. Okay. And are you aware of -- does Premier having any rigs running in the area?

A. Not that I'm aware of.

Q. No further questions.

Do you have a final --

A. I was going to say -- yeah. On the environmental side, I will tell you that this has been vetted with an environmental firm and signed off by the City of Carlsbad and their Water Resource Board. We have operated wells in the Barnett Shale in Fort Worth and the Trinity River Basin. We've operated wells in the Pennsylvanian, you know, this team previously, and are very, very environmentally conscious.

Q. When you say it's been signed off on and approved by the City of Carlsbad, are you talking about the -- your proposal for these at issue today?

A. Yes. Yes, correct.

Q. Will you go through that same process with any proposals or wells on the west half of this area?

A. Absolutely. And we take great pride in being environmental stewards out here, and we respect what you're saying there. And we're very concerned about the groundwater and water contamination as well.

Q. Any other final thoughts?

A. No, sir.

Q. Thank you, Mr. Huling.

MR. RANKIN: Mr. Examiner, I have no further questions and no exhibits to submit, so I pass the witness.

CROSS-EXAMINATION

BY MR. PADILLA:

Q. Mr. Huling, do you know anything about the pressures in this area where Matador drilled the wells?

A. I have a map that I did not bring, but I will tell you that the pressure gradient map I have shows that that is higher pressure there than over in this Ocotillo and even the -- so yes, the pressure is higher there based on the data I have.

Q. Is there any difference between -- in the pressures between the north-south wells -- or two north-south wells at the bottom of the circle on our Exhibit 7 and the other wells in the circle?

A. I do not have that map in front of me. The original pressure map, sir, it was prepared. So I really can't delineate that close, but I can certainly tell you in that area where -- moving over where those Matador wells are, there is higher pressure. It drops as you move to the west. But I can't speak specifically to that area. I do not have that committed to memory.

Q. Let me show you this exhibit, Mr. Huling.

A. Okay.

Q. This is Premier's Exhibit Number 7.

A. Yes, sir.

Q. Would you say that the pressures from all of

those wells would be about the same?

A. Will you show me what all wells you're talking about, please?

Q. The wells within the red circle.

A. I would -- again, I do not have my pressure map. I would just say, in general, the pressure is higher moving this direction (indicating) and lower moving this direction (indicating).

Q. When you say "this direction," is that --

A. Westerly. As you move westerly, there is less pressure, and, you know, the volume of gas -- you know, the recovery and the volume in place is higher with higher pressure, PV equals nRT. The higher the pressure, the more volume. So you have more pressure over here (indicating). You have more volume recovery over here than here (indicating). There is a general trend of higher pressure when you go from east to west.

EXAMINER BROOKS: I'm sorry. I'm getting mixed up by your gestures. You say when you go from east to west, and this looks like from west to east.

THE WITNESS: Let me turn it this way. Let me turn it this way. When we go from the area that Mr. Jones had on his exhibit, where the Matador wells are, calling that east, moving over west to the target area, I'm saying, in general, there is higher pressure

this direction, in the east, lower going this direction (indicating).

EXAMINER BROOKS: Higher to the east --

EXAMINER McMILLAN: Matador has higher pressure.

THE WITNESS: Let me correctly say it again: Higher pressure to the east, lower pressure to the west.

(The court reporter requested the parties speak one at a time.)

EXAMINER BROOKS: Well, engineers are not allowed to ask questions anyway. That's a privilege of lawyers, unless they're appointed hearing examiners. Even geologists can't ask questions in that situation.

Go ahead.

Q. (BY MR. PADILLA) Mr. Huling, looking at the wells strictly within the circle that are east-west wells and then you look immediately to the south, there are two north-south wells.

A. Okay. I see those. Yes, sir.

Q. Wouldn't the pressure, based on your testimony, be about the same for everything?

A. To the best of my recollection, it could be pretty similar, but, again, I do not have that map in front of me. But yes.

Q. But you still have a decline curve that's sharper --

A. Decline curve --

Q. -- for the two wells?

A. I'm sorry. I don't understand your question.

Q. Well, as I understand Mr. Dan Jones' testimony, the two wells at the bottom of that circle that are north-south decline much faster. Is there an explanation that you may have why that may have happened?

A. I have not looked at that area in enough detail to opine or offer an opinion on that at this point.

Q. Okay.

MR. PADILLA: That's all I have.

EXAMINER McMILLAN: Thank you.

EXAMINER BROOKS: Nothing.

EXAMINER DAWSON: I have nothing.

EXAMINER McMILLAN: I have no questions.

MR. RANKIN: No further questions.

EXAMINER McMILLAN: And then you'll submit final statements in writing?

EXAMINER BROOKS: In writing, yes, as well as any -- any observations that you want to make on the motion to dismiss, a response thereto that are not already before us.

EXAMINER McMILLAN: Excuse me. Did you get that, Ernie?

MR. PADILLA: I'm sorry.

EXAMINER BROOKS: I said yeah, we're going to invite both parties to make closing remarks, if they wish, in writing, including any authorities you want to call our attention to in regard to the motion to dismiss or a response thereto.

MR. PADILLA: I saw some Oklahoma cases that I wanted to expand on.

EXAMINER BROOKS: I would be -- I would welcome any cases that would help shed light on the issue.

MR. PADILLA: Okay. Thank you. By when shall we submit that?

EXAMINER BROOKS: Pardon me?

MR. PADILLA: By when?

EXAMINER BROOKS: By when? Oh, well, I'm not in any hurry (laughter). You're probably in more of a hurry than me.

MR. PADILLA: Not really. I'm just trying to figure out --

EXAMINER BROOKS: Well, I mean --

MR. PADILLA: I have an appeal, a docketing statement.

EXAMINER BROOKS: I think that it can be accepted that Chisholm is not going to be able to start this well in two weeks, unless they want to go ahead and drill it without an order, which they're allowed to do under the Oil and Gas Act, but that's up to them. I don't really think we can get an order out in two weeks even if we hurry.

EXAMINER McMILLAN: Okay. So could we set it for the 17th?

MR. RANKIN: 17? Submit the final statements?

EXAMINER McMILLAN: Yeah. How does that work?

MR. RANKIN: That's fine. That's the date of our hearing.

EXAMINER McMILLAN: That's a bad choice.

MR. PADILLA: Yeah, it is because I think we have hearings on the 17th.

EXAMINER McMILLAN: Yeah. I was thinking that.

MR. RANKIN: Friday, the 11th, or sooner? Is that too soon, the following Monday, the 21st?

MR. PADILLA: Yeah.

EXAMINER BROOKS: Fine with me. I don't have any preferences because I don't have to work again

until you submit them, so I don't care.

MR. RANKIN: We'll take the 21st.

EXAMINER McMILLAN: Okay. So final statements, the 21st.

MR. RANKIN: Thank you, gentlemen. Thank you, Mary.

(Case Numbers 16115 and 16116 conclude, 7:15 p.m.)

STATE OF NEW MEXICO

COUNTY OF BERNALILLO

CERTIFICATE OF COURT REPORTER

I, MARY C. HANKINS, Certified Court Reporter, New Mexico Certified Court Reporter No. 20, and Registered Professional Reporter, do hereby certify that I reported the foregoing proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings that were reduced to printed form by me to the best of my ability.

I FURTHER CERTIFY that the Reporter's Record of the proceedings truly and accurately reflects the exhibits, if any, offered by the respective parties.

I FURTHER CERTIFY that I am neither employed by nor related to any of the parties or attorneys in this case and that I have no interest in the final disposition of this case.

DATED THIS 9th day of June 2018.

MARY C. HANKINS, CCR, RPR
Certified Court Reporter
New Mexico CCR No. 20
Date of CCR Expiration: 12/31/2018
Paul Baca Professional Court Reporters