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 CIMAREX ENERGY COMPANY FOR A NON-STANDARD OIL SPACING AND PRORATION UNIT AND COMPULSORY POOLING, CHAVES COUNTY, NEW MEXICO — CASE NO. 14507

APPLICATION OF CIMAREX ENERGY COMPANY FOR A NON-STANDARD OIL SPACING AND PRORATION UNIT AND COMPULSORY POOLING, CHAVES COUNTY, NEW MEXICO — CASE NO. 14508

APPLICATION OF COG OPERATING, LLC, FOR DESIGNATION OF A NON-STANDARD SPACING UNIT AND FOR COMPULSORY POOLING, CHAVES COUNTY, NEW MEXICO — CASE NO. 14500

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: WILLIAM V. JONES, Technical Examiner
MARK E. FESMIRE, Legal Examiner

July 22, 2010

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, WILLIAM V. JONES, Technical Examiner, and MARK E. FESMIRE, Legal Examiner, on Thursday, July 22, 2010, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South St. Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: Jacqueline R. Lujan, CCR #91
Paul Baca Professional Court Reporters
500 Fourth Street, N.W., Suite 105

A P P E A R A N C E S

FOR COG OPERATING, LLC:

J. SCOTT HALL, ESQ.
MONTGOMERY & ANDREWS
325 Paseo de Peralta
Santa Fe, New Mexico 87501
(505)982-3873

FOR CHESAPEAKE ENERGY CORPORATION:

OCEAN MUNDS-DRY, ESQ.
HOLLAND & HART, LLP
110 North Guadalupe, Suite 1
Santa Fe, New Mexico 87501
(505)988-4421

FOR CIMAREX ENERGY CO.:

JAMES BRUCE, ATTORNEY AT LAW
P.O. BOX 1056
Santa Fe, New Mexico 87504
(505)982-2043

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EXAMINER JONES: Let's go back on the record this afternoon. We have three cases left on the docket. Let's call three cases and commingle the cases. Let's call Case Number 14507, application of Cimarex Energy Company for a non-standard oil spacing and proration unit and compulsory pooling, Chaves County, New Mexico.

Let me call all three of them. Let's call Case 14508, application of Cimarex Energy Company for a non-standard oil spacing and proration unit and compulsory pooling, Chaves County, New Mexico; and Case 14500, application of COG Operating, LLC, for designation of a non-standard spacing unit and for compulsory pooling, Chaves County, New Mexico.

Call for appearances.

MR. HALL: Mr. Examiner, Scott Hall, Montgomery & Andrews, Santa Fe, appearing on behalf of COG Operating, LLC, and we have three witnesses this afternoon.

MS. MUNDS-DRY: Good afternoon, Mr. Examiners. Ocean Munds-Dry, with the law firm of Holland & Hart, LLP, here representing Chesapeake Operating, LLC, this afternoon. We have two witnesses.

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, representing Cimarex. I have three witnesses.

EXAMINER JONES: Will all eight witnesses please stand and state your names for the record, please.

MR. TRESNER: Hayden Tresner.

MR. LAUTENSCHLEGER: Jason Lautenschleger.

MR. WORTHINGTON: Ralph Worthington.

MR. ZERKLE: Justin Zerkle.

MR. MARTIN: Robert Martin.

MS. SPRADLIN: Jan Spradlin.

MS. SLATON: Barbara Slaton.

MR. GAWLOSKI: Ted Gawloski.

(Eight witnesses were sworn.)

EXAMINER JONES: We've got three cases, and we're combining those cases. Maybe we'll start with Attorney Scott Hall. Do you have a synopsis of what you're going to --

EXAMINER FESMIRE: Jim, do you have any objection to comingling?

MR. BRUCE: No.

MR. HALL: Mr. Examiners, this case, we think, is fairly simple, two competing compulsory pooling cases. Cimarex has filed applications to establish four non-standard spacing and proration units consisting of four contiguous 40-acre tracts for four wells, each in a stand-up configuration.

COG, in their case, 14500, is proposing lay-down configuration for their well consistsing of the south half/south half of Section 3, Township 15 South, 31 East.

The applications for a permit to drill, the pooling applications, are in obvious conflict. We don't believe that the pooling issues themselves are necessarily complex, but there is a dispute between the parties about the proper development of Section 3. So granting one party's application necessarily entails denying the others.

There are some notice issues among the parties we will apprise you of through the course of the hearing, but we thought it would be appropriate to present to you primarily the geologic, the fundamentals of the compulsory pooling applications, and then we will ask that the record be held open for an additional period so that the parties may publish proper notice and send additional well proposals to additional unjoined parties whose identities were only recently discovered.

EXAMINER FESMIRE: Mr. Bruce, would you like to give an opening statement now?

MR. BRUCE: Just very briefly. Cimarex does have four well proposals in this section, but we're only here today for two of them. I think Scott said

four. I think the only company that has an APD is COG. They filed quite some time ago for an APD, and, therefore, pursuant to Division policy, Cimarex could not obtain APDs. They have staked their wells, but they have not filed for APDs.

And I agree with Scott that there needs to be a continuance of this matter, although we think that's minor, because the parties who will be drilling the well are all here today.

And, yeah, there will be -- we think this isn't -- we also believe this is not too complicated. We will present geology and engineering, as well as land testimony, and we'll be -- I think we would like to be fairly brief, I know, in our presentation and continue the case. I don't think there will be need for additional witnesses coming in at some point in the future. We think everything can be handled by affidavit subsequent to this.

EXAMINER FESMIRE: Ms. Munds-Dry, since you don't have an application, what's your position in this case?

MS. MUNDS-DRY: Why are we here?

EXAMINER FESMIRE: That's the question I'm trying to ask.

MS. MUNDS-DRY: Chesapeake is here because

Cimarex is seeking to pool Chesapeake in their Boxer 3 Fee Number 3 well. Chesapeake opposes that application. In fact, they have already joined in the well proposed by COG. So we are here to not only support COG's application, but oppose to Cimarex's application.

EXAMINER FESMIRE: So you're basically allying with Mr. Hall's client?

MS. MUNDS-DRY: Yes, sir.

EXAMINER FESMIRE: What we'll do is go ahead and let Mr. Hall present his case, let you present your additional case, and let Mr. Bruce present his case, and then give you all a break.

MR. HALL: If I may approach and distribute exhibits? We'll ask Ms. Spradlin to come to the stand.

JAN SPRADLIN

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HALL:

Q. For the record, please state your name.

A. Jan Spradlin.

Q. Ms. Spradlin, where do you live and by whom are you employed?

A. Midland, Texas. I'm employed by COG Operating, LLC.

Q. What do you do for them?
A. I'm a senior landman.
Q. You have previously testified before the Division and the Commission and had your credentials as a petroleum landman established as a matter of record; is that correct?
A. That's correct.
Q. Are you familiar with the applications filed in these cases and the lands that are the subject of the applications?
A. Yes.
MR. HALL: Mr. Examiner, we would offer Ms. Spradlin as an expert petroleum landman.
EXAMINER JONES: So qualified.
Q. (By Mr. Hall) If you would, please, give the Hearing Examiner a brief synopsis of what COG is proposing by its application.
A. We're seeking an order consolidating four 40-acre spacing units into a south half/south half proration unit designating those consolidated units as a 160 non-standard unit to pool in the lower Abo/Wolfcamp Formation.
Q. Let's look at Exhibit 1. What does that show us?
A. That is our permit.

Q. And for the record, let's state the lands you're seeking to designate as a non-standard unit.

A. Yes, it is.

Q. Could you state those lands, please?

A. The south half of the south half of Section 3, 15 South, 31 East.

Q. Is Exhibit 1 Concho's APD for the well?

A. Yes.

Q. If we look at the second and third pages of Exhibit 1, does it show us the surface and bottomhole locations?

A. Yes.

Q. Could you indicate those for the record?

A. We have standard locations 330, 660 for bottomhole location, and the surface is 430, 660. Our project area is within the production rules for producing out of the lower Wolfcamp.

Q. And is this a Wildcat Wolfcamp oil pool for this area?

A. Yeah, it is.

Q. In each of the 40-acre tracts you are designating as your non-standard unit for your drilling project, does COG have the right to drill in each of those tracts?

A. Yes, we do.

Q. Let's look at Exhibit 2, please. Would you tell us what that shows?

A. It indicates the entirety of the south half of Section 3, 15 South, 31 East, in the southwest quarter. COG and Chesapeake own 100 percent of that tract, 50-50 each. They agreed to join with us in drilling of the locations. In the west half of the southeast quarter, Chesapeake owns a 12-and-a-half percent, and Pure Energy, an unleased mineral interest, has joined us, agreed to join us, and signed an operating agreement for their interest under that tract.

EXAMINER FESMIRE: Could you say that again. Who?

THE WITNESS: You've got Thomas -- we have the right under contract for Chesapeake and Pure Energy for the west half of the southeast quarter. The other owners listed there are Thomas Jennings, Chisos, Blanco and First Roswell. And they were noticed, but they have not -- Chisos is joining Cimarex, and we have not heard from Blanco, First Roswell or Thomas Jennings.

EXAMINER FESMIRE: I'm a little confused here. Chesapeake has joined you in that half-quarter section?

THE WITNESS: Yes. In the west half of the southeast quarter, Chesapeake owns 12-and-a-half

percent interest.

EXAMINER FESMIRE: And they joined you there?

THE WITNESS: Yes. So has Pure Energy, who owns a quarter.

EXAMINER FESMIRE: Okay.

THE WITNESS: Then in the east half of the southeast, COG owns 29 -- basically, 29.44 interest from fee leases we have acquired. We have acquired by farmout OXY's interest, which is 31.8. And we have -- it came to light that New Mexico Boys and Girls Ranch Foundation was unleased, and we acquired a lease from them yesterday.

Q. (By Mr. Hall) For clarification, the ownership you're showing, everything highlighted in yellow is committed to Concho?

A. COG.

Q. And the ownership is also reflected for the entire south half there; correct?

A. Correct.

Q. Is ownership consistent with the south half/south half of the unit you're proposing?

A. Yes.

Q. Could you tell the Examiner, do you know how long COG held its interest in the south half/south half?

A. We acquired the lease from Heyco in July. I

think it was July of 2007.

Q. When, approximately, did COG begin its geologic evaluation of the acreage?

A. When we bought the acreage.

Q. Let's look at Exhibit 3. What does Exhibit 3 show us?

A. It gives you a timeline for the development and how we started this project after we acquired the Heyco acreage.

Q. Could you run through those for the record, please?

A. We did ownership reports from Continental Land.

Q. When was that?

A. May of 2007. Then we acquired the leases in July. In November of 2007, we received proposals from Chesapeake on the Pegasus Well, which was in the south half of Section 3. After that, we did have hearings on that. We came to agreements, and we both operate jointly in different areas within -- which is covered by a BLM lease.

We've continued to develop that area. We entered into the operating agreement in November of 2008. We submitted a permit for these particular wells. The south half/south half was submitted to the BLM in March

of 2009.

We had a surface -- this is a split estate. The southwest quarter is split estate. We have an agreement with the surface owner, but over this period of time, he has asked us to amend it for -- increase what we were paying him over the period. So we entered in, and it was finalized -- the second amendment to the notice of memorandum and what we would be paying him -- in January of 2010.

In February, the APD was approved by the BLM and, five days later, the OCD. And we've been drilling wells. We've drilled -- I believe Chesapeake has drilled several wells. We're developing what we call the Taurus area, the Hercules, Andromeda. Wells have been drilled out there. Most of them have been very good. We've been successful, including Cimarex's wells. We noticed that on April 4th, Marshall P&A'd the first well in this play.

Q. April 4th of this year?

A. Right.

Q. Where was that as well?

A. That well is in Section 35, 14 South, 30 East.

Q. Is that located immediately to the north of Section 3?

A. It's a little northeast. I have to look at my map.

EXAMINER FESMIRE: Why did they plug that well? Was it depleted?

THE WITNESS: It was the only -- I'll let the geologist and engineers talk to you, but it was dry.

Q. (By Mr. Hall) After that well was plugged, what happened next?

A. I received, on April 9th, four Boxer Well proposals from Cimarex.

Q. Explain to the Hearing Examiner, when you say, "the four Boxer Wells," where are they located? What's their unit configuration?

A. They were going from the north to the south.

Q. They're all in Section 3?

A. They're all in Section 3. And we received four, and we didn't own any acreage in one of the -- the west half of the east half. We have no working interest in that particular tract. Their proposal included an AFE and that an operating agreement would be sent under separate cover, which we didn't receive until June.

We, in turn, sent out a well proposal on the south half of the south half. And the tracking sheet on those notices and who was noticed is an attachment to this exhibit.

We then contacted the Hinkle Law Firm in Roswell to prepare a title opinion. In May, the Hinkle

law firm conflicted out because both Cimarex and Concho were their clients. Hayden and I attempted to work out something, which was not approved by his management.

Q. For the record, who is Hayden?

A. Hayden Tresner is the landman for Cimarex.

So as a result, we both had to go get separate counsel, and that's when I contacted Jeff Bowman to prepare us a drilling title opinion. And on July 17th, I received a preliminary title report, indicating that there were multiple unleased mineral owners and discrepancy in working interest ownership, and have since contacted and gotten commitments from some of those people.

Q. Let me walk you back a little bit. How did COG go about determining the surface and bottomhole location for this well, the Boxer Well -- the Leo. I'm sorry.

A. How did we determine it? By geology.

Q. How did you locate the surface and bottomhole locations?

A. By the rules set out by the Commission, that we needed to be 430 off in our offset.

Q. Are both the surface and bottomhole locations orthodox locations?

A. Yes, they are, and our setbacks are, also,

within the project area.

Q. In the course of establishing the surface location, did you confer with the surface occupant, the rancher?

A. Yes, we did. Mr. Medlin was there. He approved our right-of-ways, the various ways in that we were going to be coming in and using the surface.

Q. Was there a site visit by a Concho landman with Mr. Medlin?

A. Noel Olivas is the landman that was handling our surface use agreements now.

Q. And was it pursuant to that process whereby you conferred with the surface owner that led to the BLM's approval of your APD?

A. That's correct. They would not approve it until Mr. Medlin had signed off on everything.

Q. Let me ask you, is the east/west orientation that COG is proposing for its Leo 3 well consistent with the established prevailing development pattern in this area?

A. Yes, it is.

Q. Look back to Exhibit 2, just briefly. Can you tell the Hearing Examiner what is COG's working interest control in the entire non-standard unit 160 acres?

A. We have 127 acres out of the 160 acres in our

control.

Q. Roughly, 80 percent?

A. Yes.

Q. Are you asking the Division to pool the unjoined working interest owners and mineral interest owners?

A. Yes.

Q. And there are still some remaining unleased mineral interest owners?

A. There are. And unnotified mineral interest owners.

Q. Is COG seeking the imposition of a 200 percent risk penalty against the unjoined interests?

A. Yes.

Q. And COG is asking to be designated operator of the Leo well?

A. Yes.

Q. In your opinion, has COG made a good-faith effort to negotiate and obtain the voluntary participation from the unleased mineral interest owners or the working interest owners that you know of?

A. Yes.

Q. Will COG require additional time to make well proposals or obtain leases from the interest owners whose identity you recently discovered?

A. Yes.

Q. Let's turn to what we've marked as Exhibit 4. What I'd like you to do is identify that exhibit for us and give us a summary of all of your efforts to obtain voluntary participation of all the interest owners in your south half/south half unit.

A. Okay. We sent out those proposal letters asking people to either -- depending on what type of interest they have --

Q. Let me ask you this way: Is Exhibit 4 a compilation of your well proposal letters that went out to all of the interest owners you're seeking to pool?

A. Known at that particular time, based on the information. There is some parties that were not notified properly.

Q. I'm sorry. Go ahead and walk us through the history of that.

A. Of the --

Q. Of your well proposal.

A. We always send Fed Ex. We hand-delivered to Cimarex because they're in town. And it gives you a choice of joining. We tell where our well is going to be, the location. We provide an AFE, and we also furnish, at the time we send the proposals, an executeable operating agreement, and ask people to sell

to us, join us, you know, give us a lease.

Some of the letters are a little different, depending whether it's a mineral interest or if people have acquired leases from other parties.

Q. If we walk through the contents of Exhibit 4, does it consist of an April 22, 2010, well proposal letter sent to Cimarex?

A. Yes.

Q. Underneath that, is there a well proposal of that same day that went to Chisos Limited?

A. Correct. And one to the Blanco Company, which was returned, and we Fed Ex'ed it back out again. They didn't have their current address on the state site. We sent one to Thomas Jennings. We sent one to First Roswell Company.

Q. Were you successful in obtaining the commitment of those interests to your well proposal?

A. Unless it went to Chesapeake, but I don't -- yes. Pure Energy has joined, and Chesapeake joined in the drilling of the well.

Q. So we're clear, all the interest owners who received the letters that comprise Exhibit 4 did not elect to participate in the well?

A. I never did hear back from them.

Q. And let's look at Exhibit 5 quickly. What is

Exhibit 5?

A. Our AFE for the Leo 3 Fed Com 1.

Q. Is this the AFE that went out with each of your well proposals?

A. Yes, it is.

Q. And turn to Exhibit 6. What is that?

A. That's the front page of our operating agreement showing what acreage will be covered under this OA and also what well is being proposed on page 5.

Q. And so is Exhibit 6 an excerpt from the operating agreement you sent with your well proposals?

A. Yes, it is.

Q. Now, let's look at Exhibit 7. Would you identify that, please?

A. This is a preliminary title report from my attorney, Jeff Bowman, which was sent Saturday evening, late -- I didn't receive it until Monday -- setting forth the title in the south half of Section 3.

Within this title there are several parties that were totally unknown to us through even our take-offs that we had done. And also some of the ownership was very different from the standpoint it names OXY as an owner. It also had unleased mineral owners that we were not -- had not seen before.

Q. Look at page 2 of that exhibit. Does that

summarize the leasehold ownership in the southeast quarter of Section 3?

A. Yes, as far as I know. And I didn't know Penroc. I had never seen anything on Penroc in this area.

Q. And you received this report when?

A. It was sent Saturday evening, and I received it on Monday.

Q. All right. And if we look at subparagraph B(1)(a), it reflects an interest for OXY NM LP?

A. Yes.

Q. Do we know where those interests came from?

A. From the Bold merger, a name change that OXY acquired.

Q. And the last entry under that category B(1)(a) shows unleased --

A. Unleased, but 19 percent of that, which is the New Mexico Boys Ranch, I have under lease now.

Q. When did you get that lease?

A. It was effective July 21st, and I have a commitment from OXY for a farmout.

Q. And can you tell us who the remaining unleased mineral interest owners --

A. The person's name is A.D. Jones and Patricia A. Jones. I found out through my attorney that they live

in Roswell -- which they will begin contacting.

Q. Will it be necessary to send them a well proposal letter?

A. Yes.

Q. In your opinion, Ms. Spradlin, has COG acted diligently to develop the reserves that it owns in the south half/south half of Section 3?

A. Yes, sir.

Q. And has Cimarex proposed a well unit that is in conflict with yours?

A. Correct.

Q. In your opinion, would the granting of COG's application and the denial of the two Cimarex applications be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, I believe so, in my opinion.

Q. Were Exhibits 1 through 7 prepared by you or at your direction?

A. Yes.

MR. HALL: At this point, Mr. Examiner, we move the admission of Exhibits 1 through 7, and I pass the witness.

EXAMINER JONES: Any objection?

MS. MUNDS-DRY: No.

MR. BRUCE: No objection.

EXAMINER JONES: Exhibits 1 through 7 will be admitted.

(COG Exhibits 1 through 7 were admitted.)

EXAMINER FESMIRE: Ms. Munds-Dry, do you have any questions of this witness?

MS. MUNDS-DRY: I don't have any questions of Ms. Spradlin.

EXAMINER FESMIRE: Jim?

MR. BRUCE: Just a few.

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Ms. Spradlin, looking at your Exhibit 1, the APD, the few pages from the federal APD, I'm guessing there's about 50 additional pages?

A. Yes. It's just a portion of it.

Q. The surveyor certificate was September 9th, 2007. Is this the first APD that was filed on this acreage?

A. Yes. It was filed in -- it was submitted March 26th, but we did all our surveying back in 2007, when we were doing the Chesapeake -- all in that. But the permit was not actually sent for permitting, but we did a lot of work with the surface owner. Because Mr. Medlin owns in that entire area. It is split estate.

His Section 3 was in our original surface use agreement, so we did pick locations.

But I'm going by that the permit was not sent in until March, when it was submitted. I couldn't tell you if there was another one or not.

Q. I just want to be clear. You sent to the Blanco Company. Are you telling me that the one sent to Ruidoso came back?

A. There was one that was sent back.

Q. Because it's currently in Albuquerque now; right?

A. I would have to -- where is that tracking sheet? Yes. It came back, and then it went to Albuquerque.

Q. And your JOA proposes your particular well in the south half/south half, but this JOA proposed to Cimarex and the others covers the entire south half; correct?

A. Right. Because the ownership was common between the two wells, I tried to do operating agreements where you're not having to come back on a well-by-well basis if the ownership is common.

Q. Looking at your Exhibit 7, I wasn't quite clear on who you said COG still needs to give notice to.

A. We have not given notice to Merch. Penroc, we

did not notify. We did not notify the unleased owner, the A.D. Jones, by virtue of calling OXY and getting a commitment. And, also, the unleased interest with New Mexico Boys Ranch, those people don't -- I have leases with them.

Q. Title in this fee land in Southeast New Mexico is getting increasingly difficult, isn't it?

A. Yes.

Q. So you have to do two parties at this point?

A. Yes, I do.

MR. BRUCE: That's all I have, Mr. Examiner.

MR. HALL: Nothing further.

EXAMINER JONES: Can you restate your relationship to Chesapeake in this area? Do you have a JOA with them in this area for developing these horizontal wells?

THE WITNESS: We have a joint operating agreement that covers the majority of this specific lease in this area. The south half of Section 3 was not included in that, and we entered into a separate OA for just the south half.

EXAMINER JONES: That's all.

EXAMINER FESMIRE: Mr. Hall?

MR. HALL: Nothing further.

EXAMINER FESMIRE: Mr. Bruce?

MR. BRUCE: Nothing.

MR. HALL: Thank you, Ms. Spradlin.

At this time we would call Ted Gawloski to the stand.

EXAMINER FESMIRE: Mr. Gawloski, you've been previously sworn in this case; correct?

MR. GAWLOSKI: Yes, sir.

EXAMINER FESMIRE: Take the witness stand.

TED GAWLOSKI

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HALL:

Q. For the record, please state your name.

A. Ted Gawloski.

Q. And where do you reside, and by whom are you employed?

A. I live in Midland, Texas, and I work for COG or Concho Resources. If you hear both of them, they're the same thing.

Q. How are you employed?

A. I'm a senior geologist in the Exploration Group.

Q. You testified before the Division and the Commission a number of times and had your credentials

accepted as a matter of record as an expert petroleum geologist?

A. Yes, sir.

Q. Are you familiar with the lands in the applications that are the subject of this hearing today?

A. Yes, sir.

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

EXAMINER JONES: Any objection?

MS. MUNDS-DRY: No objection.

MR. BRUCE: No.

EXAMINER JONES: Mr. Gawloski is qualified as an expert petroleum geologist.

Q. (By Mr. Hall) Mr. Gawloski, you have some experience in the lower Abo/Wolfcamp play that we're talking about here today?

A. Yes, sir.

Q. Why don't you give us an overview of your experience?

A. I've been working the play ever since the beginning of -- over two years, exclusively. And I've been the geologist responsible for the recommendation of 17 wells, operated wells, and another 12 non-operated wells. And we had three wells approved to drill this year.

Q. Have you conducted a geologic investigation to determine whether each of the 40-acre tracts that Concho proposes to dedicate to its lay-down non-standard unit are each prospective for production?

A. Yes.

Q. What did you conclude?

A. The COG locations will effectively drain the reservoir with two wells, as opposed to four wells that Cimarex has proposed.

Q. And are each of the 40-acre tracts in the south half/south half of Section 3 prospective for production?

A. Yes.

Q. Let's look at some of the exhibits you prepared to discuss today. Let's look at Exhibit 9. If you would identify that.

A. Exhibit 9, basically, it's a tally sheet that I keep of the play. There's some dynamics to it. Some people may have more wells or less wells. But I have 319 total horizontal wells permitted, drilled or completed so far. 77 have been completed, approximately. 308 of these wells are oriented east to west or west to east, and 11 are oriented north/south or south/north. About 96-and-a-half percent of the wells are oriented east/west or west/east.

Q. I misidentified an exhibit for you. Were you referring to Exhibit 8?

A. This is Exhibit 8 here. This is the exhibit I was referring to here.

Q. My mistake. Let's turn to Exhibit 9.

EXAMINER FESMIRE: In the play, there are only, basically, two sets of north/south wells in Section 18 and Section 3?

THE WITNESS: This displays for a certain township. There's many more locations besides this. This township has 95 locations, and the remaining are in different townships and ranges.

This exhibit here is essentially the play map of the Township 15 South, 31 East, where the Leo Federal and the Boxer wells are located. They're up in Section 3. If you refer to the legend down here, the green wells are Cimarex permitted locations or stake locations, and some of them haven't been permitted.

Cimarex completed wells are shown in gray. The other completed horizontal wells are shown in black. COG permitted wells are shown in red that haven't been drilled. Then the black wells, again, are already completed wells. The blue wells are wells staked by other companies that have not been completed yet.

To date, I have 95 locations in the township,

87 oriented in the east to west or west to east. Cimarex had, in my count, 61 locations, with 53 oriented east to west or west to east, and eight oriented north/south, the four Boxer wells and the four wells in Section 18.

EXAMINER FESMIRE: As a geologist, do you have a theory as to why the east/west oriented wells have been more successful than the north/south?

THE WITNESS: Basically, the play started that way when we drilled our initial well a couple of years ago. And subsequent to that, most -- almost every well has been staked in that direction. There's been some studies done, but they had conflicting results as to orientation.

So most of the operators just kept it going the way it was, because there's been a great track record in this play. Basically, there's only one well drilled that -- a lateral that has been drilled that's actually been plugged.

There's been a couple others that some pilot holes have been abandoned, but only one well -- this Marshall Winston well up here in Section 35 is the only one I'm aware of that was drilled as a lateral and actually plugged.

Q. (By Mr. Hall) Mr. Gawloski, let me ask you, is Cimarex's proposal to develop Section 3 with stand-up

units advisable in your opinion?

A. No, it's not.

Q. Why not?

A. Well, I can explain with the next exhibit here.

Q. All right. Turn to Exhibit 10. Would you identify that and explain that to us?

A. This is an isopach of a dolomite pay zone in the lower Abo pay interval. Basically, it shows a thick that runs kind of diagonally and across Sections 17 and 18, upwards, towards the southeast quarter of Section 3, where the Leo Federal locations are, and back down to the southwest there.

It also shows a pinch-out line, basically, where that blue is shown on the contour map of the pinch-out of the zone. And this is based upon information on this new well that we've been referring to, this Marshall & Winston well, which was abandoned at a TD of 12,267. And I'll have further displays that go into detail on that.

But, basically, they only had a three-foot drilling break in the pilot hole and the mud log on it. That's where I got the number. They ran an electric log, but it was only an induction log, so I used the mud log for the number, and I have that included here.

But, essentially, that is the main control point for the north to show, as you go from that direction, that you're drastically thinning. The Cimarex well in Section 2, the Wasp state well, has 76 feet of pay, and you go to three feet right there.

And to show that that can happen, if you look over in Section 8, you'll see these Marshall & Winston wells, the Medlins, it goes from 42 feet to 14 in one proration unit right there. They did make a well like that, because they took the lateral and got into the pay. You can see how they went back to the west. So the abrupt thinning is definitely documented in here.

So we feel -- you know, looking at this isopach, it's much more feet of pay in the south half of Section 3, and it can certainly be better developed by two east to west or west to east wells on here.

Q. Based on your geologic mapping, including Exhibit 10, do you have an opinion whether each of the 40-acre tracts that comprise Cimarex's proposed stand-up well units are prospective for production? I'm talking about the Cimarex tracts now.

A. Yeah. I believe that the north half would be extremely risky drilling for this Abo pay zone.

Q. Do you have an opinion whether a spacing and proration unit comprised of the south half/south half in

a lay-down configuration is better situated to produce the reserves underlying Section 3?

A. Very much so, yes.

Q. Would you refer to Exhibits 11 and 12 and identify those for us? And if you would also refer those locations back on Exhibit 10.

A. Okay. The next exhibit is part of the mud log of the Marshall & Winston Caprock 35 State well. It's located in Section 35 in the north end of the map, 14 South, 31 East, just to the north and east of Section 3.

EXAMINER FESMIRE: This is the plugged well; right?

THE WITNESS: Yes. This is the pilot hole mud log that they had. And, basically, there's three feet of drilling break, and I think I was generous in giving it three feet.

They ran seven-inch casing and drilled their lateral. They drilled about 3,162 feet of lateral, and within the lateral there were only two intervals that total 180 feet that had a mud log show, so less than 6 percent of the entire lateral had a mud log show. Therefore, when they were drilling this, they got, basically, tired of drilling a bunch of hard rock and abandoned the well and plugged it. They were 902 feet

shy of their final TD, but they still drilled over 3,000 feet of lateral.

Q. (By Mr. Hall) Do you know what date that well was abandoned?

A. They TD'd the well on April 4th, and there is no official data released on this. But I'm pretty sure they would have plugged it the next day or two, because they had the rig out there, so April 5th or 6th, somewhere in there.

Q. Look at Exhibit --

A. The next exhibit is, basically, an example of a good mud log. It's one of the Cimarex wells down in Section 11, the Enterprise Number 1. It's 32 feet of drilling break in this mud log. It has really good shows in it. Actually, 89 percent of the lateral here had good shows in it, and it's a productive well, about 60,000 barrels in 14 months. That's an example of what a good well looks like and what you had up here in this Caprock State well.

Q. Mr. Gawloski, developing Section 3 with two lay-down units in the south half of the section, will allow us to avoid the drilling of unnecessary wells?

A. Yes.

Q. And as a result, will project economics be improved when you drill two wells versus four wells?

A. Absolutely.

Q. And in your opinion, will granting COG's application, approving of the lay-down unit configuration, be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes.

Q. Were Exhibits 8 through 12 prepared by you or at your direction?

A. Yes.

Q. Look at one more exhibit that we don't have marked. Let's call it 12A.

Do you need to take a break?

A. No. I'm fine.

This exhibit here essentially states what we just mentioned, that it's just, basically, a blowup of Section 3, just showing that our two Leo wells will effectively drain the lower Abo reservoir and prevent waste. The pay thickens to the south, and there's much more pay developed in the south, and two wells could effectively drain this reservoir.

MR. HALL: I misspoke. We've marked this as Exhibit 13.

Q. (By Mr. Hall) I'll ask you again, were Exhibits 8 through 13 prepared by you or at your

direction?

A. Yes, they were.

MR. HALL: We move the admission of Exhibits 8 through 13, and pass the witness.

MS. MUNDS-DRY: No objection.

MR. BRUCE: No objection.

EXAMINER JONES: Exhibits 8 through 13 will be admitted.

(COG Exhibits 8 through 13 were admitted.)

MS. MUNDS-DRY: No questions.

EXAMINER FESMIRE: Mr. Bruce?

MR. BRUCE: Really, just one question.

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Mr. Gawloski, you said that -- I think your final statement was that two wells would effectively drain the reservoir in this section. Including reserves in Section 3, in the north half of Section 3?

A. No. The two wells in the south half of Section 3.

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

EXAMINATION

BY EXAMINER JONES:

Q. I forgot to ask, is this a regular section, do you know? I should have asked Jan Spradlin.

A. Yes. I believe it is just a regular section.

Q. This Abo/Wolfcamp business, I notice you're calling it the Abo.

A. Right. Actually, in these displays I put "Abo/Wolfcamp." I believe Cimarex uses that terminology, as well, because the OCD -- different places, they call it the Wolfcamp, and another place, they'll call it Abo. So we put both names to it, to just identify it as the pay zone that we're looking at.

Q. You're showing the Wolfcamp top has got some limestone in it on these -- I'm sorry. This is the mud log shows. That's just a coincidence, I guess?

A. That's a mud logger's interpretation there. This is mostly dolomite he's showing on both of these mud logs. But there's lime mixed in, probably, a limey dolomite.

Q. So it's pretty clear where the Wolfcamp is?

A. Yes, it is. There's a distinct break in the top seal to this, where there's anhydritic dolomite. Then you come into either dolomite or limestone just right below that. And that pay is, basically, 150 feet below that.

Q. Below the top of the Abo?

A. No. It would be a lower marker in the Abo. It's a lithology -- distinct lithology difference, where

if you have a density neutron log, it will show anhydrite. The density will be reading minus 10, and then an abrupt change right below that, and that's where the pay is. That top is the seal for the reservoir.

Q. Does that anhydrite explain how you can keep your bit in it, below it?

A. It helps you steer it. If you get into that, you know you want to get away from that and move down.

Q. Do you lose many of those wells drilling them?

A. No, we haven't lost any. But I can tell you it's very difficult to stay in the pay. You have to watch it 24 hours.

Q. Watch it in the samples?

A. Steering the well, to keep it in the pay.

Q. With what aid do you do that, with gamma rays --

A. Yeah.

Q. -- or logging well drilling? Gamma ray?

A. Yes, sir, and a good mud logger.

Q. And a mud logger?

A. Yeah.

Q. That gamma ray, is it one joint back?

A. Yeah. I think it gets roughly 30, 40 feet, somewhere in there. I'm not exactly sure, but it's close.

Q. So you're a ways back from your bit when you see it?

A. Yeah. When you react to it, you're a little late, of course.

Q. How many feet a day do you drill in a horizontal section?

A. Depending upon your configuration, we use a rotary steerable assembly, and you can make a lot, up to from 70 feet an hour, even more than that sometimes. So they can drill fast, so you have to react quickly if you get out of the pay zone.

Q. So a foot a minute?

A. Yeah. It's not uncommon. If you have PDC bits in there, they can chew it up.

Q. So you see your samples -- mud loggers, are they pretty definitive samples?

A. Yeah. They get pretty small, but they get enough rock to where they can get good samples and good shows of gas, enough to know that you're in a pay zone or not.

Q. Do you guys always drill vertical wells and log them?

A. No, sir. Based upon -- like an area like this, you know, if we drilled in, like, the south half/south half of 15, we might drill a pilot hole. But

if we were drilling up where we have well control and that pilot hole is going to be next to another well, we will do it without it. It's tricky, but we can save a substantial amount of money, $200,000, something like that. So my engineers are always all over me. I prefer to have a pilot, because it gives me the control to feel comfortable when I drill the lateral.

Q. If you drill where you're proposing to drill here, do you need to drill a pilot hole?

A. It depends if I get the log on the Cimarex well. If I had that, then I'd be able to -- or have more of it, I guess, I'd be able to use it for the control I need because it's close enough where I can land it. We've done that enough to where we feel comfortable doing it.

Q. So if you drilled where Cimarex is proposing to drill, starting --

A. If I started way up there to the north?

Q. Would you have to drill a pilot hole?

A. Sure I would, because that may be out of the pay zone up there, up that far north. I don't even know if I'd find pay in that well.

Q. What control did you have to draw these structure maps?

A. It's an isopach map. It's a thickness map of

the pay, essentially.

Q. Okay.

A. I had the well in Section 2, and then, again, that Marshall & Winston Caprock well. When you see a red number by the wells is where I had control. So there's quite a bit of well control in here.

Q. To the south?

A. To the south. Then, basically, on strike to that, those wells in Section 8 I referred to, Medlin Wells and Marshall & Winston, you can see that company likes to play this pinch-out. When you do that, you get the risk of doing what they did up in 35. They were really close to missing it in that Medlin well in Section 8.

Q. You're basing a lot on this well in Section 35 to the north, that three feet?

A. Yes, sir. Like I said, it's the only well I'm aware of that was drilled in a lateral and was actually abandoned.

Q. Isn't it true if you did spud a well to the north half of Section 3, you would obtain more information that might help you to actually extend this reservoir out to the north? Is it possible?

A. If you wanted to drill that. I certainly wouldn't want to take that risk.

Q. So you're totally sure of your map here?

A. I feel very confident in the map, yes, sir.

Q. Okay.

A. I've been working this play since it started exclusively. Yeah, if that was me, I wouldn't be doing it.

EXAMINER JONES: I don't have any more questions.

EXAMINATION

BY EXAMINER FESMIRE:

Q. Geologically, what's happened here? What causes this state of development?

A. There's many factors. We've taken some core with some of this stuff, and it is an extremely complicated rock system here. The best reservoirs are on the dolomites. They have the best porosity and permeability. There's intermix of lime, little bits of chert and other things like that. But you really want to be in the dolomite, because you get better porosity and permeability.

Q. So secondary mineralization is sort of critical to that porosity development?

A. Yes. The dolomization process is probably the biggest. There is some dissolution of fossils and interparticle porosity in the limestones, but it's not

connected, so you get really low permeability numbers.

Q. Anybody given any thought to how the dolomite would respond to a water flood with the horizontal wells the way they're in there?

A. Yeah. There's been some thought to that, and, basically, that's about it, because there hasn't been enough -- I think you're going to have to wait until this whole area gets developed before you start seeing how that works. But if you were to do that, you'd certainly want the wells oriented in one direction. And certainly the prevailing direction in this whole play is on lay-down units, east to west or west to east.

Q. That's the point I was making. But on the other side, don't you think Cimarex's proposal for the marginal reserves up on the northern tip of Section 3, don't you think their proposal would probably better develop those reserves?

A. I don't think that there's very much reserves to be found up there, to be quite honest with you. If they wanted to do that, they can drill a south half to the north half on their own. And you'd have more pay in that than you would in any of the north/south.

Q. That's the point I'm making, that probably -- you know, oriented this way, that probably would be a marginal, if not a losing well. Whereas developed this

way, those reserves -- developed the way they propose, those reserves would probably be captured, don't you think?

A. With four wells, as opposed to two. That's what preventing waste is all about, I believe.

Q. Your argument is that the drilling four wells, while it might capture more oil, would not be as economically viable?

A. Correct.

Q. How would the ownership change -- well, you're the wrong one to ask.

A. Yeah

EXAMINER FESMIRE: Any more questions, Mr. Hall?

MR. HALL: Briefly.

REDIRECT EXAMINATION

BY MR. HALL:

Q. In response to a question from Mr. Fesmire, I understood you to say that there was nothing preventing Cimarex from drilling north to south. Is it more accurate to say there's nothing preventing them from drilling east to west lay-down units?

A. No.

MR. HALL: Nothing further.

EXAMINER FESMIRE: Ms. Munds-Dry?

MS. MUNDS-DRY: Nothing, no.

EXAMINER FESMIRE: Mr. Bruce?

MR. BRUCE: No, sir.

EXAMINER JONES: Okay.

MR. HALL: That concludes our examination of this witness.

We would call Barbara Slaton to the stand.

EXAMINER JONES: Can we take a break for about 10 minutes?

EXAMINER FESMIRE: Sure.

(A recess was taken.)

EXAMINER FESMIRE: The record should reflect that the Hearing Examiners have returned and that we've gone back on the record.

I believe, Mr. Hall, you had one more witness?

MR. HALL: Yes, sir. We call Barbara Slaton to the stand.

EXAMINER FESMIRE: Ms. Slaton, you've been previously sworn in this case?

MS. SLATON: Yes.

BARBARA SLATON

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HALL:

Q. For the record, please state your name.

A. Barbara Slaton.

Q. Ms. Slaton, where do you live, and by whom are you employed?

A. I live in Midland, Texas, and I'm employed by COG Operating, LLC.

Q. In what capacity?

A. Senior reservoir engineer.

Q. Have you previously testified before the Division or its examiners?

A. I have not.

Q. Why don't you give the Examiners a brief overview of your educational background and work experience.

A. I have a B.S. in chemical engineering from the University of Pittsburgh. I have 29 years' industry experience, primarily with Marathon Oil, Burlington Resources, Conoco Phillips, and now COG Operating.

Q. Are you familiar with the lands and the proposed wells that are the subject of the applications we're hearing today?

A. Yes, I am.

MR. HALL: At this point, Mr. Examiner, we'd offer Ms. Slaton as a qualified expert in petroleum engineering.

EXAMINER FESMIRE: Mr. Bruce, any

objection?

MR. BRUCE: No, sir.

EXAMINER FESMIRE: Ms. Slaton, are you a licensed petroleum engineer?

THE WITNESS: I am not.

EXAMINER FESMIRE: Notwithstanding that, I think her qualifications be accepted as an expert in petroleum engineering.

Q. (By Mr. Hall) Ms. Slaton, have you conducted an engineering evaluation to reach an opinion whether the reserves underlying Section 3 can be efficiently and economically recovered with two wells drilled on lay-down units in the south half/south half of the section?

A. Yes, I have.

Q. Tell us what your opinion is.

A. I believe that the most effective way to develop the reserves in Section 3 is by the drilling of two east/west lay-down units on 160-acre spacing.

Q. And do you have an opinion whether developing Section 3 with four stand-up unit wells would result in the drilling of unnecessary wells?

A. Yes, I believe so.

Q. And would waste result?

A. Yes, it would.

Q. From a petroleum engineering perspective, have

you compared the potential relative drainage areas of the stand-up non-standard units being proposed for Cimarex wells versus the lay-down units that COG is proposing?

A. Yes.

Q. Tell us about the results of your comparison. Let's look at Exhibit 14.

A. Exhibit 14 shows that the proposed development by COG Operating showing that two lay-down units would effectively cover all -- every -- all portions of that lateral is within effective, productive reservoir rock. So those two wells would fully develop what we believe to be productive reservoir rock in that section.

Q. And let's look at Exhibit 15. What does this show us?

A. This is what the proposed Boxer Federal wells would look like. If we honor the pinch-out, we do honor that pinch-out, I believe that those four wells would not be fully drilled within producing reservoir rock. And I've assigned some expected drainage areas to those. Moving from east to west, the first well would drain 90, then the next two wells would drain 100 acres, and the last well would drill 80 acres. So you compare the 320 acres drained by two wells versus four wells that it would take to drain 370 acres.

Q. Now, did you take your drainage areas for both

the lay-down and stand-up wells and apply an economic analysis to that?

A. Yes.

Q. And tell us about that. Let's look at Exhibit 16.

A. Yes. What I did for this was I just took a type-curve well that's sort of an average for this play, applied drainage area of 160 acres to the base well, and then reduced the recoverable reserves based on the percentage of acreage being drilled.

I ran cases, economic cases. I did it both at Cimarex's AFE costs and at Concho's because they are different. What you can see very clearly is the economics of 160-acre well with a 49.6 rate of return is very, very robust economics. But as you move down and decrease what you actually recover in those wells, your economic -- your rate of return is destroyed very quickly to the point where, in my opinion, it's not economic to drill those wells.

Q. Why don't you run through the rates of return for each of those perspective drainage areas.

A. 160-acre well at Cimarex's AFE cost is a 49.6 percent rate of return. The hundred-acre well would be a 12.2 percent. A 90-acre drainage area, 7.4 percent. And finally, the 80-acre drainage radius would get you

2.2 percent rate of return.

Q. Does Concho utilize a minimum rate of return economic criterian to decide whether it goes forward with the project?

A. Yes, we do. We have a bare-bones minimum, if you will, of 20 percent rate of return. But when we have competing projects for our money, we certainly prefer something closer to 40 percent rate of return for our money.

Q. And if we applied that economic criterian to the four well proposals of Cimarex, would all of them get drilled?

A. None of them would get drilled.

Q. Is Cimarex's proposal to establish stand-up drilling units consistent with the prevailing development pattern in the area?

A. No, it is not.

Q. Is this a concern?

A. It's very much a concern for us. We feel like it introduces an element of risk. When you move away from what's the standard analogous way of developing a reservoir, you greatly introduce risk into that equation, certainly magnified by the risk of the dryhole that's directly offsetting this acreage.

Q. Is Concho a publicly-traded company? Is that

right?

A. Yes, we are.

Q. Is inconsistent development a concern to a publicly-traded company?

A. Let's talk about it through the lens of how we deal with the SCC on our reserve bookings for horizontal wells. The SCC will only allow a proved offset if it is parallel to an existing producing well. When you go perpendicular, they no longer see that as a proved reserve. They downgrade your reservoir category. And they do that because that's how they quantify risk in the SCC world, is based on your reserve category.

So by drilling off the analogous way of doing things, where you're not parallel to the producing well, you're not going to be able to call that offset well a proved location. Because we're a publicly-traded company, our value is tied into our proved reserves that we're able to book. So we would see that as definitely a destruction in value.

EXAMINER FESMIRE: That's only if you hold that in inventory as an undeveloped location; right? The proposal here is to drill it, is it not?

THE WITNESS: Well, once you drill it, certainly you can. As long as it's on your books, you definitely prefer a proved reserve on your book as

opposed to a non-proved.

Q. (By Mr. Hall) What are the relative impacts to the surface when you compare developing Section 3 with two lay-down wells versus four stand-up?

A. We believe that it would have much more -- or less impact on the surface area, the footprint, if you will. We can develop the same reserves with two pads for drilling location. And because there's common ownership in the south half of that section, we would only need to build one tank battery. So that reduces the number of flow lines, roads, things like that. The two wells go to one common battery under the east/west development.

It's my understanding that when you drill the four wells, not only will you have four pads of footprint, but will be multiple batteries because of some ownership issues. So you'll probably have twice the impact, if not more, on the surface with the four-well multibattery completion, as opposed to our two-well, single battery development.

Q. Let's refer back to Exhibit 5. Could you review those dryhole and completed well costs for the Hearing Examiner shown in Exhibit 5?

A. Yes. This is for Leo 3 Number 1. The dryhole cost is $2.1 million, and the completed cost is $4.5 million.

Q. And are these costs in line with what other operators are charging in the area?

A. Yes, they are.

Q. Has COG made an estimate of the overhead and administrative costs while drilling and producing the well?

A. Yes. The overhead administrative cost while drilling are $6,500 a month, and while producing, $650 a month.

Q. And are those overhead charges in line with what's being charged in the area by other operators?

A. Yes.

Q. Are you recommending that those producing and drilling overhead rates be incorporated into the Division's order from this hearing?

A. Yes.

Q. Are you asking the Division to enter an order that provides for adjustment to those rates in accordance with the then current COPUS bulletin?

A. Yes.

Q. If you look back at some of the area activity maps or even the isopach map, do you see any impediment to Cimarex's geology, notwithstanding to their drilling lay-down unit wells in the north half of Section 3?

A. No.

Q. Your Exhibit 16 reflects the AFE costs for both Cimarex and COG. If you want to refer back to those numbers, they are somewhat different, are they not?

A. Yes, they are.

Q. Can you compare those rates for the --

A. Yes, I think I can. When you lay the AFEs side by side, you see a lot of minor differences. Probably the significant major differences in AFE costs are in the rotary steerable equipment that we use, that Mr. Gawloski referred to earlier, which greatly helps us steer and reduce our time in drilling, but there's a cost for that to use those tools.

We also put higher dollars in for completion costs than Cimarex does. And at the bottom line, they only put a 5 percent contingency on their AFE versus a 10 percent that COG uses. So those are the significant differences in the 3.8 versus 4.5 million AFE cost.

Q. In your view, those AFEs, do they compare favorably?

A. Yes, they do.

Q. Ms. Slaton, were Exhibits 14, 15, and 16 prepared by you or at your direction?

A. Yes.

MR. HALL: We move admission of Exhibits 14, 15, and 16. And that concludes our direct of the

witness.

MS. MUNDS-DRY: No objection.

MR. BRUCE: No objection.

EXAMINER FESMIRE: Exhibits 14, 15, and 16 will be admitted.

Ms. Munds-Dry, do you have questions of this witnes?

(COG Exhibits 14, 15, and 16 were admitted.)

MS. MUNDS-DRY: No, sir.

EXAMINER FESMIRE: Mr. Bruce?

MR. BRUCE: Just a couple.

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Ms. Slaton, you know, your Exhibit 15, this is based on what you call effective pinch-out. If this line is further north, then this chart is incorrect?

A. If it's further south, it's also incorrect.

Q. The reason I ask that is because your effective pinch-out line seems a lot further -- moves a lot further south than Mr. Gawloski's pinch-out.

A. There needs to be a minimum amount of reservoir to make a productive well. So three feet is not going to do it. You need probably 10, 15, 20 feet to be an effective producing well.

Q. Well, looking at Mr. Gawloski's Exhibit 10, a

well -- let's say Cimarex was forced to drill a south half/north half well. According to his own map, that doesn't look -- the south half/north half of Section 3 doesn't look much different than the Cimarex Yorktown well in Section 12 or COG's wells proposed or otherwise down in Section 15, nor does it look much different than some of the Cimarex wells, Ticonderoga wells in Section 16, does it?

A. I think our interpretation would be that it does look different than those wells, because of the thickness that you encounter along the length of the lateral.

Q. I'm looking at his plat. Show me where there's a difference.

MR. HALL: I'm going to object at this point, Mr. Examiner. This is beyond the scope of this witness's direct testimony. They're questions better directed to the geologist.

EXAMINER FESMIRE: I think Mr. Bruce does make a point. One of the witnesses is using a certain pinch-out and another witness is using a different pinch-out. I think he's entitled to explore the difference.

A. The pinch-out that I was provided in my exhibits came from Mr. Gawloski, where he felt that was

effective reservoir. The existence of reservoir in and of itself is not sufficient to be economic, so that is what we would say would be --

Q. (By Mr. Bruce) What he provided to you is different than this plat.

A. He provided that plat and also provided my exhibit -- the base of my exhibit with that purple line on it was his effective reservoir pinch-out.

Q. Again, a well in the south half/north half of Section 3 would pretty much have 40 feet of reservoir, and you are totally discrediting that in your exhibits, certainly in your Exhibit 15.

MR. HALL: Objection, argumentative.

EXAMINER FESMIRE: I'll sustain that one.

Q. (By Mr. Bruce) I'm asking you, if you're looking at Mr. Gawloski's Exhibit 10, he pretty much shows a location that Cimarex would drill in the south half/north half that would have approximately 40 feet, which is similar, is it not, to a number of other wells that are drilled and/or proposed?

A. Could you pick a specific well, please, that we could compare to?

Q. Sure. I already pointed some out. The Yorktown --

A. I would like for you to repeat that, please.

Q. The Yorktown Fee in Section 12.

A. Number 1 or Number 2?

Q. The one that's been completed.

A. Right, the Number 2. If you will see, that actually gets into some very thick reservoir. Towards the end of that wellbore, it actually gets into some 60 feet of pay. And we've demonstrated over here with the Marshall & Winston well that was drilled on the pinch-out that actually made a good well that if you can get into that thick, you can make a decent well. But if you stay in the thin or if it's not present at all, you really do run the risk of having that.

Q. So the Marshall & Winston well you're talking about is in Section 8?

A. That's correct.

Q. That well looks geologically inferior to a south half/north half well in Section 3, does it not?

A. No. Because you're still in -- you're high in the higher than 40 line on that one; whereas, if you go south half of north half, you barely skim the 30 line, so it's much thinner.

Q. I guess what I'm asking is, then, in Section 15, the Hercules Federal, are those COG proposals?

A. Yes.

Q. Well, those look inferior also to a south

half/north half of Section 3 well.

A. I disagree with your interpretation.

Q. It's going through the 20-foot line.

EXAMINER FESMIRE: Mr. Bruce, you made your point. Go ahead and move on.

MR. BRUCE: Okay.

Q. (By Mr. Bruce) Because the north boundry line of this reservoir is not determined, this is all speculative at this point?

A. That's where the risk comes in.

MR. BRUCE: That's all I have, Mr. Examiner.

EXAMINATION

BY EXAMINER JONES:

Q. Can you state one more time -- I spaced it out -- the drilling rate that you're asking for and the producing rate?

A. The overhead?

Q. The dollars.

A. 6,500 a month for drilling, and 650 for producing.

Q. Okay. Is this up on the cap? It's 10 miles north of Maljamar. Does that mean it's right on top of the cap, or is this still off in the --

A. I don't know the physical location.

Q. That's probably not a big deal. So it looks like on these horizontal wells in this Abo -- you're calling it Abo, too; right?

A. Abo/Wolfcamp.

Q. Your geologic risk is low, but your commercial risk is pretty -- is what gets you on this; right? Because you're spending a lot of money for these wells, and yet commercially, they've got -- you've got to pay that out, and you've got to -- so the well path themselves, is it dependent on the reservoir, I take it, the dip of the reservoir? Or do you try to design them to where the bottomhole location of your well is higher than where it enters the reservoir, where your well path enters it, so you can get your drainage to your pump better that way?

A. Yes. You definitely want that sump.

Q. You try to do that?

A. Yes.

Q. Is that affected here by the orientation of the well of your choice of orienting it east/west?

A. No.

Q. Is it because you're in the thinner part of the reservoir so you can't control that anyway, or would you still try to do that?

A. To geosteer? Is that what you're --

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Q. What I mean is, your bottomhole location, you want it to drain down to your vertical part of your well; right?

A. Um-hum.

Q. So is that desire to do that affected by the orientation that you pick on the well, whether it's north/south or east/west in this area?

A. I think your biggest job is trying to hit thickest pay.

Q. I don't know if we saw a structure map here. We saw --

A. Isopach.

Q. Okay. And what's the fracture direction out here?

A. That's a very good question. There's been some work done with FMIs, and there's really not a very clear picture of fracture orientation. I think it's very inconclusive at this point to say.

It's my understanding there are some wells that have minimal fractures at all that are drilled through, where they see just a handful of fractures.

Q. If you don't have any fractures, do you still get decent production?

A. With stimulation.

Q. So you can actually put a big frac job on it

or stages of fracs?

A. Yes, multiple stages, 10 plus stages of fracturing.

Q. What about the stress direction? Does that correspond with the fracture direction? In other words, you're trying to intersect your -- which stress direction are you trying to drill the well in in order to get your completion -- successful completion on the well?

A. Again, there's a lot of discussion about what that is, and I don't think the answers are conclusive, or I'm not the person to answer that. That may be more the geologist.

Q. So they would be looking to the FMIs and everything, but they -- we already heard the predominant direction is east/west out here, but your frac jobs, you think they go alongside the wellbore, or they go orthodox to the wellbore?

A. We've had success. I think it's hard to argue with the success we've seen with the frac job designs we've been using and the well orientation we've been using.

Q. I guess you'll have completion engineers here to testify today. Okay. If you have success, that's always a good thing.

What discount factor did you use on these

economics? Just ballpark. I don't need to know COG's --

A. That's a PB10.

EXAMINER JONES: Okay. I don't have any more questions.

EXAMINATION

BY EXAMINER FESMIRE:

Q. Ms. Slaton, for the two wells that you're proposing, what's the expected EUR for each of them?

A. I think I'd rather talk in terms of ranges. I think we could expect between 200 and 400 MBOEs per well based on this interpretation, which I agree with. Certainly the lower well, the southern-most well, would probably have higher EUR than the northernmost, because it is contacting thicker reservoir rock.

Q. You're expecting them to average between 2- and 400 EUR?

A. That's correct. That's our play average.

Q. Have you run the potential reserves on the Cimarex orientation?

A. Yes. That's the exhibit that you're seeing. I took the type curve model and reduced the recoveries, assuming that 100 percent recovery is a 160-acre well; therefore, an 80-acre well would be half the recovery. And that was run on a 250 MBOE model, but that's just the model that I selected, not necessarily what I would

assign to these specifics wells.

Q. I guess I understood wrong. Did you hold the reserves constant for both the four-well case and the two-well case?

A. No.

Q. No?

A. No. It's a volumetric equation with 160 acres of recovery versus 80 acres or 100 or 90. So the reserves are proportionately reduced based on reduced volumetric.

Q. You're estimating that your wells will drain 160 acres and that their wells will -- that's the --

A. 16, yeah.

Q. I guess what I'm getting at is how much more oil would be recovered under the Cimarex proposal down to the economic limit in all the cases?

A. I'm sorry. I don't understand your question. They would recover less oil than the Concho wells.

Q. They would recover less oil than --

A. An individual well; that's correct.

Q. But the four wells, the total, what would be --

A. The exhibit -- I think it's 320 acres for two wells for COG, and 370 acres for four wells for Cimarex.

Q. So since we don't have a constant thickness

here, how much oil would be recovered under the Cimarex proposal?

A. I need a calculator. You have 20 more acres, whatever you get for an additional 20 acres. I would say it's negligible additional oil to be recovered at the cost of drilling four wells to get 20 more acres worth of reserves.

Q. 20 acres, what thickness?

A. The same thickness in all wells. I just assumed a constant thickness.

Q. We go, essentially -- you know, in your wells, you got a 30-foot plus -- no, 50-foot plus on one of them and probably 60 on the other. Their wells are going to average somewhere in the neighborhood of 35; right?

A. Right. I won't argue with you that if you get down to trying to do volumetric well-by-well analysis, you will get different EURs for each well. We don't have the data to do that. I tried to keep it simple to express a point of virtually the same reserves can be developed with two wells as could be developed with four wells.

Q. But you're starting with that presumption. I'm saying by drilling four wells, you're going to drain more of the reservoir. And what would not be economically viable under your proposal would be

recovered under their proposal; right? Is there any way we can quantify that oil that's not going to be produced by development with two wells instead of four?

A. Actually, I believe that we would eventually drain more than 320 acres. If no one comes in and competes with us in that north half with an east/west well, we'll recover those barrels with our well. So it's a time thing. It becomes a value issue and how long you want to take to get it.

Q. So their proposal would essentially be an acceleration project? Is that what you're saying?

A. No, I don't agree with that so much. Because I feel like the idea of having to drill four wells to get essentially the same amount of oil is uneconomic. So while you may get reserves back faster, it's -- you know, double the cost is not offsetting the fact that you get those reserves out a little faster.

Q. I'm saying, looking at the two proposals, you're going to produce under your proposal X number of reserves; right? And if things are done the way Cimarex is proposing, they're going to recover Y number of reserves. Do you know what that difference is?

A. It would be the difference between -- well, I'm reluctant to go there in a specific well-by-well situation, because we don't really have the data to say

what those thicknesss are along the lines of the lateral.

Q. I'm saying if it is as mapped by your geologist, and you've expressed a lot of confidence in that map.

A. We will recover the same amount of reserves they recover eventually --

Q. Okay.

A. -- provided there's no offset well drilled.

Q. Okay. I'm curious about the difference in drilling. With the way you do it with the steerable --

A. Rotary steerable.

Q. -- rotary steerable, you're able to, within 40 or 50 feet, apparently, identify the rock that you're drilling into; is that correct?

A. That's correct.

Q. So if Cimarex does this, and the isopach is correct, they're going to be able to save substantial money off their AFEs because they're going to see they're outside of the producing horizon and save, you know, that length of lateral; is that correct?

A. No. They're still -- they're drilling from north to south, so they're still going to have --

Q. Okay. You're right. I'm sorry. So by your map, they're going to be drilling through barren formation before they get to the pay; right?

A. Correct.

EXAMINER FESMIRE: No further questions. Mr. Hall, do you have anything?

MR. HALL: Nothing further of this witness. In view of the additional line of questioning that's come up with respect to geologic issues, we'd like to recall Mr. Gawloski.

EXAMINER FESMIRE: Any objection, Mr. Bruce?

MR. BRUCE: Yeah, I think I'll object. They could have addressed this on direct.

EXAMINER FESMIRE: They're calling a rebuttal witness.

MR. BRUCE: To his own witness.

EXAMINER FESMIRE: Actually, to my questions.

MR. BRUCE: Go ahead.

EXAMINER FESMIRE: Okay.

MR. HALL: We recall Mr. Gawloski to the stand.

EXAMINER FESMIRE: Mr. Gawloski, you've been previously sworn in this case?

MR. GAWLOSKI: Yes, sir.

TED GAWLOSKI

Having been first duly sworn, testified as follows:

REBUTTAL EXAMINATION

BY MR. HALL:

Q. Mr. Gawloski, would you take Exhibits 10 and 15 before you -- or 14 or 15?

A. Okay.

Q. So which do you have before you? 10 and 14?

A. Yes.

Q. Would you explain to the Hearing Examiners how you arrived at your location for your Abo/Wolfcamp pinch-out lines on Exhibit 10 and then on Exhibit 14?

EXAMINER FESMIRE: This is in rebuttal to Mr. Bruce's question?

MR. HALL: Yes. And it also goes to some of the new questions raised by Mr. Jones with respect to geology.

EXAMINER FESMIRE: Mr. Bruce, normally we put this after your case. Do you have any objection to receiving it this way?

MR. BRUCE: No. Go ahead.

EXAMINER FESMIRE: Thanks. Go ahead.

Q. (By Mr. Hall) Let's compare Exhibits 10 and 14. If you would compare the lines you've indicated for the pinch-out of the Abo/Wolfcamp Formation in each of those exhibits, explain to the Hearing Examiners how you arrived at the locations for each of those contour lines.

A. Basically, the line in Exhibit 14 is roughly where the 20-foot contour is on Exhibit 10. Basically, you know, an effective pinch-out is not all the way to zero. I feel you have to have at least 20 feet to get any -- to get substantial reserves to make a well.

That Marshall & Winston well is 14 feet. That wouldn't have made it -- if they had 14 feet through that lateral, that probably would not have made a good well at all. That's what they're referring to, this effective pinch-out.

Q. What is the significance of any reservoir with less than 20 feet of thickness to your company?

A. Well, it would be a well that would definitely have to get looked at hard as to whether or or not it would be productive.

And Mr. Bruce did bring up, you know, another part of the map. We're actually looking at -- we haven't drilled those Hercules locations in the Number 4, and we're actually looking at that to see if that would be an economical place to drill. So we had that new control point from the well we drilled up in the north part of that section, so it's new data and we have not drilled that well yet.

Q. Ms. Slaton was asked about her knowledge of the stress and fracture directions in the area based on

FMI studies. Do we have any additional information with respect to that?

A. I have looked at some FMI data that was throughout the play. There's not a whole lot of it, but what was there was inconclusive.

First of all, there was very little fractures even in the reservoir. Most of them -- one of them had only one, which is not even enough to conduct a really decent study. Some of them had two and three and four, and their orientation was northwest, southeast, you know, diagonals, like this. Which if you went perpendicular, the stress would be in between. So it was conflicting data. So we didn't change our direction of drilling, because we've had really good success drilling it that way. So that data did not change our interpretation of how we should be drilling the wells.

MR. HALL: Nothing further, Mr. Examiner.

MS. MUNDS-DRY: No questions.

EXAMINER FESMIRE: Mr. Bruce?

REBUTTAL CROSS-EXAMINATION

BY MR. BRUCE:

Q. Mr. Gawloski, looking down in Section 15, you mentioned the Hercules Federal Number 4 --

A. Um-hum.

Q. -- that you would have to look at that. What

about the Hercules Federal Number 3?

A. We probably -- we have the second Hercules well that we're going to drill -- or proposed -- and we would evaluate that to see how that would look before we would proceed into the other wells.

MR. BRUCE: That's all I have.

EXAMINER FESMIRE: Real quick question. Again, on the transfer of the isopach to the reservoir exhibit, just in the shape, going from the section line between the middle of 3 to the -- let's not go there.

I have no questions. Mr. Hall?

MR. HALL: Mr. Examiner, I have one additional exhibit to tender into the record, our Exhibit 17, our notice affidavit for Case 14500. We move the admission of Exhibit 17, and that concludes our case.

EXAMINER FESMIRE: Mr. Hall, are you going to authenticate the exhibit?

MR. HALL: It's my affidavit, self-authenticate.

EXAMINER FESMIRE: Okay. Mr. Bruce, any objection?

MR. BRUCE: I don't have any -- I will ask permission to ask Mr. Hall a question.

EXAMINER FESMIRE: It's his affidavit. I

think that would be proper in this case.

MR. BRUCE: Mr. Hall, is this simply the affidavit of notice to the parties being pooled?

MR. HALL: It is, known at the time of the filing of the application.

EXAMINER FESMIRE: You still have one party to notice?

MR. HALL: That's correct. That's why we're asking the record to be kept open, I think, until September 5th or beyond, to allow us to provide additional notice to those recently discovered parties and make well proposals to them.

EXAMINER FESMIRE: Any objection?

MR. BRUCE: I don't mind it being kept open until the 5th. I think it might need to be kept open longer than that. But we'll continue it to the 5th, and we'll deal with it at that time.

MR. HALL: That concludes our direct in Case 14500.

EXAMINER FESMIRE: Exhibit 17 will be admitted.

Ms. Munds-Dry, you've got two witnesses?

(COG Exhibit 17 was admitted.)

MS. MUNDS-DRY: Yes, sir. I'd like to call Mr. Zerkle.

EXAMINER FESMIRE: Mr. Zerkle, you've been previously sworn in this case?

MR. ZERKLE: Yes.

EXAMINER FESMIRE: Would you be so kind as to, again, spell your name for the court reporter?

MR. ZERKLE: Z-e-r-k-l-e.

JUSTIN ZERKLE

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. MUNDS-DRY:

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

A. Justin Zerkle.

Q. Where do you reside?

A. Oklahoma City, Oklahoma.

Q. By whom are you employed?

A. Chesapeake Energy.

Q. What is your position?

A. Landman.

Q. And have you previously testified before the Division?

A. I have not.

Q. Would you review for the Examiners your education and work history?

A. I graduated with a bachelor of arts from

Anderson University in Anderson, Indiana, with a degree in finance and investments. I then began work with Chesapeake in 2005 in lease records, and have worked my way up to landman, and I'm a landman of New Mexico for all of Chesapeake's assets.

Q. You've been recently appointed all the New Mexico territory of Chesapeake; is that correct?

A. That's correct.

Q. Are you familiar with the applications that have been filed on behalf of Cimarex and COG?

A. Yes.

Q. Are you familiar with the status of the lands that Chesapeake has ownership interest in in Section 3?

A. Yes.

EXAMINER FESMIRE: Ocean, do we need to certify him?

MS. MUNDS-DRY: I was going to do that with my very next question.

We would tender Mr. Zerkle as an expert in petroleum land matters.

EXAMINER FESMIRE: Mr. Zerkle, do you hold any of the CPL certifications or anything like that?

THE WITNESS: I do not.

EXAMINER FESMIRE: Withstanding that, is there any objection?

MR. BRUCE: No, sir.

MR. HALL: No objection.

EXAMINER FESMIRE: He will be so admitted.

Q. (By Ms. Munds-Dry) Would you briefly summarize the basis for Chesapeake's objection to the Cimarex applications for the Boxer Wells?

A. Chesapeake supports and has elected to participate with COG's application for the Leo 3 Fed Com Number 1H, located in the south half of the south half of Section 3, 15 South, 31 East. And, therefore, because of that, we object to Cimarex's applications for their Boxer 3 wells in the east half/east half and the west half of the east half.

Q. And as you understand it, what is the primary reason that Chesapeake decided to join with COG on its Leo well?

A. It was primarily geological interpretation, and we believe through the geology that the south half -- the lay-downs that COG has proposed is what we would like to pusue and participate with.

Q. Will Chesapeake be calling a geology expert to further explore its reasons for joining --

A. Yes.

Q. If you could please turn to what's been marked --

MR. BRUCE: And we're going to take these out of order, Mr. Examiners, so you know that we did that on purpose.

Q. (By Mr. Bruce) Turn to what's been marked as Chesapeake Exhibit 4. What is Chesapeake -- if you could identify this exhibit and then tell the Examiners what Chesapeake's ownership is in Section 3.

A. What you're looking at is an ownership plot of Section 3. Chesapeake owns 50 percent in the southwest quarter and 12-and-a-half percent in the west half of the southeast quarter. Chesapeake does not own an interest in the east half of the southwest quarter.

Q. And the gray in the north half of Section 3?

A. That's based off of just internal ownership. And because we don't have title, that's what our best guess was at this time.

Q. Thank you. If you could turn to what's marked as Chesapeake Exhibit Number 1 and identify and review this set of documents for the Examiners.

A. Yes. This is Cimarex's proposal that we received on April 8th. This is for their Boxer 3 Fee Number 3 well located in the west half/east half.

Q. Is Exhibit Number 1 a packet constituting a summary of communications that you had with Cimarex?

A. Yes. We received the proposal letter and an

AFE.

Q. So that, I believe you said, was the letter dated April 8th?

A. Correct.

Q. And what would Chesapeake's interest be in the Boxer 3 Fee Number 3 well?

A. Approximately 6.2 percent.

Q. And if you could turn to the bottom of the letter, I believe in that last paragraph. What does the last sentence in that next-to-the-last paragraph state?

A. "An operating agreement identical in form to that previously agreed upon and entered into between Cimarex and Chesapeake will follow under separate cover."

Q. Did Chesapeake receive an operating agreement from Cimarex?

A. Yes.

Q. When was that?

A. We received it approximately June 25th or 26th.

Q. Is the fourth page the cover letter with that operating agreement that was sent to Chesapeake?

A. Yes.

Q. I believe the 5th and 6th page is the signature page and the cover page that was sent to the operating agreement; is that correct?

A. Yes.

Q. Did you or any other landman from Chesapeake have any other communications with anyone at Cimarex regarding this proposal?

A. Yes. Hugh Brower was the previous landman that oversaw this area, and I took this area over in late June. Hugh Brower had a conversation with Hayden Tresner on June 18th, and Hugh communicated to Hayden that Chesapeake had elected to participate with COG's proposal in the south half of the south half, and, therefore, would elect to participate with Cimarex's proposal in the west half of the east half.

Q. I believe on your first letter from Cimarex, the April 8th letter, it's Mr. Tresner that signed the letter of the well proposal; is that correct?

A. Yes.

Q. If you would turn to what's marked Chesapeake Exhibit 2 and identify this set of documents for the Examiners.

A. This is the proposal that Concho had sent to Chesapeake dated April 22nd, and Chesapeake received it April 26th. This is COG's proposal to drill the Leo 3 Fed Com 1H, located in the south half/south half of Section 3, 15 South, in Chaves County.

Q. Did they include an AFE?

A. Yes. Their proposal included an AFE and a proposed operating agreement.

Q. What is the third page of this exhibit? What is this document? The fourth page. I'm sorry.

A. This is the election letter that Hugh Brower, my predecessor, executed informing COG that Chesapeake elected to participate with Concho's proposed Leo 3 Fed Com 1H.

Q. What date is on the letter?

A. May 25th.

Q. If we turn three more pages beyond that, there's a letter dated July 8th. What is this letter?

A. This is the follow-up letter. Chesapeake elected to participate in Concho's Leo 3 Fed Com 1H. Hugh Brower and Jan Spradlin were working out some minor details as far as the language in the joint operating agreement. Therefore, when I took over the area, the operating agreement was executed by Chesapeake, and we sent those executed pages to Concho.

Q. And besides these letters, did you or Mr. Brower have any other communications with, I guess it would be Ms. Spradlin at COG?

A. Yes. We had communications to discuss how to proceed concerning the conflicting proposals from COG and Cimarex.

Q. What is Chesapeake's interest or what would Chesapeake's interest be in the Leo well?

A. 28.125 percent.

Q. Did Chesapeake receive any other well proposals from Cimarex in Section 3?

A. Yes. We received two additional proposals, the Boxer 3 Number 1 and Number 2. The Number 1 is located in the west half of the west half of the section, and 2 is located in the east half of the west half.

Q. Do you know the status of those proposals now?

A. Those have been withdrawn internally.

Q. What does that mean?

A. Withdrawn means -- when we receive a proposal from an outside company, it is then routed internally, and the team reviews that proposal to see if it's a proposal that the team wants to recommend to upper management. The team consists of a land manager, geological manager, engineering manager, and their subordinates. And if they decide that proposal is something they want to recommend, it is then routed internally to upper management for approval to participate.

So when I say "withdrawn," it means that the team does not recommend to participate in those wells to upper management. Therefore, it's withdrawn from our

system.

Q. Are you aware of whether Chesapeake had any further communication from Cimarex on either the 1H or 2H wells?

A. I'm not aware of any communication.

Q. You explained for us sort of internally how Chesapeake processes a well proposal once you receive it. Once you -- or Mr. Brower, I guess, in this case -- receive a proposal, what departments do you circulate a well proposal to?

A. Usually the proposal will come to the land department, and then the land department then would route it to geology and engineering for their review.

Q. And will Chesapeake be calling -- I believe you answered this -- be calling a geologist to discuss the geology in this area?

A. Yes.

Q. In summary, Mr. Zerkle, what does Chesapeake request the Examiner do in Cases 14507, 14508 and 14500?

A. Chesapeake requests that Cimarex's applications be denied and that COG's application be granted.

Q. In your opinion, would the granting of COG's application be in the best interest of conservation, the

prevention of waste and the protection of correlative rights?

A. Yes.

Q. Were Chesapeake's Exhibits 1 through 2 and 4 either prepared by you or compiled under your direct supervision?

A. Yes.

MS. MUNDS-DRY: Mr. Examiner, we would move the admission of Exhibits 1, 2 and 4.

EXAMINER FESMIRE: Any objection?

MR. BRUCE: No, sir.

MR. HALL: No objection.

EXAMINER JONES: Exhibits 1, 2 and 4 are admitted to the record.

(Chesapeake Exhibits 1, 2 and 4 were admitted.)

MS. MUNDS-DRY: That concludes my direct examination of Mr. Zerkle. Pass the witness.

EXAMINER FESMIRE: Mr. Hall, can I assume that you won't have any questions of these witnesses?

MR. HALL: I have no questions.

EXAMINER FESMIRE: Mr. Bruce, I won't make the same assumption about you.

MR. BRUCE: I just had one question of Mr. Zerkle.

Is being appointed Chesapeake's sole landman for

New Mexico a form of punishment?

No need to answer.

EXAMINER FESMIRE: Mr. Bruce withdraws the question.

Mr. Examiner?

EXAMINATION

BY EXAMINER JONES:

Q. Was the decision to go with COG based solely on the acreage percentage would be higher in that well, or did you hear other --

A. Are you asking as far as what Chesapeake's interest would be depending on which orientation of the well?

Q. Yes.

A. The decision was based on geology, but the interest for the Boxer Wells would differ depending on, again, the proposed -- at the time, individual JOAs. If we worked out a JOA for the whole section, it would be. But there was no -- the interest did not play a part in our recommendation to the team of whether or not we would evaluate the proposals.

Q. I just wondered how internally you --

A. The geology definitely is the driver of whether or not we're going to drill or participate in a well. The interest just comes alongside.

Q. The AFE amount, what about that? Was that talked about also?

A. I do not know.

EXAMINER JONES: Okay. I don't have any more questions.

EXAMINATION

BY EXAMINER FESMIRE:

Q. Has Chesapeake proposed any wells out here on this play?

A. Yes.

Q. Where are those wells?

A. We proposed in Section 13, 15 South, 31 East, that's the Wrinkle well, and that has been drilled and completed.

Q. Make a good well?

A. Right now, no.

Q. That's the only well they proposed out here?

A. We have proposed another well, the Poseidon, which is in Section 22, 15 South, 31 East. Cimarex would be a 50 percent partner in that well.

Q. When you say we've proposed it, have you approached Cimarex with that?

A. Yeah.

Q. Because that location, it looks like it's marked on their map as a Cimarex location.

A. Well, there's a letter agreement between Cimarex and Chesapeake on which wells will be operated, and I believe in Section 22 -- it's not on this plat here, but I believe it's the south half of the north half, we would operate that.

EXAMINER FESMIRE: So they would operate the one in the north half, which is where they were looking at.

No further questions.

Mr. Hall?

MR. HALL: No questions.

EXAMINER FESMIRE: Thank you very much, sir.

MS. MUNDS-DRY: I have just one follow-up on what you just asked.

EXAMINER FESMIRE: Okay.

REDIRECT EXAMINATION

BY MS. MUNDS-DRY:

Q. This is unfair, because I know you're new to the area so you're just learning. But do you know if the Chesapeake well in Section 10, Perseus Fed Com, if that's been drilled?

A. Yes, that has been drilled. I believe it's being completed at this time.

Q. It hasn't been completed yet?

A. No.

MS. MUNDS-DRY: That's all.

FURTHER EXAMINATION

BY EXAMINER FESMIRE:

Q. Is that just one well, or are there two wells there?

A. There's another proposed one. When I say, "proposed," a planned well on our drill schedule.

Q. Proposed internally?

A. Correct.

Q. They're both east/west wells?

A. Correct. Those are directly south of Section 3.

EXAMINER FESMIRE: Mr. Bruce?

MR. BRUCE: No questions.

EXAMINER FESMIRE: Mr. Zerkle, thank you very much.

MS. MUNDS-DRY: I'd like to call Mr. Martin.

EXAMINER FESMIRE: Mr. Martin, you've been previously sworn in this case?

MR. MARTIN: Yes, sir, I have.

ROBERT MARTIN

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. MUNDS-DRY:

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

A. Yes. Robert Martin.

Q. Where do you reside?

A. Edmond, Oklahoma.

Q. By whom are you employed?

A. Chesapeake Energy Corporation.

Q. What is your position?

A. I'm a senior geologist with the Permian Group.

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

A. Yes.

Q. Have you familiarized yourself with the applications that have been filed in what are known as Cases 14507, 14508, which are Cimarex applications, and 14500, which is the COG application?

A. Yes.

Q. Have you made a study of the geology in this area of Section 3?

A. Yes, I have.

MS. MUNDS-DRY: We would tender Mr. Martin as an expert in petroleum geology.

EXAMINER FESMIRE: Is there any objection?

MR. BRUCE: No objection.

EXAMINER FESMIRE: Mr. Martin will be so accepted.

Q. (By Ms. Munds-Dry) Mr. Martin, were you the geologist responsible for reviewing Cimarex's well proposals for the Boxer Wells?

A. Yes.

Q. Did you review COG's well proposal for the Leo Well, as well?

A. Yes, I did.

Q. As a result of these well proposals that you received from Cimarex and COG, did you conduct your own study of the geology in this Section 3?

A. Yes.

Q. Would you please explain for the Examiner your interpretation of the geology in Section 3? And if it helps you to refer to Exhibit Number 3, if you could identify and review that.

A. Yes. I will be looking at Exhibit 3. Exhibit 3 is an isopach of the Net Wolfcamp/Basal Abo. It's based on density porosity cutoff of zero percent or greater, and its contour interval at five feet.

What you see on the map in the brown dashed line, that's the acreage that affects Chesapeake that we

have a working interest in. We have the three wells that we would be involved in, the Cimarex Boxer -- the only one we'll talk about today is the Boxer 3 Fee in the west half of the east half.

The squares are surface hole locations. The circles are bottomhole location. The only wells that are showing on here are Wolfcamp wells that have been drilled, with the exception of the Cimarex Wrinkle Well that's been proposed for re-entry lateral. That is an actual vertical well that started this whole play. That's where the Wolfcamp was found vertically.

If there's not a well on here, it's because I don't know about it yet, or it hasn't been brought to the front as far as being produced yet. It displays a southwest to northeast porosity trend.

Q. Why did you use the zero percent cutoff?

A. Several years ago when Parallel and EOG, about six township and ranges west of here in Chaves and Eddy County, were drilling up the Wolfcamp horizontal gas play, we were partners in some of those wells, and that's what they used as their cutoff, was the density porosity.

We also tend to believe the density porosity is tied in a little bit with permeability, because we have an in-house petrophysical group that will go in and do what I consider black box calculations that I don't

understand. That's just a quick summary of what they do. That's the reason we use the density porosity as our cutoff.

Q. When you are looking and recommending whether or not to participate in a well or drill a well, what are you looking at in terms of your feet of pay that you'd like to make an economic well?

A. What I've seen in this area and the Crow Flats area, we like to see at least 10 feet. There's nothing super scientific about that. That's just what we've seen tends to work in those areas for the better wells.

Q. Do you disagree with Mr. Gawloski's geology interpretation in his cutoff that he used? I think they used 20 feet.

A. Mr. Gawloski used more of the neutron porosity in there. I guess that would tend to add a little bit more pay. So mine, I believe, is a little more conservative. That's -- no, I don't disagree with what he's done. You can get three geologists in a room and get four opinions.

Q. Is it fair to say that you used a different methodology, but your interpretations --

A. I would say they're fairly similar. We have the same type of trends.

Q. On the right side I see you have a type log.

Would you review that for the Examiners?

A. This is the Cimarex Energy Enterprise 11 State 2, and I've marked that on Exhibit 3, as well, where that is at. All I wanted to show there is what it is that we highlight and what we isopach as our net feet, the Wolfcamp. That's what the pink highlights are. And then the target interval there shows what they targeted in that particular well. That target interval is pretty predominant throughout this particular area of the Cedar Point. The lower porosity zones tend to show up.

Q. I'm not sure if I asked this. Pardon me for backing up. What did you use as your main control well for your isopach?

A. My main control well?

Q. For your main well control. Did you use the Marshall & Winston Caprock well?

A. Oh, to the north, yes. That well certainly surprised me, and the dry and abandoned, not much shows, and everything told me that the further north we go, we do start to reach that porosity cutoff and that the porosity will start to go away within the dolomite.

Q. Based on the data you've given us here today and your study of the geology of Section 3, what is your geologic conclusion about the probability of drilling an economic north/south well trending in the west half of

the east half of Section 3?

A. I have very serious concerns that it would be economic.

Q. Looking at Cimarex's proposal for Boxer Fee Number 3, do you believe that each of the quarter/quarter sections in that west half/east half would be equally prospective?

A. No.

Q. What is your geologic conclusion about the probability of drilling an economic well in the south half/south half of Section 3?

A. Right now, I believe it's good.

Q. And similarly, do you believe that each of the quarter/quarter sections in the south half/south half of Section 3, the well proposed by COG, will be equally prospective?

A. Can you ask that again? I'm sorry.

Q. Do you believe that each of the quarter/quarter sections in the south half/south half will be equally prospective? Do you think they'll each contribute equally?

A. Yes, I do. I'm sorry. Yes. I was going to say the thickness does change. I thought you were asking about that. But, no, I think each one will contribute significant pay.

Q. Did you recommend to Chesapeake that it participate in the COG well and not in the Cimarex well?

A. Yes, I do recommend the COG well.

Q. Why did you make that recommendation?

A. Based on the geology and the way that Chesapeake has mapped this or the way I have mapped it, I believe it is more prospective and more economic.

Q. In your opinion will the granting of COG's application be in the best interest of conservation, the prevention of waste and the protection of correlative rights?

A. Yes, I do.

Q. Was Exhibit 3 either prepared by you or under your direct supervision?

A. Yes.

MS. MUNDS-DRY: Mr. Examiner, we move the admission of Chesapeake's Exhibit 3 into evidence.

EXAMINER FESMIRE: Any objection?

MR. BRUCE: No.

EXAMINER FESMIRE: Exhibit Number 3 will be so admitted.

(Chesapeake Exhibit 3 was admitted.)

MS. MUNDS-DRY: That concludes my direct examination of Mr. Martin. Pass the witness.

EXAMINER FESMIRE: Mr. Bruce?

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MR. BRUCE: Really, just one or two questions, Mr. Martin.

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Looking down in Section 13, that well has been drilled and is producing?

A. The Wrinkle 13 Federal Com 1H?

Q. Yes.

A. Yes.

Q. Is that the well that Mr. Zerkle mentioned was not a very good well?

A. Right now it's not, no. We are still working on that one and are hopeful for a turnaround.

MR. BRUCE: That's all I have, Mr. Examiner.

EXAMINATION

BY EXAMINER JONES:

Q. Mr. Martin, was this all laid down as limestone and it's dolomitized?

A. Correct.

Q. Can you explain to me why this is pinched out, then? If it does pinch-out before the Marshall well, how is it -- this porosity is developed in the dolomite; is that correct?

A. Yes.

Q. I notice it does go negative 10 on the density. I guess it's run on a lime matrix?

A. It is run on a limestone. Yes, that's correct.

Q. So you end up with a pretty clear top to your -- whatever you call it out here?

A. Yes, sir.

Q. Abo or Wolfcamp?

A. Pretty clear. Your density comes up pretty fast.

Q. This is an isopach again. What about a structure map?

A. I apologize about that. It's more of a northwest to southeast dip. It doesn't quite mimic what is going on with the isopach, but it is similar.

Q. And this dolomitization, was it caused by waters moving through?

A. That's what we believe, this was probably some kind of inter- to mid-shelf and the waters come in and dolomitize and preserve the porosity.

Q. Preserved it?

A. Yes. The porosity was created and preserved.

Q. Well, what I'm getting at is does that process cause any kind of lineations or fracturing in --

A. Not that I have seen. And the fracturing I

have not seen either, so I can't answer that.

Q. So these logs, you can't run -- can you run them on these horizontal sections?

A. Yes, sir.

Q. But you don't normally?

A. No. It's very expensive.

Q. You just normally have the gamma ray and a mud log through the --

A. Through the lateral.

Q. So the information that you gained, you pretty much have to drill -- you gained some information by drilling a horizontal, obviously. But you don't, obviously, have the nice logged section to see. So you're drilling along, and you may be in a real thin zone, but you don't -- there's no way to tell, is there?

A. No.

Q. So still, you're based on the control of the vertical logged wells?

A. That's correct.

Q. You can't see this on seismic; is that correct?

A. I don't know, and I've never seen seismic out here. I don't know if they can or not.

EXAMINER JONES: I don't have any more questions.

EXAMINER FESMIRE: Just real quick.

EXAMINATION

BY EXAMINER FESMIRE:

Q. You don't have the BL 3 Fed Number 2 spotted on here. Why is that?

A. Which one?

Q. The northernmost of the COG wells in Section 3, in the northern half of the southern half of the section.

A. Oh, I'm not sure -- that's the only one that I've personally seen that's been circulated to me. If you're asking me if I've seen the COG Leo 3 Fed Com Number 2H, I have not.

EXAMINER FESMIRE: Okay. No further questions. Anything else?

MS. MUNDS-DRY: No, sir. That concludes our case.

EXAMINER FESMIRE: Mr. Martin, thank you very much.

Ms. Munds-Dry, do you have anything further?

MS. MUNDS-DRY: I do not.

EXAMINER FESMIRE: Mr. Bruce, I don't remember whether you reserved an opening statement.

MR. BRUCE: I think I'd rather reserve my comments for the end.

EXAMINER FESMIRE: Okay. I believe you've got your first witness available?

MR. BRUCE: Yes, sir.

HAYDEN TRESNER

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Please state your name for the record.

A. Hayden Tresner.

Q. Where do you reside?

A. Midland, Texas.

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

A. Cimarex Energy Company as a landman.

Q. Have you previously testified before the Division?

A. Yes.

Q. Were your credentials as an expert petroleum landman accepted as a matter of record?

A. Yes, they were.

Q. And is this township -- are you, within Cimarex, responsible for the land matters regarding this township?

A. Yes, I am.

MR. BRUCE: Mr. Examiner, I tender Mr. Tresner as an expert petroleum landman.

EXAMINER FESMIRE: You've been previously sworn in this case; is that correct?

THE WITNESS: Yes.

EXAMINER FESMIRE: Any objection?

MR. HALL: No objection.

MS. MUNDS-DRY: No objection.

EXAMINER FESMIRE: Are you a CPL?

THE WITNESS: A Registered Professional Landman.

EXAMINER FESMIRE: Okay. He will be so admitted.

Q. (By Mr. Bruce) Mr. Tresner, I've handed you what's been marked Cimarex Exhibit 1, which actually encompasses all of Cimarex -- well, except for a couple of notice exhibits and geology exhibits, so we're not going to -- we'll try to keep this simple.

If you'll turn after the first tab, what does that reflect?

A. That's the shot of the acreage, the position in the Caprock area. The yellow is Cimarex. The green is Chesapeake and/or Chesapeake COG. The orange is other operators. The maroon lay-down laterals are wells that Cimarex has drilled to date, both non-operated and wells that we drill and operate.

We drill and operate over 20 wells. I think

we've participated in four. And the green lay-down lateral lines are permitted locations.

Q. If you go passed the second tab, what is that?

A. That's the surface use agreement that we have with the land owner, Bill Medlin. He actually owns fee surface to all of Section 3, which is covered under the agreement itself.

Behind that is a plat of all of the tracts that Bill Medlin has that are covered by the surface use agreement.

Q. The cross-hatched acreage?

A. That's correct.

Q. This agreement is now almost a couple of years old; is that correct?

A. Yes.

Q. Okay. And there's just one agreement covering all of that cross-hatched acreage?

A. That's correct.

Q. Let's move on to the next tab. What is that first page?

A. That is the C-102 that we filed for the Boxer Fee Number 3 well in the west half of the east half of Section 3, 15, 31.

Q. And Cimarex seeks to drill that well to test the Abo/Wolfcamp Formation?

A. That's correct.

Q. The surface location will be -- now, take a step back. The northern quarter/quarter sections are actually lots, are they not?

A. That's correct.

Q. So this is a slightly irregular section. So although it's lot two in the other acreage, the project area for this well will be the west half/east half of Section 3?

A. That's correct, drilling from north to south.

Q. Then if you go back about five more pages to another C-102, what does this reflect?

A. That's the C-102 that we filed for the drilling of the Boxer Fee Number 4 well.

Q. And the well unit for that will be the east half/east half of Section 3; correct?

A. That's correct.

Q. And, again, is that being proposed to be drilled from the north to the south?

A. Yes.

EXAMINER FESMIRE: May I ask a quick question, Mr. Bruce?

MR. BRUCE: Yes, sir.

EXAMINER FESMIRE: Just out of curiosity, because it's been bugging me, why did you choose to put a

northwest offset on that between the surface location and the bottomhole location? All the others are pretty much parallel lines. Why does this one have an angle to it?

THE WITNESS: I think my geologist would probably be better to speak on that.

MR. BRUCE: Are you talking about the unorthodox location?

EXAMINER FESMIRE: Yes. Why is the bottomhole location 600 or so feet farther east from the surface location?

MR. BRUCE: I was going to follow that up.

Q. (By Mr. Bruce) Mr. Hayden, the surface location is unorthodox, and Cimarex will be applying administratively for that unorthodox location; correct?

A. Correct.

Q. Aren't their some surface issues out there that required -- originally, it was proposed at an orthodox location; is that correct?

A. That's true. Yes. To my knowledge, there's something in that northeast/northeast quarter that prevented us from having the standard setback location.

EXAMINER FESMIRE: Okay. That answers my question.

Q. (By Mr. Bruce) And then the other pages are simply matters that are usually attached to -- the

additionals with the C-102s are just additional plats that Cimarex usually submits with an APD to the Division?

A. Yes.

Q. Okay. Now, let's discuss your efforts to obtain the voluntary joinder of the parties. When did Cimarex first get an ownership report of acreage in Section 3?

A. I believe it was toward the end of 2007. I think in October.

Q. So you've been looking at -- just like -- Cimarex, along with COG and Chesapeake, have been in this township, looking around for similar periods of time?

A. That's correct.

Q. "Looking around" is probably a very inartful way of putting it. But they have been looking at drilling wells out here for several years?

A. Yes.

Q. Under the next tab, there's a bunch of correspondence. I don't think you have to go through it line by line. But what does this reflect?

A. These are the well proposals that I made for the Boxer 3 Fee Number 3 Well, COG's well proposal. Each well proposal contains a letter that briefly describes how we intend to drill the well, the footages and so forth. It's accompanied by an authorization for

expenditure.

And in this tab you have COG well proposal, the Chesapeake well proposal, and then the proposals that went out to the rest of the parties, namely Chisos, Pure, La Blanco Company and First Roswell Company.

Q. Okay. Now, along with -- well, actually, in this well unit, I believe, the Number 3 well, COG actually does not own an interest; is that correct?

A. They do not. That's my understanding.

Q. Behind the next tab, is this the correspondence regarding the Boxer 3 Number 4?

A. That's correct, same paperwork.

Q. Same paperwork?

A. The well proposals, the AFEs, and the description of how we plan to drill the well.

Q. Did you have phone calls with each of these parties, too?

A. I talked to everyone involved on multiple occasions.

Q. Then in your letters here, in June, you did submit operating agreements to the various parties?

A. Yes. And those operating agreements were signed by Cimarex and ready for their signatures, as well.

Q. Now, Cimarex has participated in wells with

Chesapeake and COG, has it not, in this township?

A. Yes.

Q. So each of you are pretty familiar with each other's preferred JOA forms?

A. I think so, yeah.

Q. In your opinion, has Cimarex made a good-faith effort to obtain the voluntary joinder of the parties in these well units?

A. Yes.

Q. Turn to the next tab, where you set forth the working interest ownership in the two proposed well units. Would you discuss that, please?

A. That's the breakdown of the ownership in the Boxer 3 Fee Number 3 well in the west half of the east half, 161.06-acre spacing unit. The west half of the northeast quarter is owned 100 percent by Cimarex. The west half of the southeast quarter, you have Cimarex, Chesapeake, Chisos, Pure and First Roswell Company. Those interests in the well come out to Cimarex with about 70 percent Pure, Chesapeake, First Roswell and Chisos.

Out of those five owners, two have signed our operating agreement, and that's under the other column, the total committed interests, where Cimarex has 70 percent, First Roswell will be in for 6 and Chisos for 4.

Q. So in this well unit, at this point, over 81 percent of the working interest owners have committed to Cimarex's well?

A. Yes.

Q. What about the next page regarding the Boxer 3 Well Number 4?

A. Same thing. It's just a breakdown of the ownership by tract. The first tract being the east half of the northeast, where you have Cimarex and First Roswell. Tract 2, east half of the southeast, where you have Cimarex, COG, Penroc and then a portion of interest that I really am not at a point to -- I'm trying to figure out who owns it.

Q. I think if you look at -- COG submitted an interest ownership breakdown chart. Most of this is at New Mexico Boys and Girls Ranch; correct?

A. Yes.

Q. And will Cimarex, similarly to COG -- you're having title rechecked again, are you not?

A. I'm actually having a stand-up drilling title opinion done.

Q. So there will be maybe one or two additional interests who may need to be notified?

A. Yes.

Q. One other thing. Let me give you COG's

Exhibit 2. There's an interest that COG credits to OXY. What is your opinion regarding that interest?

A. It's my opinion that that is actually owned by Cimarex. There's a recorded document in the county records that will reflect that.

Q. So at this point, you dispute COG's statement that that is now an OXY or OXY/COG interest and that that is controlled by Cimarex?

A. It's my opinion that Cimarex owns that interest, the 31 percent.

Q. Okay. And in looking at the total committed interests, Cimarex in the east half/east half, controls about 75 percent of the working interest?

A. Yes.

Q. And Penroc, again, has signed your -- First Roswell has signed the JOA for that Number 4 well; correct?

A. And so has Penroc.

Q. Okay. Turning to the next tab, there is series of letters. What do they reflect?

A. These are just letters from the partners that want to participate in the proposals that Cimarex has made, letters of support, the first one being from Penroc. They support Cimarex as the operator and agree that the best way to drill this well would be from north

to south, like Cimarex has proposed.

The second letter is from Sue Ann Craddock of Chisos, who is also a working interest owner in Boxer 3 Fee Number 3 Well. The third letter is from Thomas E. Jennings of First Roswell Company, showing his support in the operations that Cimarex is proposing.

Q. Now, Cimarex -- just a couple of questions on the basic land issues. I mean, Cimarex would have preferred to have had everything tied up before it went to hearing; is that correct?

A. That would be correct.

Q. But COG filed its pooling application before you did?

A. Yes.

Q. As a result, Cimarex felt compelled to file its counter applications?

A. Yes.

Q. One other thing, just looking at Section 3 in general, when it comes to ownership, as to the northwest quarter of Section 3, who is the working interest owner there in the Abo/Wolfcamp?

A. We're actually getting a stand-up title opinion done on that northeast quarter, as well. I've gotten a verbal.

Q. I'm asking about the northwest quarter.

A. The northwest? Okay. Same there. It's currently being examined, and it's my opinion that we own 100 percent of the northwest and most of the northeast quarter.

Q. On one of the exhibits, it was shown to be Kevin O. Butler & Associates, Inc., who does operate certain wells in a unit out there. But does Cimarex have an agreement with Butler?

A. We have a term assignment from Kevin O. Butler & Associates that covers his rights below the base of the south Caprock Queen Unit below the depths of 5,500 feet.

Q. Now, going back to some of the proposal letters, you had Cimarex's AFE attached to those proposal letters. What cost does Cimarex project on those wells?

A. I believe it's 3.8 -- $3,776,971.

Q. Is that a reasonable cost and is that cost in line with the cost of other wells drilled to this depth in this area of Chaves County?

A. As far as I'm concerned, yes.

Q. How many wells has Cimarex drilled in this township?

A. Approximately 20 wells that we've drilled and continue to operate.

EXAMINER FESMIRE: Sorry. Can you restate those rates again?

MR. BRUCE: That was my next question.

Q. (By Mr. Bruce) What overhead rates does Cimarex propose?

A. I believe drilling, 7,000, and producing, 700.

Q. Are those rates comparable to those used by other operators in this township?

A. Yes.

Q. If a working interest owner elects to go non-consent in these wells, do you request a 200 percent risk charge be assessed against them?

A. Yes.

Q. And do you propose that Cimarex Energy Company of Colorado be appointed the operator of these wells?

A. Yes.

Q. That's the operating arm of Cimarex?

A. Yes.

Q. In your opinion, is the granting of Cimarex's applications and the denial of COG application in the interest of conservation and the prevention of waste?

A. Yes.

Q. Were the land exhibits you discussed under Tabs 1 through 6 of Exhibit 1 prepared by you or under your supervision or compiled from company business records?

A. Yes.

MR. BRUCE: May I approach the witness?

EXAMINER FESMIRE: You may, sir.

MR. BRUCE: Mr. Hayden, I've handed you a couple of additional exhibits.

EXAMINER FESMIRE: Before we go any farther, you were talking about Tabs 1 through 6.

MR. BRUCE: Yeah. Unfortunately, I'm counting them, rather than having them labeled. But if you'd go through the first seven tabs, I apologize.

EXAMINER FESMIRE: Through the working interest calculations in the Boxer 3 Fee?

MR. BRUCE: Through the letters from Penroc, et al.

EXAMINER FESMIRE: That would be, from my count, eight. No. You're right. I'm sorry. I apologize.

MR. BRUCE: The first seven.

Q. (By Mr. Bruce) Mr. Tresner, Exhibit 2, what does Exhibit 2 reflect?

A. That is -- those are the company's that we notified and their offset operators or working interest owners adjacent sections or tracts.

Q. And in the past, the Division has required interest -- operators force pooling a non-standard unit to notify the offset operators or working interest owners

in that formation; is that correct?

A. Yes.

Q. Was notice given to all of those offset operators?

A. Yes.

Q. Is that reflected in my affidavit of notice submitted as Exhibit 3?

A. I've got 1 and 4. I don't have Exhibit 3.

EXAMINER FESMIRE: I've got 2 and 3.

A. Yes, to answer your question.

MR. BRUCE: And Mr. Examiner, Exhibit 4 is my affidavit of notice to the interest owners being pooled. You will note that I did not -- Pure Energy, I do not show a green card for them. That was returned, and that's why I have to -- I have re-notified, but as a result, that's another reason we need to continue this matter. I think I gave notice to -- their address changed within the past month or so, and I did get notice for the August 5th hearing, I believe.

As I said, I move the admission of the first seven tabs of Exhibit 1 and Exhibits 2, 3 and 4.

MS. MUNDS-DRY: No objection.

MR. HALL: I object to the one unsigned letter from Mr. Merchant. Otherwise, no objection.

MR. BRUCE: That objection is fine. We

will submit another one.

EXAMINER FESMIRE: So we will admit exhibits -- we will admit those exhibits in Exhibit 1 that are -- should have been numbered 1 through 6 --

MR. BRUCE: 1 through 7.

EXAMINER FESMIRE: -- 1 through 6, and we will conditionally admit Number 7 pending presentation of a signed copy.

MR. BRUCE: And Exhibits 2 through 4?

EXAMINER FESMIRE: And Exhibits 2 through 4.

MR. HALL: No objection.

(Cimarex Tabs 1 through 6 of Exhibit 1, Exhibits 2, 3, and 4 were admitted.)

MR. BRUCE: I pass the witness.

EXAMINER FESMIRE: Mr. Hall?

CROSS-EXAMINATION

BY MR. HALL:

Q. Mr. Tresner, I want to ask you about your surface use agreement with Medlin. Can you tell us how far along Cimarex is in negotiating surface damages with Mr. Medlin for your proposed locations?

A. For these proposed locations, all we've done is put four stakes in the ground. We're not quite there yet on settling any kind of damages.

Q. Has a site visit occurred?
A. No. Site visits have occurred, but not for these four wells.
Q. A site visit has not occurred with Mr. Medlin?
A. Not for these four wells, no.
Q. When were you first aware that the Marshall & Winston well in Section 35 was abandoned?
A. Gosh, I couldn't tell you. Probably shortly after they drilled through the lateral and didn't encounter what they wanted to find.
Q. Is it accurate to say that Cimarex's well proposals were precipitated by the Marshall & Winston dryhole?
A. Not at all.
Q. Had no bearing on Cimarex's decision to orient these wells?
A. No.
Q. I understood your testimony that your well proposals, based on your exhibits, went out on April 8th; is that correct?
A. The well proposals to COG and Chesapeake went out on April 8th.
Q. And your well proposal did not include a JOA; is that correct?
A. Did not.

Q. When did your JOA go out to the parties?
A. The operating agreements were mailed to all of the working interest owners except COG and Chesapeake.
Q. And why the delay?
A. We're both pretty familiar with each firm's operating agreement, and they know what to expect.
Q. Do you provide COG with the exact same form of operating agreement for every well proposal?
A. For these four wells ,yes.
Q. Only in these four wells?
A. And in other wells.
Q. Have you provided them with proposed operating agreements that differ from what were proposed for these wells?
A. Over the course of the past almost three years, I'm assuming I probably have.
Q. When did you request your drilling order title opinion to be commenced?
A. Between two to three weeks ago.
Q. And before that --
A. Possibly a little bit longer.
Q. And before that time, what were you working with to determine ownership in Section 3?
A. Some field ownership reports that had been provided by field contract -- field landmen.

Q. I believe you indicated that it was your understanding, based upon, I believe you said documents of record, that Cimarex was the owner of the interests acquired from Bold; is that right?

A. That is my opinion. The east half of the southeast quarter of Section 3 was included under our assignment from Bold.

Q. And have you personally read the instrument of record you were referring to that established that?

A. I have, but not within the past month or so.

Q. Do you know if it describes Section 3?

A. I'm confident that it does.

Q. Let's look at what we've marked as COG Exhibit 18. Is this the instrument you were referring to?

A. These are the two assignments that we acquired from Bold Energy.

Q. And is this a partial assignment of oil and gas and mineral lease that's filed of record in Book 605, page 851?

A. This appears to be the one.

Q. And if you look at Exhibit A to that assignment, does it describe Section 3?

A. No. And I probably should have mentioned this, that we went back and got an amendment signed of these two assignments. Both Bold and OXY signed that

amendment, and I think the amendment covers this Section 3 property.

Q. Is it a corrective assignment?

A. Basically, yes.

Q. And is it filed of record?

A. The one that I'm thinking of, yes, it is.

Q. Would you know book and page number?

A. No.

Q. Date?

A. No.

Q. Would you agree, based on your familiarity with oil and gas land transactions in Chavez, Eddy, Lea County, that any of the Bold interests that were not assigned to Cimarex, were acquired by OXY?

A. And that's why they signed the amendment.

Q. Mr. Tresner, is there any land issue that prevents Cimarex from establishing lay-down units in the north half of Section 3?

A. Land issues that would prevent us from drilling lay-down laterals versus stand-up?

Q. Yes.

A. Not that I'm aware of.

MR. HALL: Nothing further, Mr. Examiner.

EXAMINER FESMIRE: Ms. Munds-Dry?

MS. MUNDS-DRY: I think I have a few

questions. I'm going to see if I can figure out this tab system that Mr. Bruce put together for us.

THE WITNESS: That was actually my doing.

MS. MUNDS-DRY: That you carefully put together for us. I believe it's Tab 2. I'm looking for the C-102s.

THE WITNESS: The third one, I believe.

MS. MUNDS-DRY: Thank you.

CROSS-EXAMINATION

BY MS. MUNDS-DRY:

Q. I just want to make sure I understand your testimony. You said that these C-102s were filed?

A. These are the C-102s that our regulatory department has generated --

Q. So they haven't been --

A. -- that will be filed, if they haven't already.

Q. I see. I wanted to make sure I understood that. Thank you.

Now, where is the letter with the operating agreement? I think it's in the next tab.

A. Yeah, toward the back, the letters that I sent out.

Q. I see. Those letters are dated June 24th; is that correct?

A. That's correct.
Q. Do you recall a conversation you had with Mr. Brower at Chesapeake?
A. I've had multiple conversations with Mr. Brower.
Q. Do you recall a conversation you had on June 18th with Mr. Brower?
A. Not necessarily.
Q. Okay. If you could go to the tab that is two back, that gives the interest breakdown.
A. Yes.
Q. As I understand this document, it shows -- it breaks down for each of the 80 acres in your proposed non-standard spacing unit and project area; is that correct?
A. Yes.
Q. Does Cimarex have an interest in each of the 40 acres in the project area?
A. Yes.
Q. Mr. Tresner, I don't know if you know this, but I believe that Mr. Bruce asked you if Cimarex Energy of Colorado should be named the operator?
A. Um-hum.
Q. Do you know why it is that the application was brought by Cimarex Energy Company?

A. The application? No, I don't.

MS. MUNDS-DRY: Okay. That's all the questions I have. Thank you.

EXAMINER FESMIRE: Mr. Examiner?

EXAMINATION

BY EXAMINER JONES:

Q. So there was no notice sent to OXY; is that correct?

A. No. No, sir.

Q. Because in your title search, you found that OXY's -- the land that was presumed to be OXY's was actually --

A. By Cimarex. Yes.

Q. -- owned by Cimarex? So there is no notice to OXY yet. So it seems like there's a bit of a title dispute in this matter in this whole area. But you're pretty convinced that you guys don't all use the same guy in the courthouse, I would guess, different person, but --

A. Yeah.

Q. This Kevin Butler, you did provide him notice as part of the offset to the NSP, but you said their acreage is actually controlled now by Cimarex?

A. Yes. Cimarex controls Kevin Butler's Wolfcamp and Abo rights under this property, these tracts, Section

3.

Q. What would be the -- if you take the south half of Section 3, south half equivalent of Section 3, what would Cimarex's interest be?

A. In the west half of the southeast quarter, Cimarex owns 40 percent in that tract. And in the east half of the southeast quarter, Cimarex owns approximately 34 percent. So 34 percent times a quarter, and 40 percent times a quarter, would give you --

Q. Nothing in the southwest?

A. No. That's actually owned by Chesapeake and COG, fifty-fifty.

EXAMINER JONES: Okay. I have no more questions.

EXAMINER FESMIRE: Anything further, Mr. Bruce?

MR. BRUCE: One question. I wanted to clarify what Ms. Munds-Dry asked you.

REDIRECT EXAMINATION

BY MR. BRUCE:

Q. Cimarex Energy Company owns the actual working interest?

A. Yes.

Q. And Cimarex Energy Company of Colorado is the operating entity?

A. Yeah.

Q. So the applications were filed in the name of the working interest owner?

A. Yes.

MR. BRUCE: That's all.

EXAMINER FESMIRE: Mr. Hall?

MR. HALL: Nothing.

EXAMINER FESMIRE: Thank you very much, Mr. Tresner.

THE COURT REPORTER: Can we take a break?

EXAMINER FESMIRE: We've worn the court reporter out, so let's take a ten-minute break.

(A recess was taken.)

EXAMINER FESMIRE: Let's go back on the record. The record should reflect that we've reconvened in Cases 14500, 14507 and 14508.

I believe, Mr. Bruce, that you were about to call your next witness.

MR. BRUCE: Yes, our geologist.

EXAMINER FESMIRE: His name is?

MR. BRUCE: Ralph Worthington.

EXAMINER FESMIRE: Mr. Worthington, you've been previously sworn in this case?

MR. WORTHINGTON: Yes.

MR. BRUCE: Lately, I've taken to

numbering those tabs, so we'll start with Tab 8.

RALPH WORTHINGTON

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Please state your full name for the record?

A. Ralph Worthington.

Q. Where do you reside?

A. Midland, Texas.

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

A. Cimarex Energy Company and I'm a regional geologic manager.

Q. Have you previously testified before the Division?

A. Yes, I have.

Q. Were your credentials as an expert petroleum geologist accepted as a matter of record?

A. Yes, they were.

Q. Does your area of responsibility at Cimarex include this portion of Chaves County?

A. Yes, it does.

MR. BRUCE: Mr. Examiner, I tender Mr. Worthington as an expert petroleum engineer -- petroleum geologist.

EXAMINER FESMIRE: Mr. Hall, do you have

any objection?

MR. HALL: No objection.

MS. MUNDS-DRY: No objection.

EXAMINER FESMIRE: He'll be so accepted.

Q. (By Mr. Bruce) If you could look at your first plat, and could you describe that for the Examiners?

A. This is a nine-section plat showing the area of interest, Section 3, centered in the plat. I have an isopach and a structure map depicted on this map.

The structure map is indicated by the gray lines with the higher side to the northwest corner and lower area to the southeast coroner. The black line represents the isopach of the porosity within the lower Abo dolomite interval. That is our target interval.

Also on the map, I've got spotted various wells and locations and permits and stuff like that. I've also got a line indicating the line of cross-section, which is going to be my next exhibit. And the yellow acreage color here represents Cimarex's leasehold.

Q. Before I ask you some questions on this, why don't we go to the next tab and discuss your cross-section?

A. This is a cross-section that goes from north

to south indicated by the red line on the nine-section plat. It shows logs from the three wells that connected the one to the north, the Gulf Oil Company Caprock Unit. As indicated on previous maps, this is a 1958 sonic log and inductional electric log.

And for this interval, we only have a one-inch scale, so it is a -- what I would qualify as a poor log, barely able to correlate with, let alone try to do any kind of analysis with as far as identifying porosity. The second -- and on that I have the sonic log on the left column and the induction electric log on the right.

The next one is the Marshall & Winston Caprock State Well that was previously discussed as the only dry hole within this trend. You'll notice on the left side of my wellbore, there is not a porosity log. There was not a porosity log ran in this well.

According to the comments on the well header for the resistivity log, there were old problems, and the operator requested that the operating company or the Schlumberger or whoever logged it, not to run that log. And then to the right of that is a mud log of that vertical pilot hole.

The third well in the cross-section is the Cimarex Energy Company Wasp 2 State Number 1, which is the southern-most well on this cross-section. And,

again, I have a porosity log in the left-hand column. Right of the wellbore column, I have the resistivity log, and to the right of that is the mud log to that interval.

I have the various tops marked across the cross-section. And I've also identified the porosity in the Wasp well by the color green through there and identified that as the horizontal target.

Q. Is that a recently drilled well?

A. Yes.

Q. That's part of the log that Mr. Gawloski wants to get his hands on; is that correct?

A. That's what he said, yes.

Q. Let's go back to your first exhibit. You drill a zero line further to the north than your two fellow geologists do?

A. That's correct.

Q. Why do you do that?

A. Because I don't really have a data point that tells me I've got zero porosity. I've got vague indicators that the zone is getting tighter as we go to the north, and then I'm assuming that that Gulf well there in Section 34 is a zero porosity within that interval.

But the Caprock Well that we talked about before, my argument would be that we don't have a

porosity log so, therefore, I can't put a value on that porosity map. We do have indicators from mud logs and from the resistivity log, but the interval in question, has some thickness to it. We just don't know what the porosity is or anything like that. The mud log does indicate a show within that interval.

Q. In your opinion, there is some reservoir in the Marshall & Winston well?

A. Potentially, yes.

Q. Now, from a geologic standpoint, why would you prefer to drill these wells as stand-up wells?

A. From a standpoint of identifying where our boundary is, we still have that as a big unknown, so we need a good data point to try to prove that's the rest of our leasehold. We need data points at the north part of that section.

Secondly, from a geosteering standpoint, drilling from an unknown back to a known is much more comforting to our geosteering specialists, because they have a target that they can aim for. With our Wasp well pilot hole in the southwest/southwest of Section 2, we have a very thick porous interval that we can direct our wellbore towards.

Q. So the geosteering could start where it's an unknown but definitely go to a known, a well-known data

point?

A. But it would be a known when we drill a pilot hole. So it's an unknown today. We drill a pilot hole, then we would have that second piece of the puzzle.

Q. And you're not willing to condemn acreage in the north half of Section 3?

A. Absolutely not.

Q. On the other hand, it's not your job -- it's certainly not your job to recommend drilling dryholes to your management?

A. No, sir, it's not.

Q. I'm going to hand you --

EXAMINER FESMIRE: Would you like to approach the witness?

MR. BRUCE: If I may.

EXAMINER FESMIRE: You may, sir.

Q. (By Mr. Bruce) I've handed you Mr. Gawloski's Exhibit 10. In looking at that, what Cimarex proposes to do with the Boxer Numbers 3 and 4 doesn't appear to be much different than what Cimarex has done with its Franklin 18 Fee Number 4 well over in Section 18; correct?

A. That's correct.

Q. And that well has been drilled?

A. Yes.

Q. Are you planning on drilling the next well, the 18 Number 3, in the west half/east half of Section 18?

A. Yes, we are.

Q. I think the engineer will discuss that well further, but does that well look to be a successful test?

A. Yes.

Q. Would that also support your decision to drill these wells on a stand-up basis?

A. Yes.

Q. In your opinion, will each quarter/quarter section, from what you know now, each quarter/quarter section in the Boxer 3 Number 3 and the Boxer 3 Number 4 wells be productive from the Abo/Wolfcamp formation?

A. Yes, I believe it will be.

Q. I know you, basically, answered this, but comparing the maps of the three geologists today, do you believe that the effective porosity line is basically in the middle of Section 3?

A. I would say I have no idea. It could be much further north. It's probably not much further south, but without a data point --

Q. It's speculative at this point?

A. Yes, it is.

Q. And is it in the interest of all the operators

to get a firm idea on the northern boundary of this reservoir?

A. Absolutely.

Q. And it's not just Cimarex that it would benefit?

A. No.

Q. One further point. You said that you would prefer to start at a certain point and drill toward known control?

A. Yes.

Q. COG's well does exactly the opposite, does it not?

A. Yes, it does.

Q. So it's drilling west to where they propose that it thins out?

A. Yes. Without a control point there, you really don't know. The nearest control point is way down halfway in the section -- west half of Section 9. So they're literally over two miles away from the nearest control point.

Q. And so from that standpoint, you believe Cimarex's well proposals for the 3 and 4 wells are preferable to COG's?

A. Yes, I do.

MR. BRUCE: Do you have any other comments

on your exhibits, Mr. Worthington?

A. I don't believe I do. Yeah. I may say just to clarify a little more on the map, this does show just those wells drilled down to the Abo/Wolfcamp interval, because there are shallow wells out here in this area but I left them off the map.

Q. Over to the north and west, there's a Queen waterflood?

A. It is a Queen waterflood, yes, an old abandoned Queen waterflood or partially abandoned.

Q. Okay. Did you prepare the structure map and the cross-section for presentation today?

A. Yes.

Q. And in your opinion, is the granting of Cimarex's applications in the interest of conservation and the prevention of waste?

A. Yes, it is.

MR. BRUCE: Mr. Examiner, I move the admission of the exhibits behind Tabs 8 and 9, the cross-section and the structure map.

EXAMINER FESMIRE: Mr. Hall?

MR. HALL: No objection.

MS. MUNDS-DRY: No objection.

EXAMINER FESMIRE: The cross-section of maps between those tabs that should have been numbered 8

and 9 will be so admitted.

Mr. Hall?

(Cimarex Tabs 8 and 9 of Exhibit 1 were admitted.)

CROSS-EXAMINATION

BY MR. HALL:

Q. Mr. Worthington, what role did the abandonment of the Marshall & Winston Caprock State Well in Section 35 have in Cimarex's decision to orient these units stand-ups?

A. Well, I don't know that it had much of a role, other than, if anything, it reinforced our determination to try to establish some kind of a control point to the boundaries of this reservoir.

Q. Could you obtain a control point by drilling across to Section 3 from your acreage in Sections 2 or Sections 4?

A. From Section 4, yes. From Section 2, yes, that would be another data point.

Q. And you indicated it would be of benefit to Cimarex to prove up its acreage holdings to the north end of this play by having additional data?

A. Yes.

Q. How does -- do you know if COG has any ownership interest in the northern part of the play?

A. My landman says they don't have any ownership,

so I don't believe they do.

Q. So it wouldn't benefit them to prove up your acreage by drilling these stand-up units; is that correct?

A. That would be correct. Unless they have acreage to the north of that.

Q. What is your porosity cutoff used in drawing your isopach?

A. The porosity cutoff that we use at my company is a combination of 4 percent cross-plot porosity from the neutron density curve. But we've also used, in addition to that, I believe it's a minus two on the density curve.

Q. And you don't have any porosity available on the Marshall & Winston mud log?

A. That's correct.

Q. So how do you attribute 15 feet of value to that well on your isopach? Is that what we call geologic license?

A. It's just an extrapolation.

Q. Is it equally probable that the zero contour line is located to the south of where you've drawn it?

A. Yes, it is.

Q. We talked briefly about your contours. You're showing even on your map the thickest part of the

reservoir is located in the south half of Section 3?

A. That's right. The reservoir thickens to the south.

Q. And we talked briefly about your stand-up well in Section 18, that Franklin?

A. Yes.

Q. Isn't it true that you had better well control down there?

A. At the time we drilled that well, I believe we had drilled wells in Section 17, and so we did have a control point in the north half -- in that southwest part of the north half in Section 17. So that was a control point that we were drilling toward, yes.

Q. And is your lay-down well in Section 17 a good producer?

A. Yes.

MR. HALL: I have no further questions.

EXAMINER FESMIRE: Ms. Munds-Dry?

MS. MUNDS-DRY: I think Mr. Hall covered it. No questions.

EXAMINER FESMIRE: Examiner?

EXAMINATION

BY EXAMINER JONES:

Q. If you're going to get points, do you guys -- on these wells, are you going to drill pilot holes?

A. Yes.

Q. So you're going to -- so you would have four wells logged across the top?

A. Yes. I believe they are all planned to include a pilot hole.

Q. So you're going to get points there. That sounds good. But why not get a point by starting a couple of wells in the southwest quarter of 3 and drill pilot holes there?

A. We have done that before. We've alternated pilot holes from opposite ends so that we do have that control point.

Q. That one well, according to this isopach, it looks like you're giving it about 13 feet; is that right?

A. I don't think I put that kind of a number on it.

Q. I mean on the Marshall & Winston well; is that right?

A. I don't know that I'd lay my ruler on there.

Q. What I mean is, you didn't have a -- all you had was an induction log, is that right, and a mud log?

A. Yes.

Q. That's kind of a --

A. My point is that there is no number there. So I can move that line either way. But I don't know that

it's a zero, but I don't know that it's not 10 or 12. I don't know that.

Q. How old is that well?

A. It was completed in April of this year.

Q. Oh, it's a brand new well?

A. Yes, the Marshall & Winston well.

Q. And it was drilled unsuccessfully, but it was -- they went ahead and drilled it east/west.

A. They did.

Q. And do you think if it was drilled north/south, it might have been a little better? Was it a failure of the completion on it?

A. I just don't think they really were in the section as they drilled their lateral.

Q. They drilled it in the wrong spot?

A. They -- maybe. Well, obviously, they drilled a dry hole.

Q. Any bail-out intervals here? These wells are not Chesapeake's?

A. I don't believe we own the rights to the Queen. I believe that there may be another interval that we've been evaluating called the San Andres. That is another zone that we encounter shows in frequently when we drill out here. That is a zone that we've been evaluating a test in actually a little further west of

here. As far as I know, there's no immediate test in this area.

Q. That wasn't a decision factor in where to drill your vertical?

A. No, it was not.

Q. When you draw these contour maps, as a geologist, you have some sort of regional theory to use your control points to actually do the interpretation, instead of just letting the computer obviously do it?

A. Yes, sir.

Q. In this area, what is your theory? How did you decide to --

A. Well, our orientation here is regional. And what we think has happened here is that the units, as described earlier, were deposited, but there's been subsequent diagenetic alterations to these. And the top has been mentioned, the anhydritic dolomite. That's not a depositional surface. That's a diagenetic surface. And it appears to be very irregular, and it appears to be thinning as you go to the north.

That interval that's affected is thinning to the north, where if you go very much further, it's gone. So in other words, the anhydrite has come down through this lower Abo reservoir interval and completely occluded all the porosity and has created the pinch-out for this

tract.

Q. So it gradually pinches out somewhere toward the north?

A. Yes.

Q. I guess one more question on that. That well that was -- they decided not to run the radioactive logs in this well for a reason. It must have had some problems.

A. They must have had some kind of a hole problem, mechanical problem or something like that, stability of the hole.

Q. Stability of the hole? But you're proposing a well to be drilled, it looks like about 900 feet southwest of there. And you don't think you'll have the same hole problems?

A. I think there's a shale within the upper part of the Abo that creates a lot of hole problems and stuff like that. My company has found a way to get around that. I believe they're using an oil-base mud to drill through that interval to prevent swelling of the clays and shales and stuff like that. So we've been able to successfully drill that without any problem.

EXAMINER JONES: Thank you.

EXAMINATION

BY EXAMINER FESMIRE:

Q. Mr. Worthington, you talked about pilot holes. I think I've figured it out. Could you tell me exactly what you mean when you talk about these pilot holes?

A. It will give you the direction. It will guide you to where you want to be. So drill vertically down through the formation, run your electric logs in there, and then you've been able to identify your target interval, and then you compare it to your target at the end of your lateral a mile away.

So a pilot hole, I guess, would be described as something that's going to guide your way.

Q. So it's just a vertical well --

A. Yes.

Q. -- under your surface location, and it's not where you intend to be after you kick off?

A. That's right, yeah. The landing point for your horizontal well would be some 2- to 500 feet away from that vertical point.

EXAMINER FESMIRE: Mr. Bruce, I have no further questions. Do you have anything else?

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

EXAMINER FESMIRE: Thank you very much,

Mr. Worthington.

Mr. Bruce, do you have another witness?

MR. BRUCE: Yes, sir.

EXAMINER FESMIRE: Would you state your name, please?

MR. LAUTENSCHLEGER: Jason Lautenschleger. Jason will suffice.

EXAMINER FESMIRE: Yeah, except for the record, so you're going to have to spell it for us.

MR. LAUTENSCHLEGER: L-a-u-t-e-n-s-c-h-l-e-g-e-r.

JASON LAUTENSCHLEGER

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BRUCE:

Q. You've already stated your name, Mr. Lautenschleger. Where do you reside?

A. Midland, Texas.

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

A. Cimarex Energy as a reservoir engineer.

Q. Have you previously testified before the Division?

A. I have not.

Q. Could you summarize your educational and employment background for the Examiners?

A. I graduated with a BS in petroleum engineering from Colorado School of Mines, Northern Colorado. And I have been employed by Cimarex since 2007.

Q. Does your area of responsibility -- and you are a reservoir engineer?

A. Yes, sir.

Q. Does your area of responsibility at Cimarex include this portion of Southeast New Mexico?

A. Yes. That has been my focus.

Q. This particular area?

A. Yes, sir.

MR. BRUCE: Mr. Examiner, I tender the witness as an expert reservoir engineer.

EXAMINER FESMIRE: Is there any objection?

MR. HALL: No objection.

MS. MUNDS-DRY: No objection.

EXAMINER FESMIRE: Mr. Lautenschleger, are you a registered professional engineer? I'm assuming not, since you've only got three years out of college.

THE WITNESS: I have one year out of college.

EXAMINER FESMIRE: One year?

THE WITNESS: Yes, sir. I began working with Cimarex while in school.

EXAMINER FESMIRE: Notwithstanding that

there are no objections, we'll accept your credentials.

Q. (By Mr. Bruce) Would you look at your first exhibit and just briefly identify that for the Examiners?

A. The first exhibit is a township map reflecting the lower Abo/Wolfcamp locations that I have included in my subsequent graphs.

Q. All of these have been drilled and completed; correct?

A. No. Some of them are in the process of being drilled, some of them are waiting on completion, and some of them are producing.

Q. But these are -- so action has been taken on drilling these wells?

A. Yes, sir. These are not permits. These are actual -- like something after spud.

Q. Okay. Move on to your next tab. What does that reflect?

A. This is a graph of Township 15 South, 30 East, of the lower Abo/Wolfcamp wells shown on the aforementioned map, summarizing operator experience and who's done what here.

And what this reflects is that Cimarex has drilled and is operating or producing 20 wells, and this is a much greater figure than the competition.

Q. Mr. Tresner testified about the AFE. It was

about 3.8 or $3.9 million, if I recall. But from your experience, has Cimarex been drilling wells in line with that general cost projection?

A. Yes. Cost, as we all know, has risen recently and fairly rapidly. If you look at any given time in the last year that I've been working this trend, our costs have been less than our competitors.

Q. And go to your final tab. What does this reflect?

A. This is a plot of comparing the wells that I had production available for. Most of these are east/west laterals. One, the Franklin 18-4, the green-colored one, is the only north/south lateral in the township. And the red on the very top is the average of the east/west laterals.

Q. Through the 35th day of production?

A. That's correct. It's just a cumulative value.

Q. Now, what is the average for the east/west wells, the lay-down wells?

A. The average cumulative value for the east/west wells I have available is 11,824 barrels on the 35th day of production.

Q. Then you have the green line, the Franklin 18-4H. What is that?

A. That number is 15,261 barrels.

Q. How much greater is that than the average east/west well?

A. Percent difference is 29 percent greater.

Q. The Franklin 18-4H is your first vertical well in this area?

A. Yes, sir.

Q. There's another well permitted to the west of that Franklin 18-4, the Franklin 18-3. What is the status of that well?

A. It is to be drilled as soon as the rig is available, and that will be about three weeks.

Q. So in looking at this, the first vertical well performed above average for the lay-down wells?

A. Yes, sir.

Q. And the second page of this tab, is that simply the backup data for your plat?

A. Yes, sir. It shows the numbers varying in five-day increments, the cumulative values, as well.

Q. How many wells has Cimarex drilled this year in this township, roughly?

A. Maybe 10 would be an approximation.

Q. And what was -- I meant to ask this before. What was the initial potential on the Franklin 18-4 well?

A. The well IP'd at approximately 750 barrels a day.

Q. That's better than average, too, isn't it --
A. Yes, sir.
Q. -- the potential on the well?
A. Yes, sir.
Q. Now, I mean, it's apparent that the large majority of wells in this township have been drilled as lay-down units.
A. Yes.
Q. Does that necessarily mean it's the best thing to do?
A. No.
Q. And I think you were here listening to Mr. Gawloski testify, were you not?
A. Yes.
Q. I think his statement was that the initial wells in this township were drilled as lay-down, and people just kept doing that.
A. Sure. If you drill a east/west lateral in a section, that sets up the whole section to be drilled east/west.
Q. So once one well is drilled in a section, that sets up the other three wells in the section?
A. Yes.
Q. In your opinion, would it be better to test Section 3 with stand-up wells?

A. Yes.

Q. Do the results from your first stand-up well in this township support that?

A. Yes, it does.

Q. Were the exhibits under Tabs 10, 11 and 12 prepared by you or under your supervision?

A. Yes.

Q. In your opinion, is the granting of Cimarex's applications in the interest of conservation and the prevention of waste?

A. Yes.

MR. BRUCE: Mr. Examiner, I move the admission of Tabs 10 through 12.

MR. HALL: No objection.

MS. MUNDS-DRY: No objection.

EXAMINER FESMIRE: Tab 10 through 12 are admitted into the record.

(Cimarex Tabs 10 through 12 of Exhibit 1 were admitted.)

MR. BRUCE: Pass the witness.

EXAMINER FESMIRE: Mr. Hall?

CROSS-EXAMINATION

BY MR. HALL:

Q. Can you tell us what your reference to the Franklin 18-4H, what's the current production rate on that?

A. It is over 300.

Q. It has declined?

A. They always do.

Q. Is Cimarex producing its east/west wells in a manner that's any different from its production of the north/south wells?

A. No. The way we produce our wells is determined by the productivity of the well at a given time. Initially, we produced it one way. And as the reservoir pressure declines in the localized region around that wellbore, then we produce it a different way.

Q. Tell us how you produce them. Are they on a pump?

A. Initially -- they're all on a pump, yes. Initially, we are completing them and producing them on the ESP, electrical submersible pump. This allows us to get greater draw down and obtain higher initial rates. Then when the pressure is drawn down, we then change to a beam pump, which is operationally less expensive, and we continue to produce the well that way. It's a matter of achieving the rate that the reservoir is willing to give up with a pump inflow/outflow performance.

Q. From a reservoir engineering perspective, is there any reason why you cannot develop the north half of Section 3 with lay-down units?

A. No.

Q. Your recommendation in response to Mr. Bruce's question that Section 3 be developed with stand-up units, is based on nothing more than statistical analysis; is that correct?

A. No, that's not correct.

Q. Cimarex is not contending, is it, that COG is not a competent operator in the Abo/Wolfcamp?

A. I'm afraid I'm not sure -- you're asking me if we believe they're a competent operator?

Q. Yes.

A. I believe they're a competent operator. However, we are more experienced in the region and have shown to be able to drill and complete these wells more effectively, less expensively, and obtain better results.

MR. HALL: Nothing further. Pass the witness.

EXAMINER FESMIRE: Ms. Munds-Dry?

CROSS-EXAMINATION

BY MS. MUNDS-DRY:

Q. Have you performed any production curves for your Franklin 4-H well?

A. Performed production curves?

Q. Have you made a production curve?

A. Yes.

Q. It looks to me like you didn't provide it. Does it look any different than your east/west wells in the area?

A. No. They decline similarly, if that's what you're asking. The data is actually demonstrated on the last exhibit I provided numerically.

MS. MUNDS-DRY: Thank you. That's all the questions I have.

EXAMINER FESMIRE: Mr. Examiner?

EXAMINATION

BY EXAMINER JONES:

Q. Do you put these on automation, the wells out there? Or do you just have pumpers going on?

A. We have pumpers checking these things. I don't know if they're automated. I believe they're not.

Q. But there's plenty of electricity out there?

A. Yeah. The entire township is electrified. That's one of the first things that's done after the well is drilled.

Q. Are those ESPs, nowadays, variable speed drives?

A. Yes, we include variable speed drives. That way we can optimize the life of the pumps.

Q. And you can't put them into the curve, can you? Or it's not advisable?

A. Not advisable, no.

Q. What is the radius of your build on the -- is it 300 feet?

A. That's approximately the vertical section that's accumulated over -- we use short radius.

Q. Considered short radius?

A. Yeah.

Q. What's the gravity of the well out there? I mean, is it --

A. The API?

Q. Is it a vast difference between the -- is it easy to separate from the water?

A. Yes. We don't have problems with this.

Q. No problems?

A. Yes. I don't know the precise number.

Q. Do you get involved in the completions?

A. I do. I am on site.

Q. You witness the frac jobs?

A. Yes.

Q. Design them?

A. (Witness nods head.)

Q. You and the service companies design the frac jobs?

A. Yes.

Q. Can you -- I guess for my -- can you tell us

about it a little bit?

A. Sure. Our completion consists of -- we've done it a number of different ways. We've tested perforations, perf and plug operations, and we tested open hole packers. The predominant method of choice has been open hole packer systems and we've gone that route. That's a plumbing difference.

Now, the fluid system that's pumped has been mostly the same. Initially, in the field, you might call it an acid frac, where you go in and do an acid spot of about 5,000 gallons of 15 percent NEFE HCL, and then flush that away, and then come in with a cross-linked acid, something equivalent to BJ deep spot, and then pump that frac with that.

In the development of the entire Abo trend, operators began using -- started pumping a large amount of sand and prop it and began seeing a benefit from that. And we also began doing that over a year ago.

And so the frac has changed over to a frac that's very similar, where we pump a 5,000 gallon -- this is per stage -- 5,000 gallons of 15 percent NEFE acid, and then we sweep that away and come in with another 5,000 gallons of the BJ deep spot or equivalent, and sweep that away. And then we come in and we frac the well with a 17-pound cross-link bore 8 system as our pad,

and we stick with that, and we pump a 20-40 prop in, and we tail in with resin coat to prevent sand flowback.

EXAMINER FESMIRE: See, things haven't changed that much.

THE WITNESS: They have. They've gone from 35,000 pounds total in a well to two million pounds of profit.

Q. (By Examiner Jones) Two million?

A. Yes.

Q. You have to truck that in with a train.

A. Yeah.

Q. How many pounds per gallon do you get, the maximum concentration?

A. Maximum concentration has been up to four pounds per gallon.

Q. How many stages?

A. We've been using nine. We tried one with 10 --

Q. Ten packers?

A. -- several have been with 13. Yes, sir.

Q. Then you go drill it all out and --

A. Yes. We drill out the ports and return the liner system back to a full bore.

Q. That resin coat doesn't come back at all? I mean, it helps your sand not to come back?

A. Sure.

Q. So you can actually run in with a submersible pump and not get it eaten up by the sand?

A. I had one failure with an ESP, and that was on a well that we -- we were not able to push our coil tubing out all the way. This was before we had the ports that we could drill out.

The company we work with for open hole packer systems and stuff, they have switched from using a P110 port to a duck-tail hardened seat, to where we're now able to drill the 64 wellbore, and we haven't had any trouble cleaning out the laterals, and we haven't had sand collection issues.

Q. Do you pump your frac down a casing, or is it down a work string?

A. The vertical part of the well is down seven-inch P110, and the horizontal is down four and a half inch, the liner system.

Q. Okay. So you don't have a dead string or anything to measure your bottomhole pressures?

A. No. Those are calculated bottomhole pressures from surface pressures.

Q. I guess what I'm -- the part we're talking about here is, the pressures that you get on your frac jobs, do you notice any difference between stand-up wells

and the lay-down wells? In other words, as far as the porosity around the wellbore.

A. No.

Q. You don't notice any?

A. I haven't noticed any difference. I've only had one well. So, you know, my numbers are -- I have a lot of data points here and just a few here. That might be tough to determine. I haven't observed a decrease.

Q. So you don't have failures of fracs when you drill certain directions? Your frac jobs go off okay?

A. We have screened out on east/west laterals, and we have screened out stages on the north/south lateral. Some of our best wells have screened out on a given stage.

Q. So you have no real opinion on the stress direction out here?

A. I have an opinion.

Q. What do you think?

A. Well, there's additional data besides the statistics of that information presented, and that would lead me to believe that the orientation of the fractures is greater than a northeastly -- greater than an 045 orientation and more into an east/west orientation.

Q. More toward northeast/southwest?

A. More than 45 degrees.

Q. A little more?
A. Yes. Marginally more.
Q. So it kind of mimics your structure mound a little bit?
A. Yes.
Q. The dip?
A. Unrelated in my opinion, but, yes.
EXAMINER JONES: Thank you. That's all I have.
EXAMINER FESMIRE: I do have a couple of questions.

EXAMINATION

BY EXAMINER FESMIRE:

Q. The first one, though, is sort of a related one that Will asked you. Where do you hang those ESPs? Are they up above the beginning of the radius, or are they right down -- tucked in?
A. Well, they're as low as we can get them.
Q. So you tuck them in until they don't go any farther?
A. Yes. We don't jam then in the hole, but put them as -- you know, calculate the depth that the curve has landed and put them there.
Q. Can I talk a minute about EURs? Have you done any work, other than the average -- using the average to

get an EUR on some of these wells?

A. Yes. I have EURs for wells in the entire trend, not available with me today, but I have done that work and analysis.

Q. Could you tell me what sort of range we're looking at?

A. An average -- let me preface this. In the Caprock, if you look at an entire distribution of the Abo trend, in the Caprock we find -- it's Township 15 South, 31 East -- the wells are on the upper end of that distribution. So an average in Caprock is over 300. It ranges between 300 and 350.

Q. Are we talking horizontal wells?

A. Yes, sir, the horizontal wells.

Q. They have to be re-frac'd during their lifetime?

A. No. This is determined from decline curve analysis, current productivity.

Q. Given the Section 3 locations, do you have an opinion of what the EUR would be on the Chesapeake well -- I mean, the Concho wells running east/west?

A. It is my opinion that I have no technical basis to justify a difference between any given 40 in that section. As you've seen, the maps vary. You have to look at what the maps are drawn from. And to

determine a difference, you would have to assign it -- give it some basis -- and the only point of control is the Wasp in the next section. So I can't delineate a given 40 from another.

Q. So it's your testimony that we'd probably get the same per well EUR when we drill north/south or east/west?

A. You may actually obtain more, if a fracture orientation is more orthogonal to a north/south well.

Q. So I guess it's your testimony that by only drilling two east/west wells, we would be leaving reserves in the ground?

A. If you only drilled two versus the four, yes, you would be abandoning the reserves.

Q. Do you have an opinion as to the amount of reserves we would be leaving?

A. That opinion would be based on averages and the one data point in Section 2. I couldn't extrapolate that. After the wells are drilled, I can pinpoint it.

One of the advantages to north/south laterals that Cimarex is proposing is that you have your data point at the start of your lateral, you have a data point at the end of your lateral. And, you know, there's a lot of things going on in between there, but at least I have two data points, rather than one, for that proration

unit. That helps me in terms of booking accuracy and fitting it volumetrically and for the SCC purposes.

Q. The EURs you're talking about, what kind of projected life are you expecting on these wells to get those 300 plus EURs?

A. They're 40, 60 years, in that range. The wells flatten out considerably over their lifetime. They start high and decline rapidly and flatten out. A number to kind of put on that might be 100 barrels a day.

Q. They flatten out at 100 barrels per day?

A. They don't stay perfectly flat, but they -- the percent decline is greatly reduced.

Q. At about 100 barrels per day?

A. Some are higher, some are lower, yes.

EXAMINER FESMIRE: I have no further questions. Mr. Bruce?

MR. BRUCE: No, sir.

EXAMINER FESMIRE: Mr. Hall?

MR. HALL: One question.

RECROSS EXAMINATION

BY MR. HALL:

Q. You indicated you have no technical basis to attribute more reserves to any particular 40-acre tract than another in Section 3; is that accurate?

A. That's accurate.

Q. Does that mean that you did not look at the geologic maps?

A. No. I looked at the geologic maps, but I also looked at what those geologic maps are based on, and they're based on one data point of control and another questionable data point of control. We're inferring that it's thinning, but it could be thickening. You don't know until you drill it. We are currently shooting seismic to help define that edge.

Q. So you listened to Mr. Worthington testify today?

A. Yes.

Q. And you would agree with him that it's equally probable that the north half of Section 3 is not productive?

MR. BRUCE: I would object. I don't believe that was Mr. Worthington's testimony. I think he testified that the zero line might be a little different than he --

EXAMINER FESMIRE: I think the Examiners will have a copy.

MR. HALL: Let me restate that.

Q. (By Mr. Hall) Do you believe that it's equally probable that the zero contour line on the isopach could be located either north or south of where

it's drawn on Mr. Worthington's map?

A. It could be equally.

Q. So you don't disagree?

A. No.

MR. HALL: That's all I have.

EXAMINER FESMIRE: Ms. Munds-Dry?

MS. MUNDS-DRY: No more questions.

EXAMINER FESMIRE: Anything else?

MR. BRUCE: No, sir. That's my case.

EXAMINER FESMIRE: I assume nobody wants to give a closing statement?

MR. BRUCE: I think it's pretty apparent where we're going.

EXAMINER FESMIRE: Okay. We will take these three cases under -- oh, Mr. Hall?

MR. HALL: While we're still here, let me move the admission of COG Exhibit 18, which is the instrument that's recorded in Book 605, page 851, in Chaves or Eddy County. I'm not sure which.

MR. BRUCE: Aren't there two recorded instruments?

MR. HALL: It's also the assignment that's recorded at 605, page 848, as well. Both comprise Exhibit 18.

MR. BRUCE: No objection.

EXAMINER FESMIRE: Exhibit 18 will be admitted. And Will reminds me that we will not take it under advisement. We will continue it to the September 2nd Division hearing date and take it up again then. You've indicated that the additional evidence that you're wanting to present will be available to the Division when?

(COG Exhibit 18 was admitted.)

MR. HALL: That remains to be seen.

EXAMINER FESMIRE: You want to leave it open until September 2nd?

MR. HALL: We will know, I think, in advance of September 2nd.

MR. BRUCE: If we do, we can pre-file it. But at this point, we don't see any need for additional live testimony.

EXAMINER FESMIRE: Why don't we put a limit on it, August 15th, so we can look at it before the hearing. August 15th, I don't even know if it's a weekday, but it's the weekday on August 15th or immediately -- the first workday immediately preceding August 15th.

MR. BRUCE: The 15th is a Sunday.

EXAMINER FESMIRE: So it will be the 16th. Is there anything else before the Hearing Examiners

today?

MR. HALL: No, sir.

EXAMINER FESMIRE: Thank you all. We will adjourn.

* * *

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

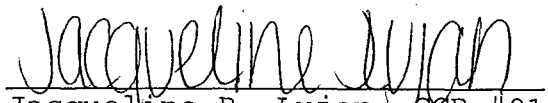
_____, Examiner
Oil Conservation Division

REPORTER'S CERTIFICATE

I, JACQUELINE R. LUJAN, New Mexico CCR #91, DO HEREBY CERTIFY that on July 22, 2010, proceedings in the above captioned case were taken before me and that I did report in stenographic shorthand the proceedings set forth herein, and the foregoing pages are a true and correct transcription to the best of my ability.

I FURTHER CERTIFY that I am neither employed by nor related to nor contracted with any of the parties or attorneys in this case and that I have no interest whatsoever in the final disposition of this case in any court.

WITNESS MY HAND this 4th day of August, 2010.



Jacqueline R. Lujan, CCR #91
Expires: 12/31/2010