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1 The first item on the docket on Page 2 is Case 2 Number 14730, and this is the application of Cimarex Energy 3 Company for a non-standard oil spacing and proration unit and compulsory pooling, Chaves County, New Mexico. At this point 5 I will call for appearances. MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin from the Santa Fe law firm of Kellahin and Kellahin, appearing this morning on behalf of the applicant. I have two witnesses to be sworn. 10 EXAMINER EZEANYIM: Are there any other appearances? 11 (No response.) 12 EXAMINER EZEANYIM: Okay. May the witnesses stand 13 up, state your full name, and be sworn. State your name, 14 first. 15 MR. TRESNER: Hayden Tresner. 16 MR. WORTHINGTON: Ralph Worthington. 17 (Witnesses sworn.) EXAMINER EZEANYIM: Mr. Kellahin? 18 19 MR. KELLAHIN: Thank you, Mr. Examiner. The first 20 witness this morning is Mr. Hayden Tresner. Mr. Tresner is a petroleum landman for Cimarex. 21 22 23 24 25

- 2 (Sworn, testified as follows:)
- 3 DIRECT EXAMINATION
- 4 BY MR. KELLAHIN:

1

- Q. Mr. Tresner, for the record, sir, will you please
- 6 state your name and occupation?
- 7 A. My name is Hayden Tresner. I'm a landman at Cimarex
- 8 Energy Company in Midland, Texas.
- 9 Q. On prior occasions have you testified before the
- 10 Examiner and had your qualifications as a landman accepted
- 11 and made a matter of record?
- 12 A. Yes.
- Q. Pursuant to your employment by Cimarex, were you the
- 14 landman responsible for determining the ownership in each of
- 15 these four 40-acre tracts?
- 16 A. Yes.
- 17 Q. As part of your -- as part of your work did you
- 18 attempt to consolidate, on a voluntary basis, the various
- 19 interest owners to participate in the drilling of this well?
- 20 A. Yes.
- 21 Q. Are the land exhibits that we are about to present
- 22 exhibits that you are familiar with or that were generated by
- 23 you?
- 24 A. Yes.
- MR. KELLAHIN: We tender Mr. Tresner as an expert

- 1 petroleum landman.
- 2 EXAMINER EZEANYIM: So qualified.
- Q. Mr. Tresner, let's turn to what is marked as Exhibit
- 4 Number 1. Let's take a moment and orient the Examiner as to
- 5 what your project is. First of all, in this nine-section
- 6 plat, identify for the Examiner the 160-acre tract that you
- 7 are trying to consolidate for the spacing unit.
- 8 A. This is a land plat with a 160-acre non-standard
- 9 spacing unit we are seeking, highlighted in yellow. It is
- 10 comprised of the south half of the north half of Section 3,
- 11 Township 15 South, Range 31 East, Chaves County, New
- 12 Mexico.
- Q. As part of that consolidation, does this 160-acre
- 14 proposed spacing unit consist of multiple tracts?
- 15 A. Yes. It consists of three different mineral tracts.
- 16 Q. The consolidation will be for the purpose of
- 17 drilling what type of well?
- 18 A. A 160-acre laydown Lower Abo Wolfcamp well.
- 19 Q. As part of that process, have you prepared an
- 20 application for permit to drill and filed it with the
- 21 appropriate regulatory agency?
- 22 A. Yes, we have.
- Q. Let's turn to what is marked as Exhibit Number 2,
- 24 Mr. Tresner, and identify for us what we are looking at when
- 25 we look at the first page of this APD.

- 1 A. Exhibit 2 is a copy of the APD that's been filed
- with the BLM. We are still waiting on final approval, which
- 3 we should have in the very near future.
- Q. Let's turn to Page 2 of that exhibit and look at the
- 5 Form C-102 for a moment. When you look at that form, would
- 6 you find the starting point, the surface location for the
- 7 proposed well?
- 8 A. Yes. The -- the surface location for the proposed
- 9 well was 2135 from the north line, 170 foot from the east
- 10 line of Section 3, 15-31.
- 11 Q. And the plan for the well then is to start at this
- 12 location and drill down, get into the top of the Abo and the
- 13 Wolfcamp and then drill horizontally to an end point over in
- 14 Tract E of Section 3?
- 15 A. Yes.
- Q. Are you familiar with the horizontal rules currently
- in place with the Division?
- 18 A. Yes.
- 19 Q. The surface location of this well would not be
- 20 standard at its surface location when you start?
- 21 A. That is correct.
- Q. But by the time you get into the reservoir and find
- 23 your point of production, you will be at a standard
- 24 location?
- A. We will be 330 off the east.

- 1 EXAMINER EZEANYIM: Excuse me. Let me interrupt you
- here for a moment. We -- we had a horizontal well rule last
- 3 week. I hope you are not referring to that, because it is
- 4 not yet --
- 5 MR. KELLAHIN: No, no.
- 6 EXAMINER EZEANYIM: You are referring to the current
- 7 rule?
- 8 MR. KELLAHIN: Yes, sir. Mr. Hayden was at that
- 9 hearing last week.
- 10 EXAMINER EZEANYIM: Oh, he was?
- MR. KELLAHIN: So we are talking about the existing
- 12 rules before the new rules are --
- 13 EXAMINER EZEANYIM: There is no new rule is adopted.
- 14 We hope it will be, but currently we use the current rule
- 15 right now. I hope that's what you are talking about.
- MR. KELLAHIN: Yes, sir.
- Q. So when you get into the reservoir, the drilling and
- 18 producing people are going to control the wellbore in such a
- 19 way that it will not have open to the reservoir anything that
- 20 would be at an unorthodox location?
- 21 A. That's correct.
- Q. And then Page 3 of Exhibit 2 is another locator map,
- 23 is it not?
- EXAMINER EZEANYIM: In fact, Mr. Kellahin, one of
- 25 the questions I had was the entry point, and then going back

- 1 to the current rule, what is your entry point into the
- 2 Wolfcamp here?
- THE WITNESS: The entry point into the top of the
- 4 Lower Abo Formation would be -- would be 2145 from the north
- 5 line and 458 from the east line.
- 6 EXAMINER EZEANYIM: Okay.
- 7 THE WITNESS: The OEC, the beginning production
- 8 zone, it's the middle text block in the southern part of the
- 9 plat.
- EXAMINER EZEANYIM: So, anyway, so I can answer that
- 11 question. So your entry point, your terminus -- I mean, your
- 12 production location is standard, then, right? It's a
- 13 standard location?
- 14 THE WITNESS: Yes, sir.
- 15 EXAMINER EZEANYIM: Okay. Go ahead.
- Q. Mr. Tresner, let's turn to Exhibit Number 3. Is
- 17 this an exhibit that you prepared?
- 18 A. Yes, it is.
- 19 Q. Before we talk about the details, describe for us
- 20 how you organized Exhibit 3.
- A. I've -- I've organized Exhibit 3 based on the
- 22 mineral tracts, and the mineral tracts included in our
- 23 proposed 160-acre spacing unit. We are dealing with three
- 24 separate lease tracts. Tract 1, you can see I've -- I've
- 25 blocked it off and then set forth the ownership down at the

- 1 bottom, and I have done that for Tract 1, Tract 2 and Tract
- 2 3. And it just shows a breakdown of the working interest by
- 3 tract. And then at the bottom I have broken it down to show
- 4 the working -- the working interest in the proposed spacing
- 5 unit, the unit working interest.
- Q. At the very bottom, then -- at the very bottom,
- 7 then, you have some -- the percentages that each of these
- 8 parties would have in the entire 160-acre spacing unit?
- 9 A. That's correct.
- 10 Q. If you look above that, you can see their interest
- 11 broken out for each of the two tract areas?
- 12 A. Each of the three tract areas, yes, correct.
- Q. When you look at the summary, then, identify for us
- 14 which parties or entities have not yet agreed to
- 15 participate?
- 16 A. The only two individuals that we do not have
- 17 commitments from, we have not done a deal with them or they
- 18 have not signed our operating agreement is Clare Fraser, she
- 19 is the third owner down, and, following her, the fourth --
- 20 the fourth owner that's listed, Sigyn Lund, she is
- 21 uncommitted as well.
- 22 EXAMINER EZEANYIM: Who is that?
- 23 THE WITNESS: Clare Fraser, the third one down, and
- 24 then the fourth one down is Sigyn Lund, those are the two
- 25 individuals that we are seeking to pool.

- 1 EXAMINER EZEANYIM: Were you able to locate them?
- THE WITNESS: Yes, we were.
- 3 EXAMINER EZEANYIM: They don't want to participate?
- 4 THE WITNESS: It doesn't appear so.
- 5 EXAMINER EZEANYIM: Okay. Go ahead.
- Q. If you will set Exhibit 3 aside for a moment, let's
- 7 turn to Exhibit 4. When this application was first filed,
- 8 does Exhibit 4 represent the list of parties that had not yet
- 9 come to a voluntary agreement with Cimarex?
- 10 A. Yes, that's correct. At the time this was filed,
- 11 these owners were -- were not committed to participating in
- 12 the well nor had done a deal with us.
- Q. And as of this morning we are down to the two
- 14 individuals that have not yet agreed to participate?
- 15 A. That's correct. These two individuals, Sigyn Lund
- 16 and Clare Fraser, represent 1.25 percent of the proposed
- 17 spacing unit.
- 18 Q. Let's turn now to your proposal for drilling this
- 19 well. You have a letter that you sent to the various parties
- 20 to be pooled?
- 21 A. Yes. Exhibit --
- Q. How is that marked? Is that marked as an exhibit?
- A. Yes. Exhibit 5 is the letter that we sent to all
- the working interest owners of the three tracts.
- Q. Is that your first letter for this project?

- 1 A. This was the letter that went out to the working
- 2 interest owners, yes.
- Q. This is the first of this type of letter for this
- 4 project?
- 5 A. That's correct.
- Q. Included with this letter, did you provide these
- 7 parties with an accurate estimate of well costs?
- 8 A. Yes, we did.
- 9 Q. In addition, have you provided parties with a
- 10 proposed joint operating agreement?
- 11 A. We did, yes. The original packet contained the well
- 12 proposal letter, the estimated cost of drilling to complete
- 13 the well, and our proposed form of operating agreement.
- Q. Have you had some of the parties involved in this
- 15 spacing unit sign and approve your joint operating agreement?
- 16 A. Yes. The parties that are listed on Exhibit 3 as
- 17 participating have -- have signed their operating
- 18 agreement.
- 19 Q. As part of signing that operating agreement, what
- 20 overhead rates have they agreed to use under the terms of
- 21 that contract?
- 22 A \uparrow \$7,000 for a drilling well rate, and \$700 for
- 23 producing.
- Q. Are those --
- 25 EXAMINER EZEANYIM: How much for producing?

- 1 THE WITNESS: \$700 for producing, 7,000 for
- 2 drilling.
- 3 EXAMINER EZEANYIM: Okay.
- Q. Are those the rates you recommend to the Examiner to
- 5 be included in the pooling order to be issued in this case?
- 6 A. Yes.
- 7 Q. In your opinion, are those rates fair and
- 8 reasonable?
- 9 A. Yes.
- 10 Q. Do you utilize a COPAS escalator with regards to
- 11 those costs?
- 12 A. We do, yes.
- Q. And you would ask the Examiner to include an
- 14 escalator procedure in the pooling order?
- 15 A. Yes, we would.
- Q. Have the parties that have signed the joint
- operating agreement also agreed to the AFE?
- 18 A. They have signed the AFE, yes. They have approved
- 19 the AFE.
- 20 Q. Have any of those parties objected either to the
- 21 location, your operatorship of the clause, or the joint
- 22 operating agreement?
- A. No, they have not.
- Q. Do you have a copy in the proposed exhibits of
- 25 the -- of the estimated cost of expenditures for this

- 1 wellbore?
- A. Yes. Exhibit 6 sets forth the estimated cost to
- 3 drill and complete the -- the proposed well.
- 4 Q. Is Exhibit 6 the form that you included with your
- 5 well proposal letter in June 20 of this year?
- A. That's the AFE that was included in the well
- 7 proposal package.
- 8 Q. To the best of your knowledge, is this AFE accurate
- 9 and correct?
- 10 A. Yes.
- 11 Q. Is this the AFE that you propose to have the
- 12 Examiner adopt so far as necessary for purposes of the
- 13 pooling order?
- 14 A. Yes.
- 15 Q. Let's turn to the topic of notifications,
- 16 Mr. Tresner. Would you turn with me to what is marked as
- 17 Exhibit Number 7. This is an affidavit from Mr. Bruce
- 18 attesting to notifications. Would you thumb through that for
- 19 me and make sure, to the best of your knowledge, that the
- 20 parties that you are seeking a pooling order against today in
- 21 fact received notice of this hearing?
- 22 A. On Page 3 of Exhibit 7, Sigyn Lund and both Clare
- 23 Fraser are listed as people being notified of this hearing.
- Q. In addition, now would you turn to Exhibit Number 8.
- 25 Has Mr. Bruce prepared for you a list of the offset operators

- 1 and interest owners that have joined the non-standard
- 2 proration unit, 160-acre spacing unit?
- 3 A. Yes.
- 4 Q. To the best of your knowledge, is this tabulation on
- 5 Exhibit 8 correct?
- 6 A. Yes, it is.
- 7 Q. Would you turn now to Exhibit Number 10. Would you
- 8 review Exhibit Number 10 with me and determine whether or
- 9 not, in your opinion, the appropriate offset interest owners
- 10 were notified of the non-standard proration unit for this
- 11 case?
- 12 A. I have either misplaced or am missing Exhibit 10.
- Q. I'm sorry, I misspoke. It's 9.
- 14 A. That's the affidavit that was filed by James Bruce,
- 15 our attorney. The notice letter that was sent to the
- 16 Division and the offset operators are listed on Exhibit 8.
- 17 They both received the notice.
- 18 Q. At this point, Mr. Tresner, can you conclude that
- 19 it's reasonable and fair to have a forced pooling order
- 20 entered against the remaining parties?
- 21 A. Yes, I believe it is.
- 22 Q. In your opinion, is it necessary in order to prevent
- 23 waste and to protect correlative rights?
- 24 A. Yes, it is.
- MR. KELLAHIN: Mr. Examiner, that concludes my

- 1 examination of Mr. Tresner. We move the introduction of his
- 2 Exhibits 1 through 9.
- 3 EXAMINER EZEANYIM: Thank you very much. Exhibits 1
- 4 through 9 will be admitted.
- 5 (Exhibits 1 through 9 admitted.)
- 6 EXAMINER EZEANYIM: Okay. Let's go to your
- 7 application. That appears to me, as a land person, I'm going
- 8 to ask you this -- maybe a geologist coming up or
- 9 something -- you are doing two pooling provisions, one, you
- 10 are pooling that one 40-acre from the top of the Abo Wolfcamp
- 11 to the surface, then you are pooling the Abo -- I mean the
- 12 Wolfcamp, really, or your horizontal well, are you still
- asking me to pool you on that well, on that 40-acre unit?
- 14 THE WITNESS: No. We are asking you to unitize or
- 15 pool the Lower Abo slash Wolfcamp Formation under our
- 16 proposed 160-acre spacing unit.
- 17 EXAMINER EZEANYIM: Okay. Now, are you
- 18 withdrawing --
- 19 THE WITNESS: Those intervals only.
- 20 EXAMINER EZEANYIM: Okay. Now, are you withdrawing
- 21 the first request? And, okay, if I can read the first
- 22 request because I want to know, are you going to go ahead
- 23 with that? It says -- let me see -- from the surface -- you
- 24 can see "i" -- from the surface to the top of the Abo
- 25 Wolfcamp Formation underlying that southeast northeast

- 1 quarter, the 40 acre, the northeast quarter where you are at,
- 2 where the well -- you want me to pool from the surface to the
- 3 top of the Abo Wolfcamp Formation, do you still want that to
- 4 be done or not?
- 5 THE WITNESS: If that's what was requested in the
- 6 original -- the application that's been filed by James Bruce,
- 7 yes.
- 8 EXAMINER EZEANYIM: Okay. Well, that will take care
- 9 of a lot of questions there. So you see you are asking me to
- 10 do that. And the second one, "ii," you want to pool that,
- 11 which that 160 acre is from -- the proration unit, then we
- 12 can pool it, but I'm concerned about it on a vertical well.
- MR. KELLAHIN: Mr. Examiner, I checked with the
- 14 geologist. It's not necessary to pool that 40-acre tract
- from the shallower zones, so we will withdraw that portion.
- 17 because one of the -- you have any targets above the -- on
- 18 those shallow formation right now, because the way it works,
- 19 I think I have to say it again, is that if you have -- I
- 20 think what people do is when they come to hearing, they want
- 21 to get it all, but if you are going to take money from people
- 22 who participate in that shallow zone and keep it for ten
- 23 years before you go, then I don't think it's right. I think
- 24 the best thing to pool for is a horizontal well in that unit.
- 25 And now, if you -- if you want to complete uphole, say you

- 1 want to go uphole to some zone which is up uphole of the Abo
- 2 and the Wolfcamp, then at that point you can still come back
- 3 and get a compulsory pooling hearing.
- 4 MR. KELLAHIN: Yes, sir. That's exactly what we're
- 5 trying to do.
- 6 THE WITNESS: I might have confused things.
- 7 EXAMINER EZEANYIM: Right now I don't think the
- 8 Division would allow you to compulsory pool that vertical
- 9 well, collect money and keep it there for 20 years. I don't
- 10 think it's right. That's what -- if you collect it and
- 11 you're not doing any completions above that formation.
- MR. KELLAHIN: We are withdrawing that,
- 13 Mr. Examiner.
- 14 EXAMINER EZEANYIM: That makes my job easier. It
- 15 makes everything easier. At this point I wanted to bring it.
- 16 It's better to clear it before we proceed. Okay. Let me see
- 17 if I have any more land questions to ask you since you are --
- 18 I can ask you, as a land person, are there any vertical wells
- 19 on that 160 acre, are there currently any vertical wells
- 20 producing from the Wolfcamp?
- THE WITNESS: No, sir.
- 22 EXAMINER EZEANYIM: There are no vertical wells
- 23 there?
- 24 THE WITNESS: There are no vertical wells producing
- 25 from the Wolfcamp Formation on that 160-acre spacing unit.

- 1 EXAMINER EZEANYIM: Okay. Very good. And you
- 2 already answered this question. Okay. You may step down.
- 3 You made my job by withdrawing that compulsory pooling.
- 4 THE WITNESS: Thank you.
- 5 MR. KELLAHIN: Mr. Examiner, the geologic witness
- 6 for Cimarex is Ralph Worthington.
- 7 EXAMINER EZEANYIM: Okay.
- 8 MR. KELLAHIN: Give Mr. Worthington just a moment to
- 9 get settled in.
- 10 EXAMINER EZEANYIM: Mr. Worthington, you have
- 11 already been sworn in, so you are under oath.
- MR. KELLAHIN: Mr. Examiner, Mr. Worthington's
- 13 exhibit is Exhibit Number 10, and it's the color copy.
- 14 RALPH WORTHINGTON
- 15 (Sworn, testified as follows:)
- 16 DIRECT EXAMINATION
- 17 BY MR. KELLAHIN:
- Q. Mr. Worthington, for the record, sir, would you
- 19 state your name and occupation?
- 20 A. My name is Ralph Worthington. I am the regional
- 21 geologic manager for Cimarex Energy Company in Midland,
- 22 Texas.
- Q. On prior occasions have you testified before the
- 24 Division's Examiners?
- 25 A. Yes, I have.

- Q. And as part of your responsibilities, are you
- 2 knowledgeable about the geology and drilling of this proposed
- 3 Boxer 3 Federal Com Number 1 Well?
- 4 A. Yes, sir.
- 5 Q. Is the -- is the geologic map we are about to review
- 6 a work product that you have generated?
- 7 A. Yes, sir.
- 8 Q. And based upon, based upon this exhibit and your
- 9 studies, do you have expert opinions with regards to the
- 10 formation of a non-standard proration unit?
- 11 A. Yes, sir.
- MR. KELLAHIN: We tender Mr. Worthington as an
- 13 expert petroleum geologist.
- 14 EXAMINER EZEANYIM: So qualified.
- 15 Q. Mr. Worthington, before we get into the exhibit,
- 16 let's take a moment and divide this into pieces. First of
- 17 all, describe for us generally the type of map that you are
- 18 looking at.
- 19 A. This is a map that shows the -- the thickness of the
- 20 porosity interval within our target zone in the Lower Abo
- 21 Wolfcamp Formation. It's -- it is a contour map, and it goes
- 22 from about zero to 30 feet. Data points are identified in
- 23 the blue lettering below each data point.
- Q. Let's take a moment and talk to the Examiner about
- 25 how you have utilized this map for several things. First of

- 1 all, let's talk about the color code for the horizontal
- 2 wells. When we look at the Boxer 3 in the south half of the
- 3 north half of 3, it is a -- it's a light orange color?
- 4 A. Orange-reddish, yes.
- 5 Q. That color represents what, sir?
- A. That is a planned well to be drilled.
- 7 Q. Have you displayed on this exhibit other horizontal
- 8 wells that have that color code?
- 9 A. Yes. Over in Section 4 and Section 9 are three
- other locations that have been identified as potential
- 11 locations that have permits to drill.
- 12 Q. Also on the map are horizontal wells that have a
- 13 different color code. There are some over in 2 and 11 that
- 14 are coded with a green color?
- 15 A. Yes.
- Q. What does the green represent?
- 17 A. The green represents wells that are operated by
- 18 Cimarex Energy Company.
- 19 Q. And then last there is some horizontal wellbores
- 20 located on here using a purple color?
- 21 A. Yes, sir.
- Q. And what do those represent?
- A. Those colors represent wells producing from the
- 24 or drilled to the Wolfcamp Abo that are operated by other
- 25 companies other than Cimarex Energy Company.

- 1 Q. I also see displayed on the isopach there is an
- 2 overlay of a structural component?
- A. That's correct.
- 4 Q. And describe for the examiner how he is going to see
- 5 your structural lines on this map.
- A. The structure lines here are represented by the gray
- 7 lines. The contour interval for that is 100 feet. That
- 8 contour interval represents the top of the Wolfcamp Formation
- 9 or the base of the Lower Abo producing zone.
- 10 Q. There are three of those, and they are very lightly
- 11 shaded in gray?
- 12 A. That's correct. And in the top left corner you see
- 13 a minus, a subsurface value of minus 4200, and the dip is to
- 14 the east, southeast at about 100 feet per mile.
- 15 Q. Let me ask you the conclusion about the structure.
- 16 Does structure play any kind of significance for you in
- 17 determining either risk or the consolidation of tracts for
- 18 the 160-acre spacing unit?
- 19 A. Generally not.
- Q. In this case it did not?
- 21 A. It did not.
- Q. Let's look in the area, there's a well in 35 that
- 23 says "Marshal and Winston"?
- 24 A. Yes, sir.
- Q. What's the status of that wellbore?

- 1 A. That well is plugged and abandoned. It was drilled
 - 2 vertically down into the Lower Abo. They drilled a lateral
- 3 to the east and plugged the well without attempting a
- 4 completion.
- 5 Q. Do you have --
- 6 EXAMINER EZEANYIM: Is that in the Wolfcamp?
- 7 THE WITNESS: Yes.
- 8 EXAMINER EZEANYIM: On Section 35?
- 9 THE WITNESS: In Section 35, yes, that was drilled
- 10 and plugged without attempting to --
- 11 EXAMINER EZEANYIM: When was that well drilled?
- THE WITNESS: When?
- 13 EXAMINER EZEANYIM: Yeah, when.
- 14 THE WITNESS: I'm not exactly sure of the date, but
- 15 it was approximately, I would guess, in the 2007 --
- 16 EXAMINER EZEANYIM: Okay.
- 17 THE WITNESS: -- 2008 time frame.
- 18 EXAMINER EZEANYIM: And they never produced
- 19 anything?
- 20 THE WITNESS: That's correct.
- 21 EXAMINER EZEANYIM: Even on the horizontal well?
- 22 THE WITNESS: That's correct.
- 23 EXAMINER EZEANYIM: Do you know who drilled this?
- 24 THE WITNESS: The company is Marshal and Winston.
- 25 EXAMINER EZEANYIM: Okay

- Q. When you're -- that well is interesting to you as a
- 2 geologist because you are looking for data points to tell you
- 3 the thickness of the Abo Wolfcamp that's your target zone?
- 4 A. That's correct.
- 5 Q. Were you able to obtain from any source the
- 6 thickness component realized from drilling that well?
- 7 A. Not with any degree of certainty.
- 8 Q. So what have you done in terms of your isopach in
- 9 deciding where a zero line would be?
- 10 A. Well, we do know that they plugged the well without
- 11 completing it. We do know that they had very thin shows
- 12 within the interval of interest. They were not able to
- 13 obtain a porosity log in that well. They were able to obtain
- 14 a resistivity log only. And we know from comparing it to our
- 15 other resistivity logs in this area that the zone is either
- 16 very thin or absent in that well. So from that I have
- 17 indicated on here that there may be a trace of porosity, but
- 18 I don't have any way to measure that directly.
- 19 Q. As we move south, then, you are going to get to a
- 20 data point for the Wasp 2 State Number 3 Well. I see 33
- 21 feet.
- 22 A. Yes.
- 23 Q. That's a wellbore that Cimarex drilled?
- 24 A. Yes.
- 25 Q. Give us an understanding of how the data is gathered

- 1 from these horizontal wells. If you are looking for a
- 2 thickness component for which to do calculations and
- 3 construct maps, how do you achieve that in a horizontal
- 4 wellbore?
- 5 A. We did it through the vertical well that we drill,
- 6 and then by running porosity and resistivity logs we are able
- 7 to calculate with some -- some standard cutoffs for net
- 8 porosities and then sum that total within the producing
- 9 interval.
- 10 Q. As the well then is drilled horizontally from that
- 11 entry point, do you continue to have data from which you can
- 12 get values about thickness of your -- your target zone?
- 13 A. No, sir.
- Q. So for that entire lateral extent of the horizontal
- 15 wellbore you have one data point?
- 16 A. That's correct.
- Q. So as you move farther away from your entry point,
- 18 you simply don't have data as to what the reservoir thickness
- 19 is for your target?
- 20 A. That's correct.
- Q. When we look at the 35 feet and go north to the
- 22 Marshal and Winston, you have drawn in some contour lines. I
- 23 assume that you have no controls for those lines?
- A. That's right. They are just basically equal spaced
- 25 between the Wasp 2 State Number 3 and the Marshal and Winston

- 1 Well just to reflect a thinning of the porosity interval.
- Q. Let's do something. If you start at the Wasp Well
- 3 with the 33 feet and follow the 30 foot contour line, it
- 4 continues to the west and then goes down to the southwest and
- 5 you keep going along that line until you get down to the
- 6 south half of Section 9.
- 7 A. That's correct.
- 8 Q. At some point in that process do you get another
- 9 data point?
- 10 A. Only at that point in the southwest quarter of
- 11 Section 9 is the only data point for that contour.
- 12 Q. And what was that number?
- 13 A. That was 29 feet.
- Q. And using those two numbers then you have displayed
- 15 this configuration of what appears to be the isopach of the
- 16 top of the Wolfcamp?
- 17 A. That's correct.
- 18 Q. When you look at the south half of the north half of
- 19 the proposed spacing unit, Mr. Tresner has subdivided this
- 20 into the three tracts, and you can see visually how those are
- 21 divided among the spacing unit?
- 22 A. Yes.
- Q. Based upon the data that you now have, is it
- 24 possible to apportion a relative share to the 40-acre tracts
- on anything other than a straight acreage basis?

- 1 A. I don't believe so, no.
- Q. If you hypothecate at the point of entry for the
- 3 Boxer 3 1 Well, and say it's like the Wasp 2, 3, that you are
- 4 going to get about 33 feet --
- A. Yes, that's what we believe.
- 6 Q. -- you would have that value at the entry point for
- 7 thickness, but as you move to the west you have no other
- 8 value for thickness?
- 9 A. That's correct.
- 10 Q. It would not be possible to generate any reliable
- 11 net pay isopach or volumetric calculation or some kind of
- 12 full volume calculation to apportion recoverable oil per
- 13 tract?
- 14 A. That is right. We cannot do that.
- 15 Q. So coming back to the conclusion, then, the science
- 16 available for horizontal wells doesn't give you the option to
- 17 apportion relative share of production to individual
- 18 tracts?
- 19 A. That's correct.
- 20 Q. You have to do it on a straight-acreage basis?
- 21 A. Yes.
- Q. And you think that's fair and reasonable?
- 23 A. Yes.
- MR. KELLAHIN: That concludes my examination of Mr.
- 25 Worthington. We move the introduction of his Exhibit

- 1 Number 10.
- 2 EXAMINER EZEANYIM: Exhibit 10 will be admitted.
- 3 (Exhibit 10 admittted.)
- 4 EXAMINER EZEANYIM: Thank you for that clarification
- 5 that you are making. That eliminates some of my questions
- 6 with those answers. Why did you include that Marshal and
- 7 Winston Well that is non-productive, why did you put it in
- 8 your testimony?
- 9 THE WITNESS: Well, I have to have that there as a
- 10 data point because it did penetrate the formation.
- 11 EXAMINER EZEANYIM: Okay. Now, if you did penetrate
- 12 the formation, that means that we have -- it appears to me
- 13 that you don't drill a horizontal well as a Wildcat, right,
- 14 do you?
- THE WITNESS: I'm sorry, would you ask that again?
- 16 EXAMINER EZEANYIM: Do you drill a horizontal well
- 17 as a Wildcat well?
- 18 THE WITNESS: We don't consider this necessarily a
- 19 Wildcat well because we are --
- 20 EXAMINER EZEANYIM: I'm not talking about yours.
- 21 I'm talking about that, because I asked you why you included,
- 22 and you say, "Well, I want to include to show a data point,"
- 23 which I appreciate you did that because I might have to go
- 24 out and find an API and see why that well was drilled. Your
- 25 well currently you are going to drill vertical is more than

- 1 \$5 million. That well may be as much, if you attempt it, but
- 2 now is wet.
- 3 So my point is -- and then that would bring us to
- 4 intention -- the intention to drill horizontal wells. So if
- 5 that well is wet, it's not produced anything, I begin to
- 6 wonder whether you have geologist and engineers who advised
- 7 them not to drill that well because it's not going to produce
- 8 anything. Before you drill a well, a horizontal well, you
- 9 must have the data point which you are doing here. I'm not
- 10 criticizing you. I'm just happy that that well was drilled
- and it didn't produce anything. It's not something wrong
- 12 with you, you know, don't get me wrong. But when you said
- 13 it's non-productive, it could have been non-productive
- 14 because it could have gotten data to demonstrate that they
- 15 were going to get something.
- Now, if you have data demonstrating you are going to
- 17 get something, then we wonder here, because now you're
- 18 relying here on those wells along the east west horizon, is
- 19 that really the real orientation? Do you see what I'm
- 20 saying?
- 21 THE WITNESS: Uh-huh.
- 22 EXAMINER EZEANYIM: Could that have changed to north
- 23 south, you know, because to approve any project area, we want
- 24 to strike the most productive, you know, zone of that pool.
- 25 If the east west is not going to do it, maybe we try north

- 1 south. Depends on the lenticular of the pool, and that would
- 2 be the work of the geologist to determine that.
- 3 THE WITNESS: That's correct.
- 4 EXAMINER EZEANYIM: It's also the work of the
- 5 engineers to find out offsets, whether, you know, if you
- 6 drill a \$10 or \$5 million well, are you going to be
- 7 productive. And that well -- one of the questions I'm going
- 8 to ask you, why are we going east west? And that is really
- 9 tantamount to why that project area could be approved.
- 10 Because if the project area is not approved, they are no
- 11 compulsory pooling going on, we don't approve the project
- 12 area before we consider the compulsory pooling as part of the
- 13 application.
- So that's why when you say that was non-productive,
- 15 I begin to wonder -- working as an engineer to drill that
- 16 well in that section, I will make sure that I was going to
- 17 get something, because to advise my client to do \$5 million
- 18 and don't get anything -- so I don't know, I hope it's not.
- Then that brings us, you have this green, I'm very
- 20 color blind, you want to operate this one in green.
- THE WITNESS: Yes.
- 22 EXAMINER EZEANYIM: Okay. You are producing them
- 23 now from the Wolfcamp?
- 24 THE WITNESS: Yes.
- 25 EXAMINER EZEANYIM: Are they productive?

- 1 THE WITNESS: Yes.
- 2 EXAMINER EZEANYIM: How prolific are they?
- 3 THE WITNESS: Very prolific. On the order of 600 to
- 4 800 barrels a day on initial production.
- 5 EXAMINER EZEANYIM: Okay, very good. But that one
- 6 on that 5 -- of course on that -- but the way you have been
- 7 drilling at all in that 5, because they are not in there,
- 8 they are part of the Wolfcamp, right?
- 9 THE WITNESS: It was a very risky well to drill.
- 10 They did step out quite a way from existing production, and I
- 11 believe that it was based on their lease ownership, that was
- 12 as close as they could get to existing production. And there
- 13 was no other data for them to say yes or no, so it was a very
- 14 risky location for them to drill.
- 15 EXAMINER EZEANYIM: Well, that's a commercial waste.
- 16 I'm not -- well, I don't know if I'm supposed to prevent
- 17 commercial waste. I'm supposed to prevent hydrocarbon waste,
- 18 and they didn't find any so they lost the money?
- 19 THE WITNESS: They did.
- 20 EXAMINER EZEANYIM: Now, let's go to your
- 21 orientation. The orientation I can see across the way you
- 22 indicated on this isopach, and you really cut most of the
- 23 well for the horizontal well east west?
- 24 THE WITNESS: Yes.
- 25 EXAMINER EZEANYIM: And you told me that all are

- 1 prolific. You don't know -- other operators, I'm assuming
- 2 that they drill wells, too?
- 3 THE WITNESS: They are. This is a very good area in
- 4 this formation, very good production rates for all of the
- 5 wells here.
- 6 EXAMINER EZEANYIM: Excellent. Okay. I know this,
- 7 that we ask to see, do we actually approve your non-standard
- 8 spacing unit under the current rule. Under the proposed rule
- 9 it might be different. I hope you were here last week when
- 10 we were presenting that to the Commission, but I'm hoping
- 11 that when the new rule is approved it's going to make your
- 12 job lighter. But one of the questions I'm going to ask, I'm
- 13 going to ask this question to the engineer is, why are you
- 14 going that east west? And your attorney said that on this
- 15 map here, that's why you are doing that, so that's my
- 16 question.
- 17 Let me see if I have any other questions here.
- 18 Okay. Now, I see the fracs in that project area, and then I
- 19 know they are acreage basis, right?
- THE WITNESS: Yes.
- 21 EXAMINER EZEANYIM: Has to be on acreage, not on the
- 22 project?
- THE WITNESS: That's right.
- 24 EXAMINER EZEANYIM: Anyway, that concludes my --
- 25 MR. KELLAHIN: Thank you, Mr. Examiner. That