- 1 EXAMINER BROOKS: At this time we will
- 2 call Case Number 14661, application of OGX Resources,
- 3 LLC, for approval of a nonstandard oil spacing and
- 4 proration unit and compulsory pooling, Eddy County, New
- 5 Mexico. This case was reopened.
- 6 Call for appearances.
- 7 MR. BRUCE: Mr. Examiner, Jim Bruce of
- 8 Santa Fe representing the applicant. I have two
- 9 witnesses.
- 10 EXAMINER BROOKS: Very good. Would you
- 11 have the witnesses sworn, please?
- 12 (Two witnesses were sworn.)
- 13 EXAMINER BROOKS: Any other appearances?
- MR. BRUCE: Mr. Examiner, if you will
- 15 recall, you heard this case originally.
- 16 EXAMINER BROOKS: I did.
- MR. BRUCE: And the compulsory pooling was
- 18 sought for a well unit essentially comprised of five
- 19 quarter/quarter sections which crossed the section line.
- 20 The application was denied, I think, essentially because
- it contained five quarter/quarter sections, rather than
- 22 what has, in most areas, become standard, four
- 23 quarter/quarter sections across the section line.
- 24 EXAMINER BROOKS: Yeah. I believe two
- 25 factors were involved in the denial. One was that it

- 1 included five, rather than four quarter/quarter sections
- 2 and consequently crossed a section line. The other being
- 3 that one quarter/quarter section within the section in
- 4 which three of the quarter/quarter sections were located
- 5 was omitted, and for reasons that were not explained at
- 6 the time of the original hearing.
- 7 MR. BRUCE: We are here today to explain
- 8 why we think the application should be granted and why no
- 9 one will be harmed by the formation of the units in these
- 10 two sections.
- 11 EXAMINER BROOKS: Very good. You may
- 12 proceed.
- 13 GARLAND LANG
- 14 Having been first duly sworn, testified as follows:
- 15 DIRECT EXAMINATION
- 16 BY MR. BRUCE:
- 17 Q. Please state your name and city of residence.
- 18 A. Garland Lang, Midland, Texas.
- 19 Q. Who do you work for and in what capacity?
- 20 A. OGX Resources. I'm the land manager.
- Q. Have you previously testified before the
- 22 Division as a landman?
- 23 A. I have.
- Q. And were your credentials as a landman
- 25 accepted as a matter of record?

- 1 A. They were.
- Q. Are you familiar with the land matters
- 3 involved in this case?
- 4 A. Iam.
- Q. And not only this case, but other wells being
- 6 drilled in Sections 30 and 31 of 26 South, 29 East?
- 7 A. I am.
- 8 MR. BRUCE: Mr. Examiner, I tender
- 9 Mr. Lang as an expert petroleum landman.
- 10 EXAMINER BROOKS: So accepted.
- 11 Q. (By Mr. Bruce) Mr. Lang, if you could look at
- 12 Exhibit 1, which is a land plat. I've taken the liberty
- of drawing some rectangles on there. What well are we
- 14 here for today, and what is its location?
- 15 A. It's in the west half/west half of Sections 31
- 16 and 30, save and except for the northwest of Section 30.
- 17 And that's our Copperhead 31 Fee A Number 1H.
- 18 Q. Now, the lines I've denoted are drawn on here.
- 19 There are three dashed lines and two solid lines. Over
- 20 on the east side of these sections is a solid line. What
- 21 well is that?
- A. Copperhead 31 Fed Com Number 1H.
- Q. Has that been drilled?
- A. It's been drilled and completed and producing.
- Q. Was that well the subject of a forced pool

- 1 hearing before the Division?
- 2 A. It was.
- Q. In looking at this, could you describe -- OGX
- 4 owns interests throughout the entire two sections;
- 5 correct?
- 6 A. Correct.
- 7 Q. Could you describe its development plans,
- 8 including the two wells you've just discussed and other
- 9 wells that you believe you will be drilling in the
- 10 future?
- 11 A. Yes. The Copperhead 31 Fee A Number 1H well
- 12 has been drilled, and it's waiting on completion. We've
- 13 got an application, a permit, submitted to the BLM for
- 14 the second well in the east half of 30 and 31, being our
- 15 Copperhead 31 Fed Com Number 2H, which is going to be
- 16 just like where that dotted line is in the west half of
- 17 the east half of those two tracts.
- Then we've got a well planned west of that,
- 19 which will be our Copperhead 31 Fee A Number 2H Well,
- 20 which will be just east of the well that we're trying to
- 21 get approved today.
- And then we've got another well planned that's
- 23 going east/west in the north half/north half of Section
- 30. That will be our Copperhead 30 Fee Number 1H.
- Q. And OGX intends to drill up the entire two

- 1 sections of land?
- 2 A. We do.
- Q. And we'll get some cost factors in a minute.
- 4 But one concern of the Division with this well, with the
- 5 well we're here for today in the west half/west half of
- 6 these sections, it excluded the -- I actually believe
- 7 that's Lot 1, the northwest northwest/northwest quarter
- 8 of Section 30?
- 9 A. Correct.
- 10 Q. Now, in looking at the land ownership here, is
- 11 the northwest quarter of Section 30 a single tract?
- 12 A. Yes.
- Q. And does OGX own interest in that tract?
- 14 A. We own 68 percent of that.
- 15 Q. Over in the northeast quarter of Section 30,
- 16 where there's also already an excluded quarter/quarter
- 17 section, does OGX own -- is that a single tract?
- 18 A. That's a single tract, 160 acres.
- 19 Q. Does OGX own interest in that section?
- 20 A. We own 100 percent of that.
- 21 EXAMINER BROOKS: Just for clarification,
- 22 when you ask, "Is something a single tract," do you mean
- 23 that it's common ownership throughout that tract?
- MR. BRUCE: That's what I'm intending.
- 25 EXAMINER BROOKS: I'm assuming that's what you

- 1 meant.
- Q. (By Mr. Bruce) Can you confirm that,
- 3 Mr. Lang?
- 4 A. Yes, it is common.
- 5 EXAMINER EZEANYIM: Before you continue,
- 6 Mr. Lang, you should be talking to the Bench, not your
- 7 attorney, so we understand what you're saying. Okay?
- 8 Q. (By Mr. Bruce) Mr. Lang, you've just
- 9 testified in that single northeast quarter, which is a
- 10 single tract with uniform ownership, you and your working
- 11 interest partners own 100 percent of the working
- 12 interest?
- 13 A. Correct.
- 14 Q. So when you drilled that first well over on
- 15 the east half/east half of these sections, you weren't
- 16 trying to exclude anybody from that tract?
- 17 A. No.
- 18 Q. And in drilling the well on the west half/west
- 19 half, again, since there's -- you're not trying to
- 20 exclude anybody there also?
- 21 A. No.
- 22 Q. And so when maybe the final well is drilled
- 23 covering the north half/north half of Section 30,
- 24 everyone in these two sections will have interest at
- 25 least in certain wells?

- 1 A. Correct.
- Q. Now, is there also a cost factor in the
- 3 reasons that you are drilling four wells with five
- 4 quarter/quarter sections and then one final well with
- 5 four quarter/quarter sections?
- 6 A. We felt like we'd be eliminating an additional
- 7 well. Instead of drilling six wells, four in Section 30
- 8 and two in 31, that we would be drilling five wells
- 9 instead of six, which based on these exhibits here, our
- 10 two AFEs, one is for a longer lateral.
- 11 Q. The first one, Exhibit 2, is kind of just a
- 12 form AFE for a 160-acre well?
- 13 A. That's right. That would be the AFE for the
- 14 Copperhead 30 Fee Number 1H.
- 15 Q. And what is the completed well cost of that
- 16 well?
- 17 A. Estimated, \$6,128,180.
- 18 EXAMINER BROOKS: Which well are you
- 19 talking about?
- THE WITNESS: The one going east/west in
- 21 the north half/north half.
- Q. (By Mr. Bruce) And then Exhibit 3 is an AFE
- for a five quarter/quarter section well; is it not?
- 24 A. Correct.
- Q. What is the completed well cost?

- A. Completed well cost there is \$6,941,590.
- Q. And then what does Exhibit 4 reflect?
- A. Exhibit 4 is just a comparison if we drilled
- 4 six shorter lateral wells, 160-acre spacing, we'd spend
- 5 \$36,769,080. And if we drill five wells, with one of
- 6 them being a 160-acre proration unit, and four wells with
- 7 the 200 acres or, you know, five 40s, we'd spend
- 8 \$33,894,540. So we have a savings of 2,874,540.
- 9 Q. And that's a substantial cost savings?
- 10 A. Um-hum.
- 11 Q. You do mention here that five 40s -- actually,
- 12 Section 31 is a -- it's not only a short section, the
- 13 bottom tier of that is comprised of small lots; is it
- 14 not?
- 15 A. Correct.
- 16 Q. So these 200-acre well units you're talking
- 17 about are more on the order of 185 acres or so?
- 18 A. Yes. Correct.
- 19 Q. So in summary, there's -- well, look back at
- 20 Exhibit 1 now, Mr. Lang. If at this point -- because two
- 21 wells have already been drilled; correct?
- 22 A. Correct.
- Q. If you then had to, in the future, dedicate
- 24 only 160-acre well units, there would be some excluded
- 25 acreage in the future; correct?

- 1 A. Correct. In Section 31 there would be for
- 2 sure.
- Q. And somewhere along the way, there would be
- 4 excluded acreage?
- 5 A. Yes.
- 6 Q. So again, allowing development to proceed as
- 7 planned will not exclude any interest owner from a well
- 8 or well unit; correct?
- 9 A. No, it will not.
- 10 Q. And it will save pretty close to \$3 million?
- 11 A. Correct.
- Q. And who is the only person being force pooled
- in the well unit at this time?
- 14 A. It's an unleased mineral owner in Lot 2 of
- 15 Section 30, which is in the southwest of the northwest
- 16 quarter, Jo Beth Covin Ware, a small interest.
- 17 Q. And when you -- what is her approximate
- 18 interest in the well unit, 185-acre well unit?
- While you're looking that up, in the first
- 20 case, evidence of your contacts with that interest owner
- 21 was submitted to the Division; correct?
- 22 A. Correct.
- MR. BRUCE: If I may, Mr. Examiner?
- THE WITNESS: Do you have that interest?
- 25 Oh, okay. 1.35575 percent in the unit.

- 1 Q. In the well unit?
- 2 A. Yes, sir.
- MR. BRUCE: Okay. Mr. Examiner, I did
- 4 send notice of the reopened case to Ms. Ware, and that is
- 5 submitted as Exhibit 5, and she did receive actual
- 6 notice.
- 7 Since I had given notice previously to the
- 8 offsets, I didn't send notice again to the offsets
- 9 because no offset objected.
- 10 EXAMINER BROOKS: Right. I think that's
- 11 appropriate.
- 12 Q. (By Mr. Bruce) Were Exhibits 1 through 4
- 13 prepared by you or under your supervision?
- 14 A. They were.
- 15 Q. And in your opinion, is the granting of this
- 16 application in the interest of conservation and the
- 17 prevention of waste?
- 18 A. It is.
- 19 MR. BRUCE: Mr. Examiner, I move the
- 20 admission of Exhibits 1 through 4, plus my notice
- 21 affidavit, Exhibit 5.
- EXAMINER BROOKS: Okay. Exhibits 1
- 23 through 5 will be admitted.
- 24 (Exhibits 1 through 5 were admitted.)
- MR. BRUCE: I have no further questions of

- 1 the witness.
- 2 EXAMINER BROOKS: Mr. Ezeanyim, do you
- 3 have any questions?
- 4 EXAMINATION
- 5 BY EXAMINER EZEANYIM:
- 6 Q. Let's go to Exhibit 4. I'm trying to
- 7 understand what you're trying to demonstrate, Mr. Lang.
- 8 Could you explain that to the Examiners what
- 9 you are trying to do there? How many of these wells are
- 10 on five units?
- 11 A. Four wells on --
- 12 Q. What are those four that are currently on five
- 13 units? Where are those here on this analysis?
- 14 A. Wells 2, 3, 4 and 5.
- Q. Okay. Are they all in the same section?
- 16 A. They're in Sections 30 and 31 north/south.
- 17 Q. Okay. Now, which among those wells is the one
- 18 that is involved in this case?
- 19 A. It is.
- Q. Is it in here, the well that was denied
- 21 before?
- 22 A. Yes. It's considered one of these wells.
- Q. Is it in here? What is the number of that?
- 24 What is the well number?
- 25 A. I didn't really number each well. It's just

- 1 -- I guess you could say Well 3, because we've already
- 2 drilled Well 2.
- This is just an assumption, based on the
- 4 length of the lateral. The longer laterals cost 6.941.
- 5 And we've got four of them to drill, and then we do the
- 6 east/west shorter lateral. If you look at the plat,
- 7 you'll see where the four laterals will be, the long
- 8 ones, and then the shorter lateral will be at east/west
- 9 in the north half/north half of 30.
- 10 Q. So your contention is that we previously
- 11 approved five units on some of these wells? And now,
- 12 come this well that is in question, it was denied? Is
- 13 that what you're saying? And those wells drilled on five
- 14 units, you have no problem?
- 15 A. Yeah. We've only drilled two. We have two
- 16 more to drill.
- 17 Q. Okay. On five units?
- 18 A. On five units.
- 19 Q. And the cost estimate here from the AFE --
- 20 A. Yes.
- 21 Q. -- what you are trying to demonstrate is that
- 22 you spend more money if you drill on five units than if
- 23 you drill on four?
- A. Yes. We're saying we're saving money by
- 25 drilling less wells. We're drilling five wells, as

- 1 opposed to six, in order to develop this entire Section
- 2 30 and 31.
- Q. And there is no correlative rights issues?
- 4 A. I don't believe so.
- 5 Q. Okay. You talked about ownership. What is
- 6 the ownership in that Section 30 and 31? You own 68
- 7 percent? Section 30 and 31, what is the ownership OGX
- 8 owns? Is the ownership identical?
- 9 A. No. Our interest varies in each well just
- 10 because of the size of the proration unit.
- 11 Q. What is OGX's interest there on those two
- 12 units; do you know?
- 13 A. The well we're talking about, OGX would own 43
- 14 percent of the well.
- 15 Q. Okay.
- A. And we've got a couple of other working
- 17 interest partners in the well.
- 18 EXAMINER EZEANYIM: Okay. I have nothing
- 19 further.
- 20 EXAMINATION
- 21 BY EXAMINER BROOKS:
- Q. Now, these wells that you list on Exhibit 4,
- 23 those are really hypothetical wells; are they not? They
- 24 don't refer to any -- there's no Well Number 1, 2, 3, 4,
- 25 5 and 6?

- 1 A. No, no. That's just based on the size.
- Q. The only well that's actually been drilled, if
- 3 I correctly understand it, is the well in the east half
- 4 of the east half?
- 5 A. That's been drilled and completed and
- 6 producing.
- 7 Q. Right.
- 8 A. The well here in question, we have drilled it.
- 9 Q. Okay. So you've drilled the subject well?
- 10 A. Yes, sir.
- 11 Q. The well in -- that has occurred since the
- 12 first hearing in this case, is it right that you drilled
- 13 that well? Or had you already drilled it at the time of
- 14 the first?
- 15 A. I believe we had started the well at the time.
- 16 Q. Okay. Actually, even before that, when you
- 17 first drilled this well over in the east half of the east
- 18 half, to fully develop this section, then on an east/west
- 19 basis, you would have had to have drilled seven wells;
- 20 would you not? Because it would take -- the fact that
- 21 that well existed precluded a six-well east/west pattern?
- A. I guess I need to think about that for a
- 23 minute. I mean I guess you'd have six east/west wells if
- 24 we hadn't drilled this first well, yeah.
- Q. Okay. That's what I thought. So not only is

- 1 this factor affected by the truncation of Section 31, but
- 2 it's also affected by the existing well in the east half
- 3 of the east half, which more or less dictates the pattern
- 4 of development here?
- 5 A. It did. By drilling that well, it kind of
- 6 dictated the pattern of what we were going to do.
- 7 Q. Now, all the working interest owners, except
- 8 this one that you mentioned, is that interest -- is that
- 9 an unleased mineral interest?
- 10 A. It is an unleased mineral interest.
- 11 Q. So all the other working interest owners,
- 12 other than that one, are on board with this?
- 13 A. Yes.
- 14 Q. Including Chesapeake?
- 15 A. Including Chesapeake. They signed the AFE and
- 16 the JOA and participated.
- 17 Q. They appeared in opposition at the first
- 18 hearing?
- 19 A. Yes.
- Q. But they're no longer opposed?
- 21 A. That's right.
- 22 Q. Did you say that OGX owns 100 percent of the
- working interest in the northwest quarter of 30?
- A. No. We own -- together with OXY USA, we own
- 25 approximately 68 percent of the northwest quarter.

- 1 Q. But the parties that are participating in this
- 2 well own 100 percent?
- 3 A. Correct, except for the unleased mineral
- 4 owner.
- 5 Q. The unleased mineral ownership is where?
- A. It's in Lot 2, which is the fifth 40.
- 7 Q. And that's the equivalent of which --
- A. The southwest of the northwest.
- 9 Q. That's what I thought you said. So the
- 10 unleased mineral owner doesn't own any interest in the
- 11 northwest quarter of Section 30?
- 12 A. Yes, the whole entire --
- 13 Q. The southwest of the northwest?
- 14 A. Yeah.
- 15 Q. Okay. I see what you're saying. I think I
- 16 understand it now. Thank you.
- MR. BRUCE: Let me ask just a couple of
- 18 follow-up questions, Mr. Examiner.
- 19 FURTHER EXAMINATION
- 20 BY MR. BRUCE:
- Q. Does Ms. Ware own throughout the northwest
- 22 quarter?
- 23 A. She does.
- MR. BRUCE: So I think what Mr. Lang was
- 25 saying is that before this well unit she owns in Lot 2,

- 1 but she also owned throughout the northwest quarter.
- 2 EXAMINER BROOKS: Okay, I didn't
- 3 understand that.
- Q. (By Mr. Bruce) Mr. Lang, when you commenced
- 5 drilling the well we're here for today out in this area,
- 6 were there a number of lease expiration issues?
- 7 A. We do have lease expirations. That's why we
- 8 had to drill then.
- 9 MR. BRUCE: That's all I have.
- 10 EXAMINER BROOKS: One other question.
- 11 FURTHER EXAMINATION
- 12 BY EXAMINER BROOKS:
- 13 Q. Is this all fee land?
- 14 A. No.
- 15 Q. What is the status?
- 16 A. It's all fee, except for Lots 6 and 7 in the
- 17 southeast part of 31. That's a federal lease.
- 18 Q. Southeast part of 31? So that is not in the
- 19 unit that we would be force pooling in this case?
- 20 A. Correct.
- 21 EXAMINER BROOKS: Thank you.
- 22 MR. BRUCE: Yeah. Mr. Examiner, I believe
- Lots 6 and 7 are, in essence, the south half/north half
- 24 of Section 31.
- 25 Q. (By Examiner Brooks) Are those state or

- 1 federal?
- 2 A. Federal, Lots 6 and 7.
- 3 Q. So no state lands involved?
- 4 A. No state lands. The rest of that is fee.
- 5 EXAMINER EZEANYIM: Are you still asking
- 6 for compulsory pooling?
- 7 MR. BRUCE: Yes
- 8 EXAMINER EZEANYIM: Maybe somebody will
- 9 tell us -- maybe we have on the previous order what your
- 10 overhead rates are.
- 11 EXAMINER BROOKS: It was all presented in
- 12 the previous hearing.
- 13 EXAMINER EZEANYIM: So we have that?
- 14 EXAMINER BROOKS: We have that. It's all
- 15 the usual things that they present about the
- 16 negotiations, and the overhead rates were presented in
- 17 the original hearing.
- 18 EXAMINER EZEANYIM: Okay.
- MR. BRUCE: Okay.
- 20 WILLIAM HARDIE
- 21 Having been first duly sworn, testified as follows:
- 22 DIRECT EXAMINATION
- 23 BY MR. BRUCE:
- Q. Please state your name for the record.
- 25 A. William Hardie.

- 1 Q. Where do you reside?
- 2 A. Midland, Texas.
- Q. Who do you work for, and in what capacity?
- 4 A. I am the exploration manager for OGX
- 5 Resources.
- 6 Q. By trade, are you a geologist?
- 7 A. I am.
- 8 Q. Have you previously testified before the
- 9 Division as a petroleum geologist?
- 10 A. Yes.
- 11 Q. And were you recognized as an expert
- 12 geologist?
- 13 A. I was.
- Q. Are you familiar with the geology involved in
- 15 this application?
- 16 A. I am.
- 17 MR. BRUCE: Mr. Examiner, I tender
- 18 Mr. Hardie as an expert petroleum geologist.
- 19 EXAMINER BROOKS: So recognized.
- Q. (By Mr. Bruce) Mr. Hardie, could you identify
- 21 Exhibit 6 for the Examiners and discuss the geology in
- 22 this area and primary zone of interest, which I believe
- 23 is the Avalon Bone Springs?
- A. It is the Avalon. Exhibit 6 is actually two
- 25 maps. The map on the left is isopach of the shale within

- 1 the Avalon section. The Avalon section is about 1,000
- 2 feet thick in gross thickness, but within that thousand
- 3 feet of gross thickness, there is a combination of both
- 4 organic rich silt stones and detrital carbonates.
- 5 So the net map that you see on the left is
- 6 simply the thickness of the organic rich silt stones,
- 7 which are not only the source, but the reservoir for the
- 8 Avalon. And this map shows that the thickness across
- 9 this part of Eddy County ranges from around 250 feet of
- 10 net thickness to over 550 feet of net thickness.
- 11 I've also labeled Sections 31 and 30 and the
- 12 development that OGX has planned in that area. The well
- on the west half/west half is the Copperhead Fee A Number
- 14 1H, which is the well that's involved in this hearing.
- 15 And then on the east half/east half is the Copperhead 31
- 16 Fed Com Number 1H, and that well is drilled and
- 17 completed. The red sticks denote the future locations
- 18 that Mr. Lang testified about previously.
- 19 The map on the right is simply a structure map
- 20 of the base of the Avalon formation, and there's nothing
- 21 particularly interesting about the structure in this
- 22 area. It's simply a regional dip, and it's back to the
- 23 east at 100 feet per mile. So there is really no real
- 24 structural component to the Avalon that's worthy of note
- 25 here.

- 1 Q. And do the maps locate a line of
- 2 cross-sections here?
- A. They do. On both maps that line of
- 4 cross-section is shown in red in prime, and it's Exhibit
- 5 7.
- Q. Let's go to Exhibit 7, the cross-section. And
- 7 describe what is shown that OGX is testing in these
- 8 wells.
- 9 A. Exhibit 7 is an east/west cross-section. And
- 10 it was drawn through wells in this play that have --
- 11 actually, where the operator has drilled pilot wells. So
- 12 it's possible to look at the logs through this section.
- Most operators now are not drilling pilot
- 14 wells. They build their curve before they get to the
- 15 Avalon and then enter the Avalon horizontally. So it's
- impossible to get logs, which is why this cross-section
- doesn't pass through OGX's acreage.
- 18 But it does demonstrate the stratigraphy of
- 19 the Avalon. It's shown in the middle of the
- 20 cross-section. And I've color coded the Avalon section
- 21 such that the blue represents the carbonate debris flow
- 22 lithology, and the brown represents the organic silt
- 23 stone. And of course the organic stilt stone is the
- 24 target.
- 25 And for each of those wells, I've also shown

- 1 where the operator chose to go horizontal in the section.
- 2 That's designated by the green markers, and it
- 3 demonstrates that operators are going horizontal in many
- 4 parts of the overall formation.
- 5 The other point that is worth making, and it
- 6 also refers back to the isopach, is that it's -- and I've
- 7 testified to this before. It's simply impossible for one
- 8 lateral to drain this entire 550 feet of net section that
- 9 we encounter in this part of the world.
- Therefore, there's essentially no difference
- in the value or the quality of the acreage across this
- 12 entire leasehold. It would take multiple laterals
- 13 stacked one on top of the other in order to adequately
- 14 drain the entire section. So that each of these wells is
- 15 expected to make a virtually identical amount of reserves
- 16 across the entire leasehold OGX has.
- 17 Q. In looking at the isopach, looking at both
- 18 Sections 30 and 31, you're anticipating these wells will
- 19 encounter 500 to 550 feet of the zone of interest?
- 20 A. That's correct. They will encounter it, but
- 21 they will certainly not drain all of that.
- Q. But in looking at this, in drilling -- in
- 23 developing these two sections this way, you weren't
- 24 trying to exclude anyone because of some poor geology in
- one or more of the quarter/quarter sections?

- 1 A. We were not trying to exclude anyone. This is
- 2 perhaps the thickest Avalon section in all of Southeast
- 3 New Mexico in these two sections. So it's very good
- 4 quality rock all the way across the lease.
- 5 Q. So geologically, there would be no reason why
- 6 you'd want to avoid drilling any of the quarter/quarter
- 7 sections?
- 8 A. That's correct.
- 9 Q. The other thing on what you just alluded to,
- 10 and I think you discussed this in one of the prior
- 11 hearings, there is the possibility of OGX and other
- 12 operators going back and drilling a second or in some
- 13 places maybe even a third horizontal well in a well unit
- 14 where you've already tested one of the intervals?
- 15 A. I anticipate that will happen in the near
- 16 future. It has not happened yet, that I know of.
- Q. Were Exhibits 6 and 7 prepared by you,
- 18 Mr. Hardie?
- 19 A. Yes.
- 20 Q. In your opinion, is the granting of this
- 21 application in the interest of conservation and the
- 22 prevention of waste?
- 23 A. It is.
- 24 MR. BRUCE: Mr. Examiner, I move the
- 25 admission of Exhibits 6 and 7.

- 1 EXAMINER BROOKS: 6 and 7 are admitted.
- 2 (Exhibits 6 and 7 were admitted.)
- 3 MR. BRUCE: I have no further questions of
- 4 the witness.
- 5 EXAMINER BROOKS: Mr. Ezeanyim?
- 6 EXAMINATION
- 7 BY EXAMINER EZEANYIM:
- 8 Q. What is the cutoff porosity on this Avalon
- 9 shale?
- 10 A. I'm not using a porosity cutoff. I'm using a
- 11 gamma ray cutoff.
- 12 Q. What is that?
- 13 A. That is 100 API units.
- 14 O. Is 100 API there?
- 15 A. That's a pretty severe cutoff on the organic
- 16 rich -- it's difficult to map reservoirs adequately,
- 17 unconventional reservoirs, because the porosity is not
- 18 realistic. It's measured on the logs. It's actually
- 19 measuring approximately 20 percent porosity, when we know
- 20 from cores that the actual porosity is about 6 percent.
- 21 So porosity cutoffs are inappropriate.
- Q. The first sand, is that productive at all?
- A. The first Bone Spring sand is the unit below
- 24 the Avalon.
- Q. So there is nothing happening there?

- Α. It is actually a target of development about 1
- 2 12 miles to the north of these leases.
- 3 Okay. Right now your target is the Avalon
- The Avalon shale is where you are right now? 4 shale?
- Α. 5 That's correct.
- EXAMINER EZEANYIM: Thanks. 6
- 7 EXAMINATION
- 8 BY EXAMINER BROOKS:
- In the order that the Division previously 9 Ο.
- entered in this case, the Division stated that your 10
- testimony in the previous hearing did not indicate that 11
- 12 the differences in thickness shown on the isopach were of
- 13 any particular significance. And I gather from your
- 14 testimony today that that was an accurate conclusion?
- 15 Α. Yes, sir.
- 16 EXAMINER BROOKS: That's all I have.
- 17 MR. BRUCE: I have nothing further in this
- 18 case.
- 19 EXAMINER BROOKS: Very good then.
- 20 Case Number 14661 will be taken under advisement.

21

I to haveby certify that the foregoing to 22

a complete record of the process 23

ise Examiner hearing of Sept 15, 2011. 24

Tarrid K. Brook 25

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