Page 1 STATE OF NEW MEXICO 1 2 ENERGY, MINERAL AND NATURAL RESOURCES DEPARTMENT 3 OIL CONSERVATION DIVISION 4 5 April 14, 2016 б 1:16 p.m. Wendell Chino Building 7 Porter Hall 1220 S. St. Francis Drive Santa Fe, New Mexico 8 9 TRANSCRIPT OF PROCEEDINGS 10 11 CASE NO. 15465 12 APPLICATION OF ENDURANCE RESOURCES LLC TO FOR A SPECIAL DEPTH BRACKET ALLOWABLE FOR THE WC-025 G-05 S253523H; DELAWARE POOL, LEA COUNTY, NEW MEXICO 13 14 15 16 BEFORE: WILLIAM JONES, Lead Examiner 17 SCOTT DAWSON, Examiner DAVID K. BROOKS, Legal Examiner 18 19 20 21 REPORTED BY: DEBRA ANN FRIETZE PAUL BACA COURT REPORTERS 22 500 4th Street, NW, Suite 105 Albuquerque, New Mexico 87102 23 24 25

	Page 2	Page 4
1	APPEARANCES	1 Division?
2 3 4 5 6 7 8 9 10 11 12 13 14	-	<ul> <li>Division?</li> <li>A. Yes, ma'am, I have.</li> <li>Q. Were your credentials as a petroleum landman</li> <li>accepted and made a matter of record?</li> <li>A. Yes, they were.</li> <li>Q. Are you familiar with the application that's</li> <li>been filed on behalf of Endurance in this case?</li> <li>A. Yes, I am.</li> <li>Q. And are you familiar with the status of the</li> <li>lands and the subject portion of the WC-025 G-05</li> <li>S253523H Delaware Pool?</li> <li>A. Yes, I am.</li> <li>Q. Will you understand if I refer to that as the</li> <li>Wildcat Delaware Pool?</li> <li>A. Yes, I will.</li> <li>MS. KESSLER: I will tender Mr. South as an</li> </ul>
15 16 17 18 19 20 21 22 23 24 25	Page 3	<ul> <li>expert witness in petroleum land matters.</li> <li>EXAMINER JONES: He is qualified as an</li> <li>expert in petroleum land matters.</li> <li>Q. (By Ms. Kessler) Mr. South, can you briefly</li> <li>summarize what Endurance seeks under this application?</li> <li>A. Yes. Endurance is seeking to increase the</li> <li>depth bracket allowable for all oil wells drilled within</li> <li>the Delaware Wildcat Pool.</li> <li>Q. What are the current applicable rules for this</li> </ul>
1	EXAMINER JONES: Case Number 1545,	1 Wildcat Pool?
2	application of Endurance Resources, LLC, for a special	<ul> <li>A. About a 40-acre spacing and 330-foot setbacks.</li> </ul>
3	depth bracket allowable for the I want to say Wildcat	<sup>3</sup> Q. And what is the current depth bracket
4	Delaware Pool, Lea County, New Mexico.	4 allowable?
5	Call for appearances.	5 A. 230 barrels of oil per day.
6	MS. KESSLER: Jordan Kessler, from the	6 Q. When was this pool created?
7	Santa Fe Office of Holland and Hart, on behalf of the	7 A. This pool was created in 2009 by Chesapeake.
8	applicant.	8 They successfully drilled the Dinwiddie 23 Federal 1
9	EXAMINER JONES: Any other appearances?	9 Well in Section 23, 25 South, 35 East. And that well is
10	MS. KESSLER: I have two witnesses today or	10 now owned by Chevron, as it will be referenced in
11	three witnesses today. I apologize.	11 Chevron and other exhibits.
12	[At which time Jason South, Randall Harris	12 Q. Are the perforations for that well between
13	and Manny Sirgo were sworn under oath.]	13 8,443 and 8,492 feet?
14	JASON SOUTH	14 A. Yes, they are.
15	having been previously sworn under oath,	<sup>15</sup> Q. As a result, did the Division set the depth
16	was questioned and testified as follows:	16 bracket allowable for the range of 8,000 feet to 8,999
17	DIRECT EXAMINATION	17 feet?
18	BY MS. KESSLER:	18A. Yes, that's correct.
19	Q. Please state your name for the record and tell	19 Q. So that would be 230 barrels of oil per 40-acre
20	the Examiners by whom you're employed and in what	20 spacing, correct?
21	capacity.	A. Yes, that's correct.
22	A. My name is Jason South. I work for Endurance	22 Q. What is the TD for Endurance's current well?
		22Q. What is the TD for Endurance's current well?23A. It's 8,897.
22	A. My name is Jason South. I work for Endurance	

## 2 (Pages 2 to 5)

	Page 6	Page 8
1	well?	1 MS. KESSLER: I would move admission of
2	A. Yes, they did.	<sup>2</sup> Exhibits 1 and 2.
3	Q. And what is that allowable?	3 EXAMINER JONES: Exhibits 1 and 2 are
4	A. It was a 60-day test allowable of just whatever	4 admitted.
5	the well produced during that timeframe.	5 [Exhibits 1 and 2 admitted.]
6	Q. Could you please identify Exhibit 1?	6 EXAMINER JONES: Scott, do you want to
7	A. Yes. So Exhibit 1 shows the pool boundaries	7 start?
8	for the Delaware Wildcat Pool, which consists of the	8 EXAMINER DAWSON: So the Chesapeake
9	west half of Section 16, the southeast quarter Section	<sup>9</sup> originally drilled the wells that are currently owned by
10	16, the south half of Section 15, the north half or	<sup>10</sup> Chevron?
11	the northeast quarter Section 22, and the north half of	11 THE WITNESS: Yes, sir, they did, in 2009.
12	Section 23, which is all in 25 South, 35 East.	12 EXAMINER DAWSON: 2009? Do you know how
13	And that is represented by the hashmarks on	<sup>13</sup> much that well has produced? That might be a
14	the Exhibit 1 plat. And the red line marks the 1 mile	14 question
15	boundary around the pool.	15 THE WITNESS: I don't. Yes, it's coming
16	Q. Are the green dots with the thinner red lines,	<sup>16</sup> up. They have all that data.
17	I guess, is that the current Endurance producing well?	17 EXAMINER DAWSON: Okay. That's all the
18	A. Yes. The White Falcon is our current producing	18 questions I have. Thank you.
19	well, and that's located in the west half, west half of	19 EXAMINER JONES: This mile boundary around
20	Section 16.	<sup>20</sup> it, was there any other what are we, Bone Spring
21	Q. And Chevron's Dinwiddie Well is also marked on	<sup>21</sup> here, Delaware were there any other Delaware pools in
22	this exhibit?	that mile radius or mile boundary around it?
23	A. Yes. And that's located in the northeast	THE WITNESS: I'm honestly not sure on
24	quarter of Section 23.	that. I know there's a Javelina/Delaware pool, but I'm
25	Q. What is the current production of Endurance's	<sup>25</sup> not sure where that lines up with this acreage.
	Page 7	Page 9
1	well?	1 EXAMINER JONES: Okay. I'll have to ask
2	A. Right now, it's currently about average,	2 David here, but we're going to end up with special pool
3		- David Here, but were going to end up with special pool
5	about 900 barrels a day.	<sup>3</sup> rules for a pool that's still a wildcat. If we gave it
4	about 900 barrels a day. Q. And is that due to compliance with the depth	<ul> <li>rules for a pool that's still a wildcat. If we gave it</li> <li>a name, it would be, you know, creating it as a</li> </ul>
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## 3 (Pages 6 to 9)

	Page 10		Page 12
1	nomenclature orders?	1	EXAMINER JONES: And the pool code is the
2	And I think the answer has got to be yes	2	same, whether we end up changing the name to something
3	because of the way we operate. We can put whatever	3	intelligible or not.
4	conditions need to be put in the order about what will	4	MS. KESSLER: Correct. And as long as
5	happen if this pool is not officially created at some	5	those rules are provisionally in place, I think that
6	point in time.	6	satisfies what we're looking for.
7	I think that we have got so many pools that	7	EXAMINER BROOKS: I would assume when the
8	have been created by district geologists and have not	8	pool is created, that it would given a different name.
9	yet been approved by nomenclature orders that I think we	9	You know, it would be good if we had some way to keep
10	would be disabled to do our business if we didn't	10	track of proceedings like this so that in the
11	proceed on applications like this.	11	nomenclature order, we could note the existence of those
12	EXAMINER JONES: Okay. What I hear you two	12	pools of these special pool rules so that people
13	saying is that we could go ahead with this. But in	13	would be able to know what's going on without searching
14	order to actually create the pool, it would need to	14	through every order we've ever issued.
15	actually be a formal application at a hearing.	15	EXAMINER JONES: It sounds like you would
16	MS. KESSLER: Well, I think that the pool	16	rather it have been advertised as a nomenclature
17	has been created. If you look at the if we can turn	17	hearing?
18	to the C-102 at some point. It's not contained in the	18	EXAMINER BROOKS: Well, I think it would
19	exhibits, but the C-102 for the subject Endurance well	19	have been I think it would have made things more
20	has a wildcat designation with that long WC dash name	20	orderly if applicants would ask if they want special
21	and also a pool code associated with it. So	21	pool rules, would ask for a nomenclature designation at
22	EXAMINER BROOKS: However, there is not an	22	the time.
23	order on the books that creates this pool	23	But I don't think anybody that practices
24	MS. KESSLER: That's correct.	24	here would be likely to know that, because you and I
25	EXAMINER BROOKS: and the Oil and Gas	25	know more about these things than most of the people in
	Page 11		Page 13
1	Act gives the Division the power to create pools. It	1	the world, and we kind of need to take charge here.
2	doesn't say the district geologist can create pools.	2	EXAMINER JONES: Okay. I don't think I
3	That's a creation of delegation of duty. So I still	3	have any more questions. Thank you very much.
4	contend that unless and until this pool is created, its	4	THE WITNESS: Thank you.
5	status is different from that of pools that have been	5	MS. KESSLER: I'll call our next witness,
6	created by Division or Commission orders.	6	please.
7	But I believe that in order to properly	7	
			RANDALL HARRIS
8	administer the system we have in place, that we should	8	RANDALL HARRIS having been previously duly sworn under oath,
9	recommend to the Director that he, in this case,	8 9	having been previously duly sworn under oath, was questioned and testified as follows:
9 10	recommend to the Director that he, in this case, assuming we don't have some other reason not to grant	8 9 10	having been previously duly sworn under oath, was questioned and testified as follows: DIRECT EXAMINATION
9 10 11	recommend to the Director that he, in this case, assuming we don't have some other reason not to grant the application, establish special pool rules for this	8 9 10 11	having been previously duly sworn under oath, was questioned and testified as follows: DIRECT EXAMINATION BY MS. KESSLER:
9 10 11 12	recommend to the Director that he, in this case, assuming we don't have some other reason not to grant the application, establish special pool rules for this pool that provisionally exists to become effective or	8 9 10 11 12	having been previously duly sworn under oath, was questioned and testified as follows: DIRECT EXAMINATION BY MS. KESSLER: <b>Q. Would you please state your name for the record</b>
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## 4 (Pages 10 to 13)

	Page 14		Page 16
1	A. Yes, I am.	1	we deal with, and we have a little broad trending nose
2	Q. And are you familiar with the geology in this	2	going south/southwest.
3	Wildcat Delaware Pool?	3	Q. And why is the oil saturation higher in this
4	A. Yes, I am.	4	particular area?
5	MS. KESSLER: I tender Mr. Randall as an	5	A. The oil saturation is higher. And really, I
6	expert in petroleum geology.	6	need to go to the next map, if that would be all right?
7	EXAMINER JONES: Mr. Harris is so	7	Q. Sure. Let's turn to Exhibit 4.
8	gualified.	8	A. Exhibit 4 is an isopach or an iso pay map of
9	MS. KESSLER: I'm sorry, Mr. Harris.	9	the specific sand that I have been chasing in the area.
10	Q. (By Ms. Kessler) Why does Endurance seek to	10	Throughout this area, you'll see that the
11	increase the authorized producing rates for this pool?	11	sand itself is anywhere from 12 feet thick, 18 feet
12	A. We're seeking a greater allowable because the	12	thick to the south, 14 to the west, 13 feet to the
13	formation itself is capable of it. We're in a very	13	north. However, across this generalized area, the
14	unique situation, with a closed stratigraphic sand trap	14	greener and the more yellow it gets, it gets thicker.
15	not affecting any of the Delaware and the surrounding	15	We have seen it as high as 69-foot thick. And it's one
16	areas. So just on that basis alone, we think it	16	specific sand so far, and that's the target sand.
17	deserves its own pool rules.	17	The sand in placement has to do with
18	Plus the oil saturation is totally	18	residual structures of the top of the Bone Springs.
19	different than any other Delaware in the immediate	19	There was a little residual structure sitting here at
20	vicinity for the same reason.	20	one time. That's before basin rotation and tilt
21	Q. Is the sand also thicker in this area than	21	residual mapping. The sands would have been coming in
22	you've seen in other areas surrounding?	22	and piled up against this low-lying structure and formed
23	A. Yes. One specific sand, the sand that I've	23	an actual dune.
24	been tracking, the sand that we have actually completed	24	So we now, at the time of creation of our
25	in.	25	submarine sand dune, we've got it thin on both sides,
	Page 15		Page 17
1	The sands as a whole unit over the lower	1	thick in the middle, thick on the north, or to the north
2	The sands as a whole unit over the lower Delaware doesn't change much due to valley filling and	2	thick in the middle, thick on the north, or to the north and south. So we're thinning all the way around us. So
2 3	The sands as a whole unit over the lower Delaware doesn't change much due to valley filling and differential compaction things that in the State's	2 3	thick in the middle, thick on the north, or to the north and south. So we're thinning all the way around us. So we actually have an isolated sand dune approximately
2 3 4	The sands as a whole unit over the lower Delaware doesn't change much due to valley filling and differential compaction things that in the State's approval are uniform, but individual sands do vary a	2 3 4	thick in the middle, thick on the north, or to the north and south. So we're thinning all the way around us. So we actually have an isolated sand dune approximately 2/12 miles long, a mile and a half wide, and downdip is
2 3 4 5	The sands as a whole unit over the lower Delaware doesn't change much due to valley filling and differential compaction things that in the State's approval are uniform, but individual sands do vary a lot.	2 3 4 5	thick in the middle, thick on the north, or to the north and south. So we're thinning all the way around us. So we actually have an isolated sand dune approximately 2/12 miles long, a mile and a half wide, and downdip is in every direction at the time of deposition.
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2 3 4 5 6 7	The sands as a whole unit over the lower Delaware doesn't change much due to valley filling and differential compaction things that in the State's approval are uniform, but individual sands do vary a lot. Q. Okay. Can you please identify and review Exhibit 3?	2 3 4 5 6 7	thick in the middle, thick on the north, or to the north and south. So we're thinning all the way around us. So we actually have an isolated sand dune approximately 2/12 miles long, a mile and a half wide, and downdip is in every direction at the time of deposition. And that's very important, because later you'll see that one of our wells is only about a 20
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## 5 (Pages 14 to 17)

1       north/south direction.       1       is an Avalon Bone Springs well.         2       The next cross-section, which is 6, is an       2       EXAMINER DAWSON: Okay. Is that a oh,         3       east/west cross-section depicting the exact same       3       that's a horizontal         4       interval hanging on top of our pay sand. But this one       4       THE WITNESS: Correct.         5       does take it goes from west to east, with the east       5       EXAMINER DAWSON: And then the Rattlesnak         6       following up on the Chevron Dinwiddle Well, which is       6       Federal 6, is that in the northwest corner of Section         7       within the pool.       7       16?         8       Q. Are there red sections on these the red       8       THE WITNESS: Yes, sir, it is.         9       marks on these cross-sections, are those where these       9       EXAMINER DAWSON: Or is that 15 or 17?         10       wells have been perforated?       10       I'm sorry.       11         11       A. Yes. On the cross-sections themselves, if       11       THE WITNESS: 15.       15         12       there was a red mark in the Delaware, that is where they       12       EXAMINER DAWSON: It would be in 16 or 17,         13       were perforated and completed.       13       right? It's kind
3       east/west cross-section depicting the exact same       3       that's a horizontal         4       interval hanging on top of our pay sand. But this one       4       THE WITNESS: Correct.         5       does take it goes from west to east, with the east       5       EXAMINER DAWSON: And then the Rattlesnak         6       following up on the Chevron Dinwiddie Well, which is       6       Federal 6, is that in the northwest corner of Section         7       within the pool.       7       16?         8 <b>Q.</b> Are there red sections on these the red       8       THE WITNESS: Yes, sir, it is.         9       marks on these cross-sections, are those where these       9       EXAMINER DAWSON: Or is that 15 or 17?         10       wells have been perforated?       10       I'm sorry.         11       A. Yes. On the cross-sections themselves, if       11       THE WITNESS: 15.         12       there was a red mark in the Delaware, that is where they       12       EXAMINER DAWSON: It would be in 16 or 17,         13       were perforated and completed.       13       right? It's kind of hard to see on this map.         14       And most of the wells to the south of this,       14       THE WITNESS: Yes, it is.         15       the Ragin Cajuns, the Rattlesnakes, the Madera, all       15       EXAMINER DAWSON: T
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<sup>18</sup> whole this thin sand member where it's thick in our <sup>18</sup> acreage is only the hashmarks.
19 area 19 FXAMINER DAWSON: Okav. So that must be
20Q. After reviewing the geology in this area, do20over on 17 in Section 17?
21     you believe that there is a higher oil saturation due to     21     THE WITNESS: We have all these written
22   the stratigraphic tract?   22   down.
23A. Oh, definitely. We see it in our production.23MR. SOUTH: I think it's 13.
24     Q. So this has resulted in higher production     24     THE WITNESS: Yeah, 13, section 13.
25   with   25   EXAMINER DAWSON: Section 13? 13 is east
Page 19 Page 2
1 A. Yes. Higher production, lower water 1 of there, isn't it?
2 saturations, higher oil saturations. 2 THE WITNESS: The Rattlesnake Federal
3 Q. And do you believe that this extends more or 3 Number 6?
4 less across the current boundaries of the Wildcat 4 EXAMINER DAWSON: Yes.
5 Delaware Pool? 5 THE WITNESS: Section 13.
6 A. Yes, it does, and it extends further south, 6 EXAMINER DAWSON: Section 13? Oh, okay
7 also. It's going to follow the main sand trend, as I 7 Is that well producing from the same zone?
8 have it currently mapped I believe it should follow 8 THE WITNESS: No, sir. It's producing from
9 as I currently have them mapped in thickness. 9 and upper and lower zones. The Rattlesnake itself, if
10Q. In your opinion, will the granting of this10you'll look at the cross-section, there are three sets
11 application be in the best interest of conservation for 11 of perforations noted. And yes, one of perforations are
12the prevention of waste and the protection of12within this sand interval. But there's 100 feet above
13       correlative rights?         13       it, and there's another set 100 feet below it.
14A. Yes, I do.14This was a lateral that transversed 200
15     Q. Were Exhibits 3 through 6 prepared by you?     15     feet, so we just had to classify everything as
16     A. Yes.       16     productive.
17         EXAMINER DAWSON: Mr. Harris, on your         17         EXAMINER DAWSON: Okay. Is that well still
18     Exhibit 5, AA prime cross-section, the first well on     18     producing, or do you know?
19     that cross-section is up in is that in the northwest     19     THE WITNESS: Yes, it's still producing.
20 corner of Section 9? Is that where that Madera 24, 20 EXAMINER DAWSON: But that's not on your
21     Federal 2H       21     acreage?
22     THE WITNESS: Yes, that's correct.     22     THE WITNESS: No. It's three miles away.
<sup>23</sup> EXAMINER DAWSON: In that well, they never <sup>23</sup> EXAMINER DAWSON: Okay. I believe that's
24perforated that24all the questions I have. Thank you.25THE WITNESS: No, no. That's in the it25EXAMINER JONES: I guess you said dune

# 6 (Pages 18 to 21)

13       THE WITNESS: Yes.       13       in excess of their allowables now?         14       EXAMINER JONES:	1	Page 22		Page 24
3       EXAMINER JONES: These would be on a shelf       3       as you get more and more of the crossover, your water         4       before the dropoff into the deep part of the ocean?       as you get more and more of the crossover, your water         5       THE WITNESS: This is actually right next       to the lift going onto the Midland shelf, yes. We are       out more questions.         7       on within a mile of shelf material versus basal       material.         9       EXAMINER JONES: Okay. So if you move       EXAMINER BROOKS: No you have a place to         10       for the deep, carm waters that would be       EXAMINER BROOKS: No you have a place to         11       low-energy environments. So this is kind of a gradation       also, so you end up with some porosity -         13       THE WITNESS: Yes.       THE WITNESS: No. I'm here all week.         14       EXAMINER JONES: Or you have a place to       each?         15       Ockay. It looks like you want to drill all       the sand, and it is separated by some high-organic       the area. I think you should be able to because it is a         12       the sand seismically.       EXAMINER JONES: Okay. Was it sourced by       MS. KESSLER: Wurdenstanding is quite         14       the shales above and below, do you think?       THE WITNESS: Yes. The same are than a would be discommoded by.         15       THE WITNESS: Yes. In fact, when mapping <td< th=""><th></th><th>deposits, submarine dune deposits; is that correct?</th><th>1</th><th>less crossover. And it's been tried, and your water</th></td<>		deposits, submarine dune deposits; is that correct?	1	less crossover. And it's been tried, and your water
3       EXAMINER JONES: These would be on a shelf       3       as you get more and more of the crossover, your water su ut drops and your oil test goes up. However, your gas out drops and your oil test goes out have any mere for test. Next However, and the week and below, do you think?         1       THE WITNESS: The sith is a probable with some programic shales above it. And as you can see, ther allowable.       THE WITNESS: Yes. In have a plane to wondering how seriously up. Would be discommonded by additional four weeks' delay.         2       THE WITNESS: Yes. In fact, when mapping the sand solut it. and bolow, it, or its packable to the sand or it he sand, in di you - i know well tai	2		2	saturations are down about 15 percent, 18 percent, while
5       THE WITNESS: This is actually right next       5       volume, your gas/off ratio, stays about the same. It         6       to the lift going onto the Midland shelf, yes. We are on within a mile of shelf material versus basal material.       5       volume, your gas/off ratio, stays about the same. It         7       on within a mile of shelf material versus basal material.       5       volume, your gas/off ratio, stays about the same. It         9       EXAMINER JONES: Ckay. So if you move further out, you get the deep, calm waters that would be further out, you get the deep, calm waters that would be further out, you get the deep, calm waters that would be further out, you this some porosofty -       EXAMINER BROOKS: Do you have a plane to catch?         11       THE WITNESS: Yes.       THE WITNESS: Yes.       THE WITNESS: Yes.         12       the area. It hink you should be able to because it is a clean sand, and it is separated by scome high-organic shales above it and below it, so it's possible to be able to map the sand seismically.       THE WITNESS: Yes.       THE WITNESS: Yes.         21       the shales above and below, do you think?       The WITNESS: Yes.       The with seamater, and think was to able to map the sand seismically.       The with seamater, and think was to create.       The with seamater, and think was to able to map the sand seismically.         23       the shales above and below, do you think?       The with seamater and think was and the was to able to map the sand seismically.       The with what we were their allowable.       The	3	EXAMINER JONES: These would be on a shelf	3	as you get more and more of the crossover, your water
6       to the lift going onto the Midland shelf, yes. We are on within a mile of shelf material versus basal       6       doesn't change much.         7       on within a mile of shelf material versus basal       7       EXAMINER JONES: Okay. I don't have any more questions.         9       EXAMINER JONES: Okay. So if you move       9       EXAMINER BROOKS: Do you have a plane to catch?         10       ow-energy environments. So this is kind of a gradation also, so you end up with some poresity - datos, you get the deep, caim waters that would be also, so you end up with some poresity - catch?       9       EXAMINER BROOKS: Ano these wells product in excess of their allowables now?         14       EXAMINER JONES: - in the sands?       14       EXAMINER JONES: - in the sands?         16       these wells just lift with Coachman fee.       16       THE WITNESS: Yes, sir.         17       THE WITNESS: Yes, sir.       17       THE WITNESS: We don't have seismic across shales above in and below it, so if's possible to be able to map the sand seismically.       18       wondering how seriously you would be discommodel.         20       THE WITNESS: Yes. Those are pretty highly organic shales. We've taken cores in several places.       15       issues, we were basically just tol to seek a higher allowable.         21       the shales above and below, td, you think?       1       issues, we were basically just tol to seek a higher allowable.         22       EXAMINER BROOKS: Yesh. And ike I	4	before the dropoff into the deep part of the ocean?	4	cut drops and your oil test goes up. However, your gas
7       on within a mile of shelf material versus basal material.       7       EXAMINER JONES: Okay. I don't have any more questions.         9       EXAMINER JONES: Okay. So if you move further out, you get the deep, caim waters that would be further out, you get the deep, caim you get that an sel	5	THE WITNESS: This is actually right next	5	volume, your gas/oil ratio, stays about the same. It
8       material.       more questions.       more questions.         9       EXAMINER BROCKS: Do you have a plane to function.         10       further out, you get the deep, caim waters that would be function.       page 20         11       low-energy environments. So this is kind of a gradation also, so you end up with some poresity -       11         13       THE WITNESS: Yes.       11         14       EXAMINER JONES: - in the sands?       11         15       Okay. It looks like you want to drill all       11         16       these wells just like that Coachman fee.       17         17       THE WITNESS: Yes, sir.       14         19       you see that on selimic or something?       14         20       THE WITNESS: We don't have selismic across       14         21       the area. I think you should be able to because it is a       15         22       THE WITNESS: Ves. Those are prety highly       organic shales above it and below, do you think?         23       the shales above and below, do you think?       14         24       ther shales above and below, do you think?       25         25       EXAMINER JONES: Okay. Was it sourced by       26         26       THE WITNESS: Yes. Those are prety highly       organic shale above it. And as you can see,	6	to the lift going onto the Midland shelf, yes. We are	6	doesn't change much.
9       EXAMINER JONES: Okay. So if you move       9       EXAMINER BROCKS: Do you have a plane to         10       further out, you get the deep, calm waters that would be       10       catch?         11       low-energy environments. So this is kind of a gradation       10       catch?         13       THE WITNESS: Yes.       11       THE WITNESS: No. I'm here all week.         14       EXAMINER JONES: in the sands?       11       11       11         15       Okay. It looks like you want to drill all       16       EXAMINER BROCKS: I'm still concerned about         16       these wells just like that Coachman fee.       16       EXAMINER JONES: Drill the good ones. Can         16       EXAMINER JONES: Drill the good ones. Can       18       wondering how serously you would be discommoded by         19       you see that on seismic or something?       18       Wondering how serously you would be discommoded by         20       THE WITNESS: We don't have seismic across       18       wondering how serously you would be discommoded by         21       the area. I think you should be able to because it is a       21       seriously, because they have cut back significantly on         22       the area. I think you should be able to because it is a       21       seriously, because they have cut back significantly on         23       shal	7	on within a mile of shelf material versus basal	7	EXAMINER JONES: Okay. I don't have any
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11       low-energy environments. So this is kind of a gradation       11       THE WITNESS: No. I'm here all week.         12       also, so you end up with some porosity -       12       EXAMINER BROOKS: Are these wells product         13       THE WITNESS: Yes.       11       THE WITNESS: No. We were curtailed to the         14       EXAMINER JONES:	9	EXAMINER JONES: Okay. So if you move	9	EXAMINER BROOKS: Do you have a plane to
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<sup>25</sup> some of the same porosity, but you're running less and <sup>25</sup> <b>Q.</b> And are you familiar with the reservoir and the	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	there's anywhere from 30 to 90 feet of shale below it. And then you go right into the Avalon of the Bone Springs, so that's a good source bed. So all the sourcing is probably with 100, 200 feet of the sand placement. EXAMINER JONES: Okay. So the gas production, did you I know we'll talk to the geologist about that. Did you look at it, and do you see gas on the logs here? THE WITNESS: Yes. In fact, when mapping the sand, I only used crossover neutron density for determining if it is a productive part of the sand or not. EXAMINER JONES: Oh, wow. So you run it on lime matrix? THE WITNESS: I run on lime matrix, yes, sir. EXAMINER JONES: And there's a big reason.	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	<ul> <li>I'm concerned about how we're going to handle this. But go ahead and do your last witness, and then we'll talk about it.</li> <li>MS. KESSLER: Okay. MANNY SIRGO having been previously sworn under oath, was questioned and testified as follows: DIRECT EXAMINATION</li> <li>BY MS. KESSLER:</li> <li>Q. Please state your name for the record and A. My name is Manny Sirgo. I'm Vice President of Operations for Endurance.</li> <li>Q. And have you previously testified before the Division?</li> <li>A. Yes, I have.</li> <li>Q. Were your credentials as a petroleum engineer accepted and made as matter of record?</li> <li>A. Yes.</li> <li>Q. Are you familiar with the application filed on behalf of Endurance?</li> </ul>

<sup>7 (</sup>Pages 22 to 25)

	Page 26		Page 28
1	subject portion of the Wildcat Delaware Pool?	1	productivity. I think that, as Randall pointed out,
2	A. Yes, I am.	2	it's principally due to we just have a mass of sand
3	MS. KESSLER: I would tender Mr. Sirgo as	3	in this location.
4	an expert in petroleum engineering.	4	We saw no evidence that we were pulling the
5	EXAMINER JONES: He is so qualified.	5	well hard. The well has maintained the same GOR since
6	Q. (By Ms. Kessler) Could you please identify	6	we cut it back. And as far as the four weeks, you know,
7	and review Exhibit 7?	7	it's 500 barrels a day is what we're basically asking
8	A. Exhibit 7 is a daily plot of the Endurance	8	for, over and above what we're producing today. So it's
9	White Falcon Well. The well basically came on	9	not insignificant.
10	production January 2nd of this year, first oil	10	EXAMINER BROOKS: I'm sorry?
11	production.	11	THE WITNESS: You know, the current
12	Paul granted us a test allowable for the	12	allowable is 230, whereas it's going to go to I think
13	first 60 days, which we basically determined that was a	13	it's 340, which amounts to about 500 more barrels a day
14	period we could recover all of our load and able to	14	than we're getting to produce right now.
15	watch the well's oil cut during that period.	15	EXAMINER BROOKS: Yeah, that is a
16	So during that period, if you'll look on	16	significant amount of money. But the real concern, I
17	the graph from basically January 1st to March 1st, the	17	think, is will it harm the wells? And I don't know if
18	top green line is the actual daily production. No, I'm	18	you're qualified to speak to that. I know choking back
19	sorry. It's the second green line. As you'll see, it	19	wells sometimes does, but that's about the extent of my
20	leveled off at about 1,500 barrels a day.	20	technical knowledge on this subject.
21	The top green line I want to point to is	21	THE WITNESS: The only thing I've seen is
22	the oil cut. You'll see right there at the end, before	22	that we see a slightly lower oil cut as we continue to
23	we cut the well back for the allowable, the well had	23 24	slow the well down. So I wouldn't want to stay in that
24	actually was still increasing. We had gotten as high		mode, you know, forever, obviously.
25	as a 52 percent oil cut. And then you'll see right at	25	EXAMINER BROOKS: Any longer than
	Page 27		Page 29
1	March 1st where this well is on ESP.	1	necessary, right?
2	So the black line at the top, that's your	2	THE WITNESS: Right.
3	hertz, 65 hertz, 60 hertz. And then you'll see where we	3	Q. (By Ms. Kessler) And currently you mentioned
4	dropped the hertz to 43 on the well to dial it back.	4	you're choking back from approximately 1,500 barrels a
5	The big solid black line you see running	5	day to approximately 920?
б	across the graph, that's the current allowable, 920	6	A. 920 is the allowable, so we averaged 913 in
7	barrels a day. So you can see our production has	7	March.
8	come from the month of March, I think we averaged 913	8	Q. What is Exhibit 8?
9	barrels for the month of March.	9	A. So with regard to the Dinwiddie, this exhibit
10	The other thing I think that's	10	has the Dinwiddie production on it versus the White
11	significant and we talked with Paul about this, and	11	Falcon. It's the daily oil rate scale on the left. The
12	Anchor as well at the State Office is the GOR curve,	12	Dinwiddie well is noted in blue.
13	which actually kind of overlays that black allowable	13	You'll see the daily rate for the Dinwiddie
14	line. Even at the higher rates of production, the GOR	14	really never got above 10 barrels a day during the first
15	never changed. It stayed about 900. You know, we never	15	200 days of production. The EUR for the well is only
16	saw any kind of increase in gas, like we were pooling	16	projected to be about 11,000 barrels.
17	the well too hard.	17	Do you remember Randall's description about
18	EXAMINER BROOKS: Which exhibit are you	18	when it was originally sourced? Things were actually
19 20	looking at?	19 20	downdipped from where our sand pile is, so the water cuts higher. It's only about a 16 percent oil cut over
20 21	EXAMINER DAWSON: Exhibit 7.		
21	EXAMINER BROOKS: Seven? Okay, thank you.	21 22	here on the flank.
22	I'm sorry. Go ahead.	22	Q. And you're approximately 50 percent oil cut; is
23	THE WITNESS: So anyway, I think the big	24	that right A. We were at 52 percent before we cut it back.
25	takeaways for the White Falcon, you know, the level of productivity, for one, is substantial, sustained	25	So that's just to give you you know, we've got two
		1 22	ee and just to give you you know, we ve got two

## 8 (Pages 26 to 29)

	Page 30		Page 32
1	wells here in the same pool that have the same	1	application be in the best interest of conservation for
2	allowable. But it's major leagues and minor leagues.	2	the prevention of waste and the protection of
3	Q. What is Exhibit 9?	3	correlative rights?
4	A. So Exhibit 9 is really just to give you a point	4	A. Yes.
5	of reference? The Madera wells and the Rattlesnake	5	Q. And were Exhibits 7 through 10 prepared by you
6	wells that you were talking about earlier that are	6	or at your direction?
7	southwest of us, these are wells that are basically in	7	A. At my direction.
8	the same depth bracket as has been assigned to the White	8	MS. KESSLER: I would move admission of
9	Falcon.	9	Exhibits 7 through 10.
10	And this is a table of the production and	10	EXAMINER JONES: Exhibits actually, I
11	all the EUR projections for those wells. And if you'll	11	don't know if we've done 3 through 6.
12	just go to the very bottom of the table, it says,	12	MS. KESSLER: Then I would also move
13	"Brushy Basal Average." So the average EUR for all	13	EXAMINER JONES: Three through 10 are
14	those wells was about 270,000 barrels.	14	admitted.
15	Our internal reserve estimate for the White	15	[Exhibits 3 through 10 admitted.]
16	Falcon is a million two barrels. Their average oil cut	16	MS. KESSLER: Thank you.
17	is 22 percent. We're at 50 percent plus.	17	EXAMINER DAWSON: Mr. Sirgo, on your
18	So my point is that it's a different	18	request for 350 barrels of oil per day, that's like
19	animal, you know, even though we're all on the kind of	19	10,500 barrels per month?
20	same depth allowable and the same field rules, and	20	
20	they're all Brushy Canyon. You know, we're just in a	21	THE WITNESS: As per 40 acres.
22	unique situation.	22	EXAMINER DAWSON: Okay. That's going to be
23	•	23	sufficient, though, is what my question was.
23	Q. And turning to Exhibit 10, what is this	23	THE WITNESS: Right. It's a 1,400
	exhibit?	1	barrel-a-day rate. We saw a sustained 1,500
25	A. This exhibit you know, we have third-party	25	barrel-a-day rate. It keeps us below where we were
	Page 31		Page 33
1	engineers, just like everybody else. Nettle and Zulu	1	pulling the well out before and where the GOR was
2	are are our third-party engineers. Our internal reserve	2	state-wide.
3	assignment is a million two. Our third-party engineer's	3	EXAMINER DAWSON: So were there any wells,
4	assignment is this projection, and it's still over a	4	horizontal wells, south of you down there, in section
5	million barrels.	5	let's see, it's kind of hard to read these maps
6	So when you talk about allowable relative	6	section south?
7	to reserves, you know, 920 is not a lot. 1,400 is what	7	THE WITNESS: So the section due south of
8	we're asking for. For a million barrel well, you know,	8	us is the Third Bone Spring Well. If you'll look on the
9	it's kind of a modest withdrawal rate.	9	nomenclature, the green wells are brushies and the red
10	Q. What type of reservoir is this?	10	wells are Third Bone Springs.
11	A. It's a solution gas drive, about 42 gravity	11	EXAMINER DAWSON: Okay.
12	crude, 1,400 BTU gas; water is 100,000 plus fluorides,	12	THE WITNESS: So that's actually a Third
13	like you'd expect. You know, it's just a good	13	Bone Spring Well directly south of the White Falcon.
14	old-fashioned oil field.	14	EXAMINER DAWSON: Okay. That's quite a
15	Q. In your opinion, would increasing the depth	15	sand body there, huh?
16	bracket allowable from 230 to 350 barrels have a	16	THE WITNESS: Yep.
17	negative impact on this reservoir?	17	EXAMINER DAWSON: And you do on acres over
18	A. No.	18	to the southeast, too, right?
19	Q. Do you see any potential for damage?	19	THE WITNESS: Everything in hash areas
20	A. No.	20	belong to Endurance.
21	Q. Why is that?	21	EXAMINER DAWSON: Do you have any wells to
22	A. At that higher rate? Because we haven't seen	22	the southeast, in that patched area down there?
23	any drawdown in the wellbore as it relates to GOR. We	23	THE WITNESS: We have a Third Bone Spring
23	haven't been able to change it.	24	Well. It's labeled Jazzbass. We have a Third Bone
25	Q. In your opinion, will approval of this	25	Spring named the Coronado. We have a new Brushy labeled

## 9 (Pages 30 to 33)

	Page 34		Page 36
1	Moonlight Buttress. We have a Third Bone Spring labeled	1	THE WITNESS: And it's still sitting there.
2	Tele Delux, and multiple permits in process.	2	EXAMINER JONES: I noticed the decline on
3	EXAMINER DAWSON: That's all the questions	3	some of those other Brushies. I was at the Land Office
4	I have. Thank you.	4	with Anchor, and I did a bunch of declines on Brushies
5	EXAMINER JONES: You must have went to	5	versus Bone Spring. And some of the Brushies looked
6	school at Texas A&M.	6	like they had their behavior on the decline curve
7	THE WITNESS: No. I went to Tech, Texas	7	showed, to me, that they had actual porosity, instead of
8	Tech.	8	just fracture
9	EXAMINER JONES: Texas Tech?	9	THE WITNESS: Right. Their B factors
10	THE WITNESS: Yeah.	10	were you know, your curves were abated.
11	EXAMINER JONES: Doug Cotner went to Texas	11	Yeah. Good Brushy wells are typically,
12	A&M?	12	you have to deal with a lot of water. But this high in
13	THE WITNESS: Cotner went to A&M, yeah.	13	oil cut, though, it's not much different than the Bone
14	EXAMINER JONES: All right. It looks like	14	Spring Wells.
15	this business of having a 60-day-test allowable, Paul	15	EXAMINER JONES: And Anchor was probably
16	Koutz did a good thing here.	16	salivating over these wells?
17	THE WITNESS: Yeah, because it lets you	17	THE WITNESS: Yeah, he likes this well.
18	identify the things you would be most concerned about if	18	EXAMINER JONES: The limiting GOR of 2000,
19	you're pulling a well at that kind of rate, which is	19	you didn't ask for a change in that?
20	you know, we don't see a lot of the wells that can	20	THE WITNESS: Well, we've never seen above
21	sustain that kind of rate without either going high	21	900, so
22	ratio on your so it, you know, kind of ferreted out.	22	EXAMINER JONES: Okay. You actually would
23	And then, you know, we got past our load recovery, and	23	have had a little bit more than from your depth bracket
24	we've still had an increase in oil cuts. And there's	24	allowable. From the discovery well, you would have gone
25	not a lot of times you get a third-party engineer to	25	from 230 to 275; is that right?
	Page 35		Page 37
1	assign a million barrels to a 1-mile lateral, but it's a	1	THE WITNESS: Yeah. It would have been the
2	significant pile.	2	first well, yeah.
3	EXAMINER JONES: Yeah. That well is right	3	MS. KESSLER: So you're just asking for a
4	on the edge of the pool you're asking to change the	4	little more? I think you got the engineering covered,
5	depth allowable, and it's a good well. So that pool	5	and the geology. It looks good to me.
6	will be expanded probably to the west; is that correct?	6	EXAMINER BROOKS: Where is the Brushy
7	THE WITNESS: South and east and	7	Canyon production to this?
8	EXAMINER JONES: All around?	8	THE WITNESS: Well, we have a new well
9	THE WITNESS: Yeah. It's going to get	9	well, the Dinwiddie is almost three miles due
10	larger for sure.	10	east/southeast of it. That's the closest well. It's in
11	EXAMINER JONES: And what difference was	11	the pool.
12	this one? Except for the reservoir, was it the frac job	12	EXAMINER BROOKS: Yeah, that's in the pool.
13	or	13	THE WITNESS: That's in the pool. And
14	THE WITNESS: No. Actually, this frac was,	14	EXAMINER BROOKS: Where is the closest
15	you know, a fairly small frac by horizontal well	15	unrelated Brushy production?
16	standards. I don't even think we got the 2 million	16	THE WITNESS: Well, we have what we call
17	pounds of sand. In fact, way didn't want it to grow	17	our Moonlight Buttress Well that we just recently
18	very much, worrying about water and Brushy and those	18	completed. That's south of Dinwiddle about two miles
19	kind of items.	19	and west. That well is already up to about a 20 percent
20	EXAMINER JONES: Okay.	20	oil cut. It's already up to about a half a million
21	THE WITNESS: I think it's just because at	21	barrels EUR, which is why
22	the time of deposition, at the time of sourcing, you	22	EXAMINER BROOKS: Is that well going to be
23	know, you had a trap that created a really big oil	23	within a mile of this pool?
24	column.	24	THE WITNESS: It's not today. Well, I
25	EXAMINER JONES: That's a good trap.	25	guess the toe of it is, yeah.

## 10 (Pages 34 to 37)

Page 38		Page 40
AMINER BROOKS: I was going to say Paul	1	more.
t it in this pool if it's within a mile.	2	We have a lot of confidence in Paul. I'm
E WITNESS: Right. And you can pretty	3	hoping somebody shows he's wrong for some reasons. And
there will be a string of wells across that	4	that hasn't happened, to my knowledge.
	5	THE WITNESS: No.
AMINER BROOKS: No previously established	6	EXAMINER BROOKS: We would create a pool
yon production really close to this?	7	and give it a regular pool name, instead of a wildcat
E WITNESS: That Dinwiddie was the only	8	name. And that would be that's why I said
at Rattlesnake/Madera area to the southwest	9	practically. I don't want to make it harder to do that
miles.	10	because it's just a matter of recordkeeping. But
AMINER BROOKS: Okay, thank you.	11	recordkeeping does have some significance when you're
	12	the State and you're regulating things. I mean you want
his one, too.	13	people to know what the regulations are.
S. KESSLER: Oh, for the order?	14	I don't even know how Barrons operates,
AMINER JONES: For the order.	15	where they get their information from. We've had
AMINER BROOKS: Well, I think we need to	16	trouble internally finding out where pools are.
a little bit. First we can decide what we	17	Apparently that is in the process of getting solved.
but there's a danger of us getting lost here	18	But I was fairly relieved at some of the things I heard
is what I'm concerned about.	19	in that meeting yesterday, and I hope they're right.
	20	But I do think that I think the
	21	suggestion you made is a good one, that we could just
		put an order a temporary order for some period of
		time, and then give you a chance to reopen and
		re-notice.
IE WITNESS: Chevron, the Dinwiddie Well.	25	I was thinking there's really no rule that
Page 39		Page 41
AMINER BROOKS: Okay, I was thinking	1	says you have to give notice to everybody of an amended
	2	application. But if you extend that to a situation
	3	where the amended application, to use the words familiar
	4	to lawyers, brings in a new cause of action, so to
	5	speak, you're going to have a problematic practice.
	6	So I think your suggestion is a pretty good
-	7	one, that we do this as temporary order, then allow you
-	8	to reopen to do a nomenclature order, unless Paul gets
AMINER BROOKS: Yeah, I was thinking	9	around to doing it first. And I wouldn't count on the
I'd really like to do. Because I'm afraid	10	that.
-	11	MS. KESSLER: Mr. Sirgo, would Endurance be
	12	amenable to that suggestion?
	13	THE WITNESS: Sure.
· · · -	14	MS. KESSLER: The notice for this
	15	particular case was not particularly substantial, so I
E WITNESS: So in the nomenclature	16	don't think that should be a barrier to
vould you actually expand the boundaries at	17	EXAMINER BROOKS: It doesn't look like it
well?	18	was, that 15 cards, it looks like. No publications.
	1	EVANINED IONEC, Dreatically anadying the
AMINER BROOKS: We would create this	19	EXAMINER JONES: Practically speaking, the
AMINER BROOKS: We would create this	20	pool code should stay the same. So all it would be is
AMINER BROOKS: We would create this AMINER JONES: You could.		
	20	pool code should stay the same. So all it would be is
AMINER JONES: You could.	20 21	pool code should stay the same. So all it would be is changing the name from the long name that Paul Paul's
AMINER JONES: You could. AMINER BROOKS: whatever boundaries	20 21 22	pool code should stay the same. So all it would be is changing the name from the long name that Paul Paul's code to the
	AMINER BROOKS: I was going to say Paul it it nitis pool if it's within a mile. IE WITNESS: Right. And you can pretty a there will be a string of wells across that AMINER BROOKS: No previously established yon production really close to this? IE WITNESS: That Dinwiddie was the only at Rattlesnake/Madera area to the southwest miles. AMINER BROOKS: Okay, thank you. AMINER BROOKS: Okay, thank you. AMINER BROOKS: Okay, thank you. AMINER BROOKS: Okay, thank we AMINER JONES: I think we need to discuss his one, too. S. KESSLER: Oh, for the order? AMINER BROOKS: Well, I think we need to a little bit. First we can decide what we but there's a danger of us getting lost here is what I'm concerned about. one option would be to put a provision acial provision will continue only until pool is created, including this area. That ne monkey on Endurance, which is the only this pillow right now, right? IE WITNESS: Chevron, the Dinwiddie Well. S. KESSLER: So Mr. Examiner, something Id consider doing would be to ask for an for the allowable for the expansion of le, and then Endurance could reopen this case nclature hearing, and that burden would be on if that's something (AMINER BROOKS: Yeah, I was thinking I'd really like to do. Because I'm afraid o this, like I was saying, and we don't put ation on this order, that it's going to get here. And when an order of this type gets we to pop up at a time and in a place ates headaches for people. IE WITNESS: So in the nomenclature	AMINER BROOKS: I was going to say Paul t it in this pool if it's within a mile. IE WITNESS: Right. And you can pretty a there will be a string of wells across that AMINER BROOKS: No previously established yon production really close to this? IE WITNESS: That Dinwiddie was the only at Rattlesnake/Madera area to the southwest miles. AMINER BROOKS: Okay, thank you. AMINER BROOKS: Okay, thank you. AMINER BROOKS: Okay, thank you. AMINER JONES: I think we need to discuss his one, too. S. KESSLER: Oh, for the order? AMINER BROOKS: Well, I think we need to sa a little bit. First we can decide what we but there's a danger of us getting lost here is what I'm concerned about. pool is created, including this area. That pool is created, including this area. That pool is created, including this area. That pool is created, including this area. That the wiTNESS: Chevron, the Dinwiddie Well. <b>Page 39</b> CAMINER BROOKS: Okay. I was thinking urs, but I didn't look at the exhibit. S. KESSLER: So Mr. Examiner, something if or the allowable for the expansion of le, and then Endurance could reopen this case nclature hearing, and that burden would be on if that's something (AMINER BROOKS: Yeah, I was thinking I'd really like to do. Because I'm afraid to this, like I was saying, and we don't put ation on this order, that it's going to get here. And when an order of this type gets de to pop up at a time and in a place ates headaches for people. HE WITNESS: So in the nomenclature 16

# 11 (Pages 38 to 41)

	Page 42
1	Barrons would pick it up, I wouldn't be too concerned
2	about it, but I don't know how Barrons operates.
3	And Barrons, I gather from some things I've
4	heard, that Barrons is kind of a mom-and-pop-type
5	outfit. It's not a big institutional publisher. Not
6	that that necessarily guarantees not that the latter
7	necessarily guarantees accuracy.
8	EXAMINER JONES: We have a computer table
9	that has special rules in it, you know, for any pool.
10	And the code is keyed in there, so everything should be
11	okay. But that's a good point about Barrons.
12	EXAMINER BROOKS: If you get an error in
13	
	Barrons a lot of people rely on Barrons, including
14	
15	EXAMINER JONES: Okay. So we can take this
16	one under advisement and then
17	EXAMINER BROOKS: Yes, let's take it under
18	advisement. And Ms. Kessler can reopen it if we
19	enter an order that establishes these pools only for a
20	temporary purpose, then Ms. Kessler can reopen it to
21	extend and designate a specific pool.
22	EXAMINER JONES: Okay. With that, we'll
23	take Case Number 15465 under advisement and an expedited
24	order in that case.
25	[The proceedings concluded at 2:07 p.m.]
	Page 43
1	STATE OF NEW MEXICO.
2	COUNTY OF BERNALILLO
3	
4	
5	
6 7	
8	
	REPORTER'S CERTIFICATE
9	
10	I, DEBRA ANN FRIETZE, New Mexico Certified Court Reporter No. 251, do hereby certify that I reported the
11	foregoing proceeding in stenographic shorthand and that
	the foregoing pages are a true and correct transcript of
12	those proceedings and was reduced to printed form under
13	my direct supervision.
14	I FURTHER CERTIFY that I am neither employed by nor
	related to any of the parties or attorneys in this case
15	and that I have no interest in the final disposition of
16	this case.
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24 25	
20	

12 (Pages 42 to 43)