IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NORTH DAKOTA
EASTERN DIVISION

Turtle Mountain Band of Chippewa Indians, Spirit Lake Tribe, Wesley Davis, Zachary S. King, and Collette Brown,

Plaintiffs,

vs.

Michael Howe, in his official capacity as Secretary of State of North Dakota,

Defendant.

REMOTE DEPOSITION OF
Loren Collingwood
Taken March 6, 2023
Commencing at 10:00 a.m. CST

Exhibit 38

REPORTED BY: CHRISTA A. REESER, RPR, CRR, CRC

Remote deposition of Loren Collingwood taken on Monday, March 6, 2023, commencing at 10:00 a.m., CST, before Christa A. Reeser, Registered Professional Reporter, Certified Realtime Reporter, Certified Realtime Captioner, and Notary Public of and for the State of Minnesota.

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LOREN COLLINGWOOD,
duly sworn, was examined and testifies as follows:

MR. PHILLIPS: And I'm David Phillips, I'm representing the defendant in this case, Secretary of State, Michael Howe.
MS. DANAHY: Molly Danahy with Campaign Legal Center, and I represent the plaintiffs in this case, Turtle Mountain, et al.
MR. GABER: Mark Gaber for the plaintiffs.
MR. CARTER: Michael Carter for the plaintiffs.
MS. KELTY: Samantha Kelty for the plaintiffs.
MR. PHILLIPS: Was there one more?
MS. NESWOOD: Allison Neswood for the plaintiffs.

EXAMINATION
BY MR. PHILLIPS:
Q. Dr. Collingwood, could you please state your name and address for the plaintiffs?
A. Loren Collingwood, 1 Tierra Monte Drive Northeast, Albuquerque, New Mexico 87122.

Q. Thank you.
Again, I'm David Phillips. We have met before, but I'm representing the defendant in this case, the Secretary of State.
I assume you've had your deposition taken before?
A. Correct.
Q. How many times have you had it taken before?
A. I think about six.
Q. Super brief recitation of the rules then. We'll both try not to talk over each other. I'll wait until you finish before I start asking the next question and just ask that you wait until my question is done before you answer. Just make sure I get verbal responses instead of head shakes.
And just let me know if you'd like to take a break. We'll probably take regular breaks, but if you need one, let me know, and as long as there's not a question pending, we can break.
Now, because this is done by Zoom, I just want to ask a few things about your setup. Is there anyone else physically with you in the room today?
A. No.
Q. And you have, obviously, Zoom open right now that you're looking at me on. Do you have any other

windows open on your computer?
A. No, I've shut everything down.
Q. Any other tabs?
A. No.
Q. Okay. Do you have any chat apps open on your computer?
A. No.
Q. And you mentioned before we went on the record that you don't have your phone with you; is that correct?
A. It's in another room.
Q. Are you on any medications that would impact your ability to understand my questions or give complete and accurate testimony today?
A. No.
Q. Are you aware of any other factors that might make it difficult for you to understand my questions or give complete and accurate testimony today?
A. No.
Q. Did you bring anything with you today, any documents or materials?
A. I have my initial report and rebuttal report printed with no markings, and also my ND-4 report also printed with no markings.
Q. ND-4, that's referring to the Walen case?

1 A. Correct.
2 Q. Thank you.
3 I'm sharing a screen right now. Are you able
4 to see what's been marked as Exhibit 32?
5 A. Yes.
6 Q. And this appears to be your CV that you
7 produced in this case; is that correct?
8 A. It looks like it.
9 Q. The CV that you produced in -- I believe in
10 response to our subpoena, is that a complete and
11 accurate updated CV?
12 A. It certainly was as of the time of the
13 subpoena. There might have been a couple minor changes
14 since then, but I don't think so.
15 Q. Do you know what those minor changes might be,
16 offhand?
17 A. Maybe an update in one of my expert witness
18 jobs since -- you know, I may have been deposed or
19 written a report since then for another case. Or if
20 you scroll down one page, I can tell you if I have an
21 updated -- yeah, so then I also have an additional
22 journal article for an even 40.
23 Q. What -- what article is it that you would add
24 to this?
25 A. It's an article with Benjamin Gonzales O'Brien

1 and Michael Paarlberg, the topic is on sanctuary
2 cities.
3 Q. Not related in any way to redistricting?
4 A. Exactly. It's not -- not at all.
5 Q. All right. I'm scrolling down to page 16 on
6 your CV. And I think you had mentioned that you may
7 have an update in the cases that you've worked on. And
8 maybe just take a look at this page. Does this -- and
9 I can zoom in here for you, just give me a second.
10 Does this help you?
11 A. Yeah, there is an additional case in Texas,
12 Dixon -- with an X -- v. LISE. It's a Louisville
13 Independent School District.
14 Q. And when did you get retained to work on that
15 case?
16 A. I think late 2022. Yeah, so I think my report
17 was due then I think shortly after my initial report in
18 this case, or something.
19 For some reason, lawyers always want to screw
20 up my holidays, you know, so it gets kind of hectic for
21 me around then.
22 Q. We make the same complaint but about courts and
23 judges.
24 A. Right. Pass it on.
25 Q. It's a pass-through system.

1 Okay. And then you said -- did you say in this
2 new case, this Texas case, that you have prepared a
3 report?
4 A. Correct. A report and a rebuttal report.
5 Q. What's the nature of that case?
6 A. It's an at large -- at an-large school
7 district, and plaintiff is I think angling for a single
8 member.
9 Q. And so with the addition of that case that you
10 just talked about and the list that you're looking at
11 on page 16, is that a complete list of the expert work
12 that you've done?
13 A. I'm pretty sure. I might need to go through my
14 notes later and get back to you, but I'm pretty sure.
15 Q. And to be clear, is this cut off by date? It
16 goes down -- it looks like the last -- or the earliest
17 is in 2011. Is that the earliest work that you were
18 serving as an expert, or is this cut off at a certain
19 date just for space?
20 A. That's correct, this goes to the earliest date.
21 Q. The cases that you see here and also the
22 additional Texas case that you told me about, is your
23 work in those cases, in all cases, for the plaintiff?
24 A. Well, as you know, the Walen case we were, I
25 guess, intervener. I guess that might be qualified

1 differently. But otherwise, yes.
2 Q. And other than -- okay. Other than that case,
3 are you opposed to a governmental party?
4 A. Sorry, could you restate that?
5 Q. Sure. So in a lot of election cases, right,
6 there's an election official or some sort of government
7 official that's the defendant, or the government itself
8 is the defendant. In all cases, are you opposed to a
9 government official or government entity?
10 A. Well, some of the -- some of the work I've
11 done, which is listed here and above, is maybe there
12 wasn't litigation or it was, say, a consulting expert
13 for -- on behalf of a governmental party. So I've done
14 both. And as I was speaking, I -- looking at the CV
15 here, another -- another case comes to mind, which is
16 Soto Palmer v. Hobbs, which is Washington state in --
17 of the most recent redistricting cycle.
18 Q. And have you done a report in that case?
19 A. Yes.
20 Q. And I think you said that is a redistricting
21 case?
22 A. It is.
23 Q. Of the -- so we have that one, and then in
24 addition what other cases on this list that we're
25 looking at on page 16 are redistricting cases?

A. The first one, Lower Brule, is -- it's related to redistricting. Obviously, the Walen case; the Rivera, et al, case; the Pendergrass, Raffensperger case; Johnson, et al; also East St. Louis; and then East Ramapo.
Q. Okay. Any others?
A. Not that I can think of.
Q. And in that -- in that other one that you did in North Dakota, we deposed him, apparently his name -- everyone in the case was saying Walen all along. When we deposed him, it's Walen.
A. Walen.
Q. So I'm going to have to change my own state of mind on that. So anyways, thought I'd mention it. I'll know what you mean.
A. So long as we get to say "gerrymandering."
Q. Fair.
And I believe you've already said this, but the only other case that you've worked on in North Dakota, other than the one we're here for today, would be the Walen case, correct?
A. Correct.
Q. I'm not going to go through your experience in detail on your CV, but just to be clear, is your CV a complete account of your education, training and

experience that you're relying on as the basis of your opinions in this case?
A. Yes.
Q. Is there anything else you'd like to mention omitted from your CV that I should be aware of?
A. No.
Q. How did you originally become involved in this lawsuit, this Turtle Mountain case that we're here for today?
A. NARF, Native American Rights Fund, I think I became acquainted with a couple of their attorneys maybe in 20 -- late 2020, and they were looking for someone to do racially polarized voting consulting. And I've done a lot of that. And so I started doing racially polarized voting, or RPV for short, which I'm sure you're familiar with that term. So for the record, we can just use RPV moving forward. And so there were a couple areas, I believe, that I was asked to look into, and one was this area in North Dakota. I don't know --
Q. Let's back up one second. I'll get a little bit more to the specific case.
Just you had mentioned that in late 2020, NARF was looking for RPV experts? Do I understand that correct?

A. Yeah, I think it was, like, maybe September 2020. It could have been 2021. Might have been 2021.
Q. And did somebody reach out to you directly?
A. Yeah, I think I got an e-mail or something. I mean, I think the way these things work is people talk to other experts that they know and they say, hey, can you do this, and they say no, I'm too busy, but check out Loren Collingwood. And then I get an e-mail. So -- or they just do research on either cases I've worked on or articles I've written that seem pertinent and then they contact me. So that happens pretty regularly.
Q. Your -- being an expert isn't your only job, right?
A. Right. I'm a professor.
Q. How much of your time do you spend -- we'll say, you know, from late 2020 to the present, how much of your time do you spend performing services as an expert in litigation?
A. Well, that's hard to put a number on it. It's certainly taken up a fair amount of nights and weekends I'd say. But quite a bit. I've been doing, you know, consulting, whether expert or other types, for 15, 20 years. So I've always kind of had that work that I do in conjunction with my academic work.

Q. When you initially had contact with NARF, tell me how that went. Did you have conversations with them? Did you exchange e-mails?
A. I think most of it was via phone, or I think we were trying to use, you know, Zoom or something. We weren't that good at that yet. And it -- it was probably related to other -- other areas, not initially North Dakota. And then I think maybe late 2021, early 2022 they asked me to begin developing a report with a response -- with respect to ND-9.
Q. Did you ever attend a training seminar put on my NARF, either as a presenter or as an attendee?
A. No. I was familiar that they had one I think in summer 2021. One of my associates somewhere I think might have attended one, but I didn't go.
Q. Do you know which associate that is?
A. I think it would be Dr. -- what's her name -- Sarah Sadhwani who is a professor out in California, and she studies I think Asian Americans and potentially also, you know, Native Americans.
Q. Have you ever helped prepare materials to be used by NARF in these types of presentations or seminars?
A. No.
Q. Are you familiar with Dr. Matt Barreto?

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1 A. Very familiar with Dr. Matt Barreto.
2 Q. How so?
3 A. He was my dissertation advisor.
4 Q. Other than that, have you had interactions with
5 Dr. Barreto?
6 A. Well, we used to play pick-up soccer when I was
7 a grad student and we -- we write articles together.
8 Yeah, I mean, I -- I'm in pretty close contact with
9 Dr. Barreto.
10 Q. What about Dr. Weston McCool? Are you familiar
11 with him?
12 A. Only through this case really.
13 Q. Have you talked to Dr. Weston McCool about this
14 case?
15 A. No.
16 Q. Have you read his report?
17 A. No.
18 Q. Are you familiar with Dr. Dan McCool?
19 A. Well, maybe I'm getting these two people
20 confused.
21 Q. I -- just to let you know, so my understanding
22 is Dr. Weston McCool is the dad and Dr. Dan McCool is
23 the son, if that helps.
24 A. Okay. Yeah, I didn't -- I didn't know that. I
25 mean, with a name like McCool, how many can there be?

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1 So -- rarely do I find a surname better than mine, and
2 that is probably one of them. So when I said that I
3 was familiar with him, I think I was -- I think it's
4 Dan McCool is the one I'm familiar with, but I --
5 actually now at this point, I don't know.
6 Q. Do you remember reading either of their reports
7 in this Turtle Mountain case?
8 A. No, I haven't seen those.
9 Q. Have you ever worked for an organization called
10 Campaign Legal Center before?
11 A. Yes.
12 Q. And in what context?
13 A. As an expert.
14 Q. Do you know which cases that was for?
15 A. Well, this case. And I think they're involved
16 in the Walen case and the Rivera case and Johnson, et
17 al.
18 Q. Just so the record is clear, I'm showing you
19 now again that page 16 of your CV. Are there any
20 others that you can think of or that you see on this
21 list?
22 A. No.
23 Q. Are you familiar with the Lawyers Committee for
24 Civil Rights Under Law?
25 A. Yes.

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1 Q. Have you ever done any work for that
2 organization?
3 A. Yes.
4 Q. In what context?
5 A. I was an expert for them.
6 Q. In which cases?
7 A. The East St. Louis Branch NAACP v. Illinois
8 State Board of Elections.
9 Q. All right. Any others?
10 A. No.
11 Q. Are you familiar with James Tucker or sometimes
12 goes by Jim Tucker?
13 A. Yeah, I think so.
14 Q. Tell me about that. How do you know him?
15 A. I think he might have been on -- I think NARF
16 might have been looking to work with him on a case that
17 I was maybe going to be an expert on. I don't know if
18 that was this case or another state.
19 Q. Do you remember actually working with him on
20 any case though?
21 A. I might have worked with him a little bit on
22 this East St. Louis case, but I -- he wasn't the main
23 point person. He might have been on a call. I truly
24 don't remember. He may have been on a call on
25 something else, but I honestly -- again, I don't

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1 recall.
2 Q. Did you have any involvement with -- let me
3 back up a second.
4 So North Dakota did its redistricting process
5 in late 2021, right? And there -- correct?
6 A. Oh, that sounds right.
7 Q. And there were some proposed maps and other
8 materials submitted to our legislature by witnesses.
9 Did you have any role in preparation of any exhibits,
10 testimony or anything else that was submitted to the
11 North Dakota legislature during the 2021 redistricting?
12 A. I don't think so. I'm pretty sure I did not.
13 But I can't say 100 percent, but I'm pretty sure no.
14 Q. Is there a way that you -- how would you find
15 out the answer to that if you were to look?
16 A. Well, I suppose it's possible that if -- you
17 know, there might be in the record, like, a memo from
18 me that examines racially polarized voting in some of
19 these areas. I don't think I did that. I did that in
20 a couple other states, like Montana, for example.
21 And -- or it could be that someone presented something
22 that said "and these data were prepared by Loren
23 Collingwood." So, you know, kind of looking in the
24 record. But I'm almost a hundred percent sure I was
25 just not involved in any of that.

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1 Q. As we sit here today, you don't have an
2 independent memory of it, correct?
3 A. Not at all. Not at all.
4 Q. Thank you.
5 Are you being paid -- I think I wrote down 325
6 an hour; is that correct, in this case?
7 A. That's right.
8 Q. And does that include all of your work
9 including the work that you've -- the analysis that you
10 performed and the testimony that you are performing and
11 will perform in this case?
12 A. Yes.
13 Q. Is that the same rate that you charge in all of
14 your cases that you work on as an expert?
15 A. No.
16 Q. Is there a reason you charge differently in
17 different cases?
18 A. I think NARF got me a little bit sooner than
19 other people.
20 Q. That's fair. So in some other cases, you do
21 charge more?
22 A. Yes.
23 Q. That's another problem that lawyers have in
24 common.
25 All right. Can you see my screen now? I'm

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1 sharing Exhibit 33.
2 A. Yes.
3 Q. And this appears to be an invoice from you in
4 this case that we're here for today; is that correct?
5 A. Correct.
6 Q. And I believe this was produced in response to
7 our subpoena. And it has an invoice date of May 22,
8 2022.
9 Do you see that?
10 A. Yes.
11 Q. Is this invoice complete and accurate for
12 everything that you did on this case, you know, on or
13 before May 22, 2022?
14 A. Yeah, this is -- this is what I billed, this is
15 what I did.
16 Q. There's nothing else that you did on this case
17 that's not reflected in this invoice, at least up to
18 May 22, 2022?
19 A. Right. Up to that date, that's correct.
20 Q. And I'm now showing you what's been marked as
21 Exhibit 34. This is another invoice that has an
22 invoice date of December 15, 2022. I'll ask the same
23 question: Does this reflect everything that you did on
24 this case I guess between the two invoice dates from
25 May 22nd to December 15, 2022?

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1 A. Yes, it does.
2 Q. There's nothing that you worked on in this case
3 in that interim that is unreflected on this document?
4 A. No.
5 Q. Were the amounts on these two invoices paid?
6 A. Yes.
7 Q. And it's billed to Matthew Campbell at Native
8 American Rights Fund. Is it your understanding that
9 NARF is the one -- the entity paying the bills in this
10 case?
11 A. I think maybe when there's maybe two groups or
12 multiple groups are splitting it, that sort of -- you
13 know, in a sense I don't care if that happens or
14 doesn't so long as I get paid. So, yeah, I mean,
15 that's who I bill.
16 Q. In this case, you don't know if anybody else is
17 splitting the payment of your fees?
18 A. Not a hundred percent. I can just assume it.
19 Q. I don't believe I received any other invoices
20 in response to our two subpoenas. Are there any other
21 invoices in existence that you've sent out in this
22 case?
23 A. Not that I've sent out.
24 Q. Presumably you've done some work on this case,
25 just haven't billed it yet; is that fair?

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1 A. That's correct.
2 Q. Do you know how much time you've spent on this
3 case after December 15, 2022?
4 A. If I had to ballpark, between probably 20 to 30
5 hours, something like that.
6 Q. I understand you're not going to know this
7 entirely off the top of your head, but ballpark, that
8 20 to 30 hours, how have you spent that time?
9 A. Well, obviously this, the deposition; a little
10 bit of deposition prep; reading, you know, some
11 reports; writing -- writing the rebuttal report and
12 doing additional analysis for that. Those types of
13 things.
14 Q. About how much time have you spent preparing
15 for this deposition?
16 A. Probably about three or four hours maybe.
17 Q. What did you do to prepare?
18 A. I think I had one or two calls with counsel and
19 read some reports and reviewed some deposition
20 transcripts. That's -- drank some coffee this morning,
21 maybe an extra cup.
22 Q. So you mentioned you'd read some deposition
23 transcripts. Do you recall which ones you read?
24 A. Yeah, I reviewed Dr. Hood's transcript.
25 Q. Any others?

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A. No.
Q. In your work on this case, have you reviewed any -- other than your preparation for this depo, have you reviewed other transcripts?
A. No.
Q. And you mentioned you had one to two talks with counsel. Does that mean the attorneys for NARF?
A. I think in this case it was CLC.
Q. Do you know when you had those calls? In preparation for the deposition, to be clear.
A. Yeah, I mean, I think I had one late last week, maybe Thursday or Friday, and then around the time my rebuttal was due, because I think I was scheduled to have a deposition in a similar time initially but then that got postponed.
Q. And I'll back up just a second. When is the first time you talked to counsel in this case?
A. About this case or just talked to them in person -- or via Zoom or something?
Q. We'll just say about this case, however the method.
A. I think in December 2021. But it might have been a little bit earlier as the North Dakota maps were making their way through. It might have been around then. I just can't say for sure.

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Q. And how many times have you talked to them total then since around December 2021?
A. About this case, maybe six -- six-ish, eight-ish.
Q. Does that translate into a rough number of hours total?
A. Yeah, probably. Yeah.
Q. Okay. Could you maybe give me your best estimate of the total number of hours?
A. Maybe five, you know, because the calls are often 30 minutes, not an hour.
Q. Did the plaintiffs' attorneys in this case send or provide you any data or facts that you used in your opinion in this case?
A. Yes.
Q. And what is -- what facts or data?
A. I got some shapefiles for, like, the demonstrative maps, and I got a variety of, like, Maptitude maps and PDFs of different district configurations and things. I got a -- I think I got a shapefile of some Texas maps. There's probably some other things that will come to light, I just -- it was -- you know, that sounds about right. And then most of the data I was just collecting myself. I try to do that, but sometimes I don't have the software or

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something.
Q. That's fine. And if -- I do want to make sure I've got as complete a list as you have memory to day. So if we move on and you think of another one to throw in, do feel free to update your testimony and let me know what those additional things are.
The -- to be clear, the shapefiles that they sent you, do you know how the attorneys got those shapefiles?
A. No. No, I don't.
Q. And you said as well that there are Maptitude maps. Are those -- were those all in PDF form, or were they in some sort of Maptitude file format?
A. I think they're all kind of PDF type documents of kind of blown-in areas. You know, a couple different configurations of different plans and stuff like that. Yeah, I think -- I don't think I -- from those I have any specific outcome shapefiles and stuff like that.
Q. Do you have access to the Maptitude software yourself?
A. Not -- not for North Dakota.
Q. Did you personally use Maptitude at all in your analysis in this case?
A. Not in North Dakota.

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Q. So not in this case at all?
A. Correct.
Q. The -- you're -- we'll get to the details of your report in a bit, but just a question here: Your initial report had two demonstrative maps, correct?
A. Correct.
Q. Did you generate those maps or were those maps provided to you by the attorneys?
A. The attorneys provided me shapefile and then I generated the maps.
Q. And how did you generate the maps?
A. Oh, I just use R, which is a stats statistical program.
Q. And that will generate an actual graphical map?
A. It can order you a pizza. So R can do pretty much anything. Sorry.
Q. All right. And I'll move on, but just to make sure that you haven't thought of anything else in the meantime. Other than the shapefiles and the Maptitude maps that were provided to you, can you think of anything else that was provided to you by the attorneys that you used in your opinion in this case?
A. I do recall one thing, which is I think a -- like a crosswalk file. I think it's for the LD-15 district.

Q. Okay. And what is a crosswalk file?
A. That lines up, in this case, precincts in -- precincts in one format, like they have a certain name, and then precincts in another, say, database have a different name. And so in this case, manually lining them up so this precinct equals that one, even if they have different names. And then you can use that to join different types of data together that are required for conducting some of the analyses that I did.
Q. I'm not a scientist, so maybe I'm using the wrong word, but the way I would think of that is reconciling two different lists. Is that a fair word to use?
A. Yeah. Yeah, that's about right.
Q. Just give me one moment here.
A. No worries.
Q. Okay. Can you see my screen again here? It's showing Exhibit 35.
A. Yeah.
Q. And don't worry, Dr. Collingwood, I don't have some amazing gotcha questions about this one. I just wanted to try to read the handwriting and understand what this is. So I'll just ask you right up -- what is this document that we're looking at, Exhibit 35?
A. These are notes from a call that I had with

counsel in late 2021. Yeah, so that's pretty much what that is.
Q. You said with counsel. Who would that be?
A. It -- I don't know exactly who was on the call. So I could -- my guess is Mr. Carter, Ms. Kelty, and maybe Mr. Gaber, and probably Ms. Neswood.
Q. And let's -- thank you.
Let's just walk -- and to be clear, it has 12/15/2021 in the upper right-hand corner. Does that mean this is when the call took place?
A. I hope so. If I get my dates right, yes, that would be that.
Q. Now, below that, it says, I believe, Mid January. Am I reading that right?
A. Ooh, that's bad writing, but, yeah, that looks correct.
Q. What does that mean?
A. I think the -- often with calls, there's, like, hey, can you have some initial analyses around this certain time. That's my guess is what that means.
Q. And on the left-hand side on that same area, there's a red box that says NARF North Dakota and it has a list of three things under that. What are those three things?
A. The first one is putting together a complaint.

Q. And what is -- let's just stop right there. What does that mean?
A. I think that would be plaintiffs' sort of initial filing of some sort of legal violation. It starts to get a little bit outside of my, you know, legal comfort zone, but that's my general understanding. Basically the allegations, I believe.
Q. If I'm -- I believe the next line says Plaintiffs' Identified; is that accurate?
A. Yes.
Q. And what does that mean?
A. I think for a complaint you need to have specific individuals who are bringing the complaint. So that's probably what that means is people have come forward.
Q. And just to be clear, do you have an independent recollection of what this means or is this your best guess at this point?
A. I mean, all of this is my best guess. You know, this was a while ago and -- yeah.
Q. That's fair.
What about the next line? What does that say?
A. Here, is to examine 9A and 9B discretely in terms of, you know, in the analysis.
Q. Now, you used the word "discretely." What does

that mean?
A. I think the plan here was to do a separate, basically electoral performance analysis for just the precincts in 9A and just the precincts in 9B.
Q. And to be -- and to the extent you remember, is this direction that you were given by the attorneys in how to go about forming your opinion? Or is this your plan of action that you intended to put forth yourself?
A. I don't recall. I mean, most of the time it's -- I hear about what's going on and I make notes as to what I want to do based on suggestions but also based on my kind of understanding of what makes the most sense. So that sort of -- most likely that -- that's just me saying this is what I'm going to do.
Q. Now, in the blue section below that, it looks like a calendar, but you've kind of written notes in there instead. Let's just start -- what does it say there at the top and what does it mean? It looks like emphasize, but --
A. Right. I wanted to try to -- you know, in these types of analyses, if possible, you want to examine how different Native American candidates, in this case -- other cases you might look at Hispanic candidates, say you're in the southwest or something. And so you want to see if -- how they do, particularly

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1 try to maybe delve a little deeper into those contests.
2 So that's what that would be. These are -- Chase Iron
3 Eyes and Ruth Buffalo are two Native American
4 candidates that ran statewide I think in 2016.
5 Q. And the Iron Eyes and Buffalo races, did you
6 learn about those races from the attorneys for
7 plaintiff?
8 A. I can't recall. I know I always ask, you know,
9 what -- are there candidates of a particular group
10 running, and they might have told me. That's most
11 likely the case.
12 Q. Do you have a specific recollection either way?
13 A. No.
14 Q. And I think the next line says one won, the
15 other didn't; is that right?
16 A. Yeah, it looks like that. I mean, we can see
17 on my -- that's probably related to -- you know, they
18 both lost statewide, but -- so maybe me writing about
19 the particular jurisdiction that we're looking at. I
20 just can't recall.
21 Q. And it says proper remedy after that. What
22 does that mean?
23 A. Honestly, I don't know.
24 Q. The next line says, I believe, focus on two
25 subdistricts. And I think it says losses too close.

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1 Is that correct? So whether that's correct or not,
2 what does that mean?
3 A. That relates to the 9A, B, focusing on the
4 subdistricts. And then losses too close, loses too
5 close. I can only guess it relates to Iron Eyes in one
6 or two of those areas or the full district, I can't
7 recall.
8 Q. And --
9 A. -- arrow.
10 Q. I'm sorry, go ahead.
11 A. Because of the arrow.
12 Q. A little bit further down, it says proposed
13 combine district.
14 Do you see that?
15 A. Yeah.
16 Q. What is that referring to?
17 A. I think that relates to the demonstrative plan.
18 Q. Is it -- again, the two demonstrative plans,
19 did you formulate those yourself or were those plans
20 provided to you by counsel?
21 A. It -- I had nothing to do with the creation of
22 the demonstratives.
23 Q. Next, it talks about the 2016 Tax Commission
24 race.
25 Do you see that?

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1 A. Yes.
2 Q. Why is that listed here?
3 A. Hunte-Beaubrun was another Native American
4 candidate I think that -- that is identified. So I
5 have the other two and then -- and then this
6 individual. So I think it was just, you know,
7 additional reference to another candidate, Native
8 American candidate.
9 Q. The Beaubrun, Buffalo and Iron Eyes, were all
10 of those elections or candidates that you included in
11 your analysis in this case?
12 A. Yes.
13 Q. And I recognize state house RPV, but what
14 else -- what else does it say there at the end?
15 A. Native candidates in 2011 District 15.
16 Q. Any idea what that means?
17 A. I think that means look at the -- I think there
18 maybe were some Native candidates running in the
19 previous District 15, but I don't -- I don't know for
20 sure. Like, look at -- look at how those candidates
21 might have done in the previous district, but -- I --
22 yeah, maybe that, but I honestly don't -- don't really
23 know.
24 Q. This one, as we mentioned earlier, is from
25 December 15, 2021. Is this the first -- as far as you

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1 know, is this the first call that you had with
2 plaintiffs' counsel, or would you have talked to them
3 earlier than this?
4 A. I think this -- it's certainly around here. At
5 least with respect to, like -- there might have been
6 another call where we were talking about another state,
7 like Montana or somewhere, and someone mentioned, hey
8 by the way, I think this is something coming down the
9 line. Could have -- could have certainly have
10 occurred. But this was a little bit more, like, okay,
11 this is -- you know, we're going to pursue this. I
12 think -- I think so.
13 Q. The -- you mentioned a moment ago that you
14 didn't have anything to do with the creation of the
15 demonstrative plans; is that a fair statement?
16 A. Yes.
17 Q. And have you -- did you have e-mails between
18 you and counsel where information about the proposed
19 maps were sent to you?
20 A. Yes, I think so.
21 Q. Have those been produced pursuant to our
22 subpoena?
23 A. That's my understanding, yes.
24 Q. Do you have anything else in terms of
25 communications with plaintiffs' counsel about the

1 proposed plans, so text messages, you know, notes, any
2 other documentation that exists about those
3 communications?
4 A. No.
5 Q. It's all been provided pursuant -- everything
6 that exists has been provided pursuant to the subpoena;
7 is that correct?
8 A. Correct.
9 Q. I'm switching over to Exhibit 36. This appears
10 to be another call sheet. It says North Dakota call at
11 the top.
12 Do you see that?
13 A. Yeah.
14 Q. And this one says, in the upper right-hand
15 corner, it looks like January 18, 2022. Is this call
16 -- is this reflective of a call that took place on that
17 date?
18 A. Yes.
19 Q. Do you know who was on that call?
20 A. I can't off the top of my head, but probably
21 the same group of attorneys I mentioned previously,
22 Mr. Carter; maybe Ms. Kelty, but I don't recall; then
23 Ms. Neswood likely would have been there; and Mr. Gaber
24 may or may not have been there, he might have been
25 caught up in something else, I don't recall.

1 Q. Now, there's a green box and a blue box in the
2 upper right-hand corner there with some writing on
3 this. This, I'm totally lost on the handwriting. What
4 does that say?
5 A. You can't read that?
6 I think it just says star Native performance.
7 Like, an asterisk in a table or something. Just so you
8 can -- yeah.
9 Q. I'm sorry, I cut you off. Go ahead and finish.
10 A. Just so you can, like, see them in the results
11 or something more clearly, you know.
12 Q. That's just a note to yourself to do that?
13 A. Yeah. And then it says numbers on plot.
14 That's just a visual -- the visual thing in terms of
15 graphics. 2014 into D9, 9A, 9B. I think -- yeah, so
16 that's what that says.
17 Q. We'll get to your report a little bit later,
18 but on -- if memory serves, I think you have a Table 1
19 where the Native American candidates had a little star
20 by them. Is that what this note is referencing, this
21 note in the green box?
22 A. Yeah, I think in a general rule to all that.
23 Yeah.
24 Q. And 2014 into D9, 9A and 9B, is that in
25 reference to what I'm going to refer to as a functional

1 analysis? Is that a fair way to describe that note?
2 A. That sounds right.
3 Q. Let's make sure we're using the same
4 terminology. What do you consider a functional
5 analysis?
6 A. It's -- I use the term electoral performance,
7 but really it's just how a district or a proposed
8 district -- what the election outcomes would look like
9 with previous election data.
10 Q. As we move forward, my mind is almost certainly
11 going to go back to the term "functional analysis." If
12 I use that term though, will you know what I mean?
13 A. Oh, definitely, yeah. Please use that.
14 Q. Okay. The next line down in the notes area, it
15 says -- well, what does that say? Bold?
16 A. Bold the contests with Indian American
17 candidates or, in this case, Indians.
18 Q. And the next one -- I'll let you read it. Or
19 I'll read it, I think. Write up average Native
20 candidate vote among whites compare to all election?
21 Do you see that?
22 A. Yeah.
23 Q. Did you do that in your analysis in this case?
24 A. I'm not sure. If I did, it -- this could also
25 be a note to, like, setting up my code base to take all

1 the results then pop out a number so I can quickly
2 access that for writing purposes. You know, it could
3 be related to that as sort of a process that I try to
4 implement just in general. But I can't recall for
5 whether I did.
6 Q. Is it fair to say that your final report does
7 not contain a chart that shows the average Native
8 American vote compared to whites in all elections; is
9 that fair?
10 A. I think that's right. I mean, I'm sure when we
11 get there, we'll be able to see. But that -- I
12 think -- I think that's right.
13 Q. All right. I won't belabor this much longer
14 here. Analysis of proposed district there, and then
15 three Native candidates, do they win. What does that
16 mean?
17 A. That would be to look at those 2016 Native
18 American candidates running and see if they win in a
19 proposed plan.
20 Q. And then below that, Lisa Handley 3/3 average
21 of Native candidates, what does that mean?
22 A. Lisa Handley is another expert who does this
23 sort of thing, and I think I had a note to try to --
24 basically there it's like you count up how many times a
25 type of candidate would have won in that or you take,

1 like, the average. There's a variety of different ways
2 of presenting this data. So in my process of trying to
3 streamline everything, that was one thing I think that
4 I would have noted.
5 Q. Did you have Lisa handily perform, like,
6 subcontract work on this case?
7 A. No, she's not at all related. No. Actually,
8 I've never met her in person either.
9 Q. And then it says, get shape files for Proposed
10 Districts. I assume that's referring to when you
11 talked before about how the attorneys sent you the
12 shapefiles?
13 A. Yes.
14 MR. PHILLIPS: All right. It's been about
15 an hour. I usually like to take a break about every
16 hour, and I need to return a message here. Is
17 everybody okay if we take a ten-minute break right now?
18 THE WITNESS: Sounds good.
19 MS. DANAHY: That works for us.
20 MR. PHILLIPS: Okay. Why don't we take a
21 ten-minute break. My local time is 11:06, so we can
22 come back at 11:16 or whatever that translates to in
23 your local time.
24 (A break was taken at 11:06 a.m.)
25 BY MR. PHILLIPS:

1 Q. All right. I'm going to shift topics here a
2 little bit and talk about the Walen case. You
3 mentioned at the beginning of this deposition that you
4 had the Walen report there with you physically?
5 A. I do.
6 Q. And did you review that report before the
7 deposition today?
8 A. Yes, I did.
9 Q. That case also involves the most recent 2021
10 redistricting in North Dakota, correct?
11 A. Correct.
12 Q. Are you planning to testify as an expert at
13 trial in the Walen case?
14 A. I think so.
15 Q. What's the scope of the work that you were
16 hired to perform in the Walen case?
17 A. Effectively, a VRA, Voting Rights Act,
18 compliance analysis, which primarily includes
19 conducting an RPV analysis and then a functionality
20 analysis.
21 Q. And that RPV was racially polarized voting?
22 A. Correct.
23 Q. And did I understand you to say that your work
24 in the Walen case included both an RPV analysis and a
25 functional analysis?

1 A. Yes.
2 Q. Okay. I've got -- I'm sharing my screen here
3 and showing Exhibit 37. I'm going to zoom in a little
4 bit. Can you see that?
5 A. Yes.
6 Q. Now, is it fair to say that your work in the
7 Walen case is limited to District 4 and its
8 subdistricts, correct?
9 A. Correct.
10 Q. That case does involve District 9, but your
11 opinion in that case doesn't include anything to do
12 with District 9; is that fair?
13 A. Correct.
14 Q. My understanding of District 4 is that they
15 elect one Senator-At-Large and then they have one House
16 member of each of the two subdistricts in 4; is that
17 correct?
18 A. That's my understanding.
19 Q. And that's similar to how District 9 functions
20 today, right?
21 A. Yes.
22 Q. So in other words, in District 9, there's one
23 Senator elected at large and then one House member
24 elected from each subdistrict, right?
25 A. Correct.

1 Q. And my understanding is that Subdistrict 4A
2 encompasses the Fort Berthold Indian reservation and
3 has a high concentration of Native Americans; is that
4 accurate?
5 A. That's also my understanding.
6 Q. I'm just going to scroll down to page 3 of your
7 report in the Walen case. And kind of in the middle of
8 the screen here, it says, "District 4A has a Native
9 American voting age population of 67.2."
10 Do you see that?
11 A. Yes.
12 Q. Is that a correct percentage?
13 A. Yeah, I think so. I can't recall in this
14 particular instance whether that is Native alone or
15 Native of any -- any other configuration. So I'd have
16 to go back and sort that out. But in any event,
17 that's -- you know, of the VAP probably here Native
18 alone is 67.2.
19 Q. If it wasn't Native alone, what other types of
20 individuals might be included in this definition of
21 Native American here?
22 A. Anyone who checks Native plus any other race.
23 Yeah.
24 Q. Does your report define anywhere the term
25 "Native American"?

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1 A. Not -- I don't think so. Not specifically. It
2 might have a mention to this. This is always something
3 that comes up in redistricting and VRA stuff. But I
4 don't think I have a specific definition. It's just --
5 you know, we're just using census data.
6 Q. Is it -- where would that data come from in --
7 did you get that data from the plaintiffs' attorneys or
8 did you gather that census data yourself?
9 A. I would have gathered all the census data
10 myself. It's -- sometimes, you know, I look at the
11 enacted plans, right, in this case and just take
12 whatever they're using. And I think the state was
13 using single race. And that's just a, you know, little
14 bit easier than to go and make all the calculations
15 myself and everything.
16 Q. Now, my understanding is that District 4B has a
17 high concentration of whites and a low concentration of
18 Native Americans; is that fair?
19 A. Yes.
20 Q. I'm going to go to page 5 on this exhibit.
21 Now, I counted these and there's 34, I believe, listed
22 here. These are exogenous elections that you analyzed;
23 is that fair?
24 A. That's right, yeah.
25 Q. And just so the record is clear, what's the

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1 different between an endogenous and exogenous election?
2 A. An exogenous is both a specific boundaries of a
3 district and then candidates running for that
4 particular office that's under litigation. Exogenous
5 is a different contest, usually a higher up, like a
6 statewide. Typically, at least for what I do, subset
7 to the new boundaries.
8 Q. And for this report, as I mentioned, there's
9 these 34 exogenous elections. Later in your report --
10 I'm going to scroll down to page 13 where I believe you
11 talk about it -- you had also analyzed an election that
12 had a Native American candidate and the candidates were
13 Terry Jones, Bill Oliver, Kenton Onstad and Cesar
14 Alvarez.
15 A. Right.
16 Q. Between that chart above and this election, is
17 that all of the elections that you analyzed for your
18 Walen report?
19 A. Let me look. Yes.
20 Q. Incidentally, this election involving Terry
21 Jones that we're looking at here on -- talking about it
22 on page 13 -- this references it as a 2016 race. I
23 looked this up and I believe that it is 2014. Is
24 that -- is that just a mistake or any idea --
25 A. That would -- if that were the case, that would

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1 just be a mistake or a typo.
2 Q. I'm going to go back up to the chart -- or the
3 table, I'm sorry, on page 5.
4 A. So before you go, I -- I did analyze I think
5 the 2022 State House of 4A, I think. But I didn't do
6 the same exact type of analysis that I did in these
7 exogenous races. So I did analyze that election, but,
8 you know, with some caveats and stuff. So I just want
9 to be clear about that.
10 Q. The election that involved Terry Jones and the
11 others in --
12 A. I think it was Finley.
13 Q. I'm sorry, the 2022 ones you're talking about?
14 A. Yeah, yeah, yeah.
15 Q. All right. I want to make sure we get clarity
16 on that then. Which ones are you talking about that
17 you didn't perform the same analysis on?
18 A. The -- hold on -- yeah, the 2022 general 4A.
19 Q. And what analysis did you perform on that
20 election?
21 A. I did effectively a correlation scatter plot.
22 So it's not included in this list because it's not kind
23 of my more traditional ecological inference RVP setup.
24 As you go down below, you'll see I then delve into it.
25 Q. And maybe just explain it so I can understand

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1 it. The -- what kind of analysis did you do on that
2 election? You had mentioned a scatter plot?
3 A. Yeah, so effectively do a correlation. So
4 seeing, you know, in areas that are more white versus
5 more Native American within the subdistrict, are
6 they -- are there different preferences for different
7 candidates.
8 Q. Why was a different type of analysis performed
9 on that election?
10 A. In subdistricts, usually because there's -- I
11 note this in the report, but there's -- number one,
12 there's fewer precincts, and, number two, there's not
13 as much racial homogeneity max in a given precinct for,
14 say, white or Native respectively. So it makes the
15 statistical ecological inference analysis effectively
16 less reliable than when you have the full jurisdiction.
17 Q. Am I understanding correctly that that analysis
18 is relevant to whether there's racially polarized
19 voting in those subdistricts?
20 A. Correct, yeah.
21 Q. And so in this case, there's not enough data in
22 each individual subdistrict to perform your typical
23 analysis to determine racially polarized voting; is
24 that fair?
25 A. Yeah, I mean, that was the decision I made. I

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1 think -- I wouldn't say there's not enough data,
2 because just -- I work in other contexts where maybe
3 the number of precincts is similar or something, but
4 the kind of general context and arrangement of
5 subdistricts relative to, say, other places, it's the
6 kind of thing that a lot of analysts would be, like,
7 hey, we probably should look at the fuller district to
8 do our RPV, racially polarized voting, analysis.
9 Q. And in this case, maybe -- explain it to me how
10 you looked at the full district to determine racially
11 polarized voting within the subdistricts.
12 A. Well, so I looked at the full district to
13 determine racially polarized voting in the general
14 region. So -- and then from there, you can kind of
15 infer that given where people are voting and where they
16 live, the composition of the electorate, that there's
17 almost for sure racially polarized voting within each
18 respective subdistrict.
19 Q. Can you say to a reasonable degree of
20 scientific certainty that there is racially polarized
21 voting in Subdistrict 4A?
22 A. Yeah, I think so, because you have the scatter
23 plot, and those types of analyses you see a strong
24 correlation between race and voting. And that's going
25 to replicate itself across the -- across the board.

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1 Q. And is the same true in 9B, that there's --
2 A. I didn't -- I didn't do a similar 4A analysis
3 in 4B because I think there was something specific
4 about that contest. It may have been uncontested. I
5 don't fully remember. So that kind of more granular
6 look, I can't say with as much confidence because
7 either the data weren't there, you know, I couldn't
8 make the same comparison. But the overall trend is
9 certainly there.
10 Q. So when -- I want to make sure I understand.
11 Can you state to a reasonable degree of scientific
12 certainty that there is racially polarized voting in
13 9B?
14 A. Um --
15 MS. DANAHY: David, I'm sorry, can you
16 clarify, are we talking about 9B or 4B? I think you
17 two are saying different things.
18 MR. PHILLIPS: It's a fair point.
19 THE WITNESS: Yeah.
20 BY MR. PHILLIPS:
21 Q. I think we were talking about 9, and that's
22 what I -- I realize that up on the screen we've got --
23 which group are you talking about? Well, no, I'm
24 sorry, 4?
25 A. We're talking about 4.

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1 Q. Yes, 4, the one near the Fort Berthold
2 reservation.
3 A. With 4B, I'm a little less certain than with 4A
4 because I'd have to do a little more digging in there
5 to look specifically at the different -- the relative
6 homogeneity of the different racial populations within
7 each of the precincts. So I can't say as much because
8 I haven't done that analysis.
9 Q. And just to make sure the record is clear
10 because I'm not sure how many times I misstated that.
11 In that conversation we just had, you were talking
12 about 4A and 4B, and I was asking you about 4A and 4B,
13 and that was your understanding the questions all
14 applied -- your answers applied to 4A and 4B; is that
15 fair?
16 A. That's fair, yeah.
17 Q. And we might as well ask similar questions
18 about 9A and 9B. Did you conduct an analysis of
19 racially polarized voting in 9A in relation to your
20 work?
21 A. Right. So with 9A and B -- sorry, I'm just
22 pulling that up, too. Give me a second here. So,
23 yeah, with 9A and 9B, again, so I did racially
24 polarized voting overall because it just lends itself
25 better to a more firm statistical conclusion.

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1 Because -- what's kind of different between 4 and 9 is
2 that there's a decent Native American population in 9B
3 whereas there's not a decent size Native American
4 population in 4B. And so we can be a little bit more
5 confident about Native American voting patterns simply
6 by looking at where they live and who they're tending
7 to vote for. So in that case, I'm even a little bit
8 more confident that there's racially polarized voting
9 in 9A and 9B than I am in 4A and 4B, whereas I'm very
10 confident about 4A, a little less so about 4B, just
11 given the data limitations. But more so about 9A, 9B.
12 Q. I want to make sure I understand your testimony
13 here. When you did analyze -- and we're talking about
14 9 now. When you did analyze racially polarized voting
15 in 9A and 9B, which parts of your data are limited to
16 9A and 9B? In other words, do you have certain data
17 that reflects the individuals residing in 9A and
18 certain data that reflects individuals residing in 9B?
19 Or have you made some sort of inference?
20 A. No. So what I do is I look at Tables 3 and 4
21 have demographics in, for example -- well, in this
22 case, for instance, 2022 legislative results. And so
23 we can look to relative homogeneous precincts within
24 each different area and see how vote preference and
25 candidate preference is emerging. So in -- for

1 example, in Subdistrict 9A in Rolette 3, which is a
2 precinct or voting district, Marcellais -- excuse me if
3 I'm getting that incorrect -- is getting 87 percent of
4 the vote. That's not me guessing, that's the actual --
5 you know, that's not an inference, an ecological
6 inference, that's just the actual number. And then in
7 Rolette 5, which -- where the white population is
8 disproportionately larger, it's not as homogenous as
9 one may typically see, but still it's one of the larger
10 whiter areas, you can see Marcellais is only getting 30
11 percent of the vote. And so there's this clear logical
12 connection between percent Native American, percent
13 white and candidate choice. And you can see the same
14 thing in 9B. And so that's effectively what ecological
15 inference is doing, it's just throwing -- you know,
16 it's putting it through kind of different statistical
17 algorithms, but it's relying on the same underlying
18 sort of set of data.
19 Q. We'll look at it again a little bit closer when
20 we get to that report, so I don't want to get too out
21 of order in terms of the report. So thank you for that
22 explanation.
23 A. Okay.
24 Q. I'm going to share my screen again here. Can
25 you see we're back on Exhibit 37? Are you able to see

1 my screen?
2 A. Yes.
3 Q. And on page 5 here, that chart, there's a
4 little star here on some names. This is what we talked
5 about before, right, these stars on this -- on the
6 names in this chart, those denote actual Native
7 American candidates; is that fair?
8 A. Yes.
9 Q. Do you -- in your analysis in either case, the
10 Walen case or the Turtle Mountain case, do you find
11 elections involving a Native American candidate to be
12 more probative than elections involving only white
13 candidates?
14 A. Yeah, I think that's a general -- a general way
15 of analyzing these types of scenarios is looking for
16 candidates that emerge out of the community, that is,
17 you know, part of the complaint or the suit.
18 Q. And what about more recent elections? Do you
19 consider more recent elections to be more probative
20 than older elections?
21 A. Definitely as a general rule, more recent
22 elections are more probative.
23 Q. And again, this applies to both cases, the
24 Walen case and the Turtle Mountain case. Fair?
25 A. Yeah, I think these are principles that most

1 experts are going to -- you know, are going to stand
2 by. It doesn't mean that one election is going to
3 swing everything in some cases, but it's certainly
4 telling and should be considered.
5 Q. What about endogenous elections v. exogenous
6 elections? Is there a higher probative value to
7 endogenous elections?
8 A. Yeah, also as a general rule, there is.
9 Q. So I had asked you about elections with Native
10 American candidates, more recent elections, and
11 endogenous elections. You indicated those are -- those
12 are factors that indicate an election is more
13 probative. Are there any other factors that, in your
14 opinion, make an election more probative in your
15 analysis?
16 A. Probably, as a general rule, general elections.
17 But I don't -- I don't think I go into that too much
18 here. But that -- it's not always clear. Usually
19 depends on where the blocking is coming from. But
20 typically, general elections I think are more
21 probative.
22 Q. General elections as opposed to special
23 elections?
24 A. Yeah, specials or primaries.
25 Q. Does that distinction between general elections

1 and other elections play any role in your opinion on
2 the Turtle Mountain case?
3 A. No.
4 Q. Did you look into that when conducting your
5 analysis at all?
6 A. I think I might have a little bit. And then a
7 lot of times with the primaries, there's -- especially
8 the local level, they're, you know, uncontested. So
9 it -- I think I was seeing some of that, and so I just
10 kind of made a sort of hard decision just to look at
11 generals.
12 Q. When you're conducting an analysis in a case
13 like the Turtle Mountain case or the Walen case, how do
14 you account for the probativeness of an election? Is
15 there a mathematical factor that you apply at all?
16 A. No, I would say it's -- it's certainly context
17 based. I mean, part of the challenge of all this is --
18 it really is the case. I've worked on quite a few of
19 these now, on these cases, and realize the case that
20 every situation is a little bit different. And so
21 having a straight line mathematical formula is a little
22 bit -- I don't know if I would actually want that. You
23 know, but certainly there's a question of more recent
24 elections obviously carry more weight. And part of the
25 reason I say that is there's population changes. 2014

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1 is a while back, and, you know, could be -- maybe not
2 in this particular instance, but as a general rule, the
3 population could be a little different now, the
4 electorate could look a little different. So if I'm
5 seeing trends like in the Turtle Mountain case that
6 vary, you know, specific in recent years and with
7 Native American candidates, certainly that's going to
8 matter a lot more than something from 2014 or, you
9 know, earlier.
10 Q. And when you say "matter a lot more," just to
11 be clear, there's not a mathematical formula that
12 you're giving it greater weight in any sort of
13 quantitative analysis, right?
14 A. That's correct.
15 Q. You've just sort of pointed out in your report
16 that certain elections are more probative.
17 A. Correct.
18 Q. Ultimately, is it your understanding that it's
19 up to the court to decide which elections are more
20 probative than others?
21 A. Usually my understanding is that it's mostly --
22 all the time it's up to the court to decide, so yeah.
23 Q. If you don't apply a mathematical calculation
24 to the probativeness of an election, is there some
25 tipping point where elections -- certain elections

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1 being more probative tips your opinion in one direction
2 than the other?
3 A. I -- no, I -- no, I don't think there's a clear
4 tipping point.
5 Q. This chart that we're looking at here on page
6 5, it shows -- it has a column that says D4
7 Native-Prefer Win, D4 A Native-Prefer Win, and D4 B
8 Native-Prefer Win.
9 Do you see that?
10 A. Yes.
11 Q. Is that another way of saying that Native
12 American candidate of choice either one or lost the
13 election?
14 A. That's right.
15 Q. And if I'm understanding it right, this is the
16 results of a functional analysis; is that correct?
17 A. That's correct.
18 Q. Now, in District 4 as a whole here, being this
19 column we're looking at -- I'm going to scroll down --
20 it looks like the Native American candidate of choice
21 loses in all of the elections that you analyzed; is
22 that correct?
23 A. That's correct.
24 Q. And in subdistrict -- I'll go back up here --
25 4A, it looks like the Native American candidate of

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1 choice wins in all but one election that you analyzed;
2 is that correct?
3 A. Also correct.
4 Q. And in 9B, it looks like --
5 A. 4B.
6 Q. Oh, I'm sorry. Thank you. Please correct me
7 if I make that mistake.
8 In 4B, the Native American candidate of choice
9 loses in every single election analyzed, correct?
10 A. Correct.
11 Q. And in the election later in this report
12 involving Mr. Alvarez, the Native American candidate in
13 2014, he lost his election, correct?
14 A. Yeah.
15 Q. And that was a -- that was the district as it
16 was formerly drawn, but the overall district was very
17 similar to the current District 4 overall, right?
18 A. That's right.
19 Q. It's fair to say that in District 4, as it was
20 recently redrawn, the Native American candidate of
21 choice is very likely to win in Subdistrict 4A, right?
22 A. Yes.
23 Q. And the Native American candidate of choice is
24 very unlikely to win in 4B?
25 A. Correct.

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1 Q. This chart that we're looking at, this Table 1
2 in the Walen report, that lays out the Native-preferred
3 candidate, do you have a similar chart like that in
4 your report in the Turtle Mountain case?
5 A. Yeah, I usually put something like this in all
6 my reports.
7 Q. Do you have a chart that has the prefer-win
8 columns in the Turtle Mountain case?
9 A. No.
10 Q. Why not?
11 A. I don't know. Probably because I'm doing a lot
12 more -- I got D9, D15, also looking at statewides. And
13 so it's just an overall more comprehensive setup and
14 kind of the columns started to get too small. They're
15 already pretty small here, you know.
16 Q. I don't think it's in a chart form, but
17 Dr. Hood, in his report, he does provide the numbers of
18 wins and losses for Native American-preferred
19 candidates, doesn't he?
20 A. That sounds right. Yeah.
21 Q. Are you familiar with the terms "packing" and
22 "cracking"?
23 A. Yeah, I'm pretty familiar with those terms.
24 Q. I assumed so.
25 What do those terms mean?

1 A. Packing is situation where a group, typically a
2 minority population, is placed within a single
3 district, instead of spreading them out a bit more, to
4 limit their elect to recall influence.
5 Cracking is where you split a group, usually a
6 minority group, across multiple districts and also
7 limit their influence. So it's pretty typical
8 redistricting scenarios that we see around the country.
9 Q. I just want to talk about the Walen case for a
10 moment. Do you have an opinion in the Walen case as to
11 whether or not Native Americans are packed into
12 Subdistrict 4A?
13 A. Well, so part of the issue is you also -- you
14 have packing and cracking on the one hand, but then you
15 also need to have electoral viability for those
16 different communities on the other hand. So --
17 Q. Limited to my question first though, do you
18 have an opinion on whether there is packing and
19 cracking in -- or, sorry, packing in 4A?
20 A. I don't think I looked specifically into
21 packing and cracking. I just did the analysis.
22 Q. So in that case, you don't have an opinion one
23 way or the other, or haven't expressed one, as to
24 whether there's packing or cracking in District 4?
25 A. That's my -- that's my sense. I -- it's

1 possible in the report I go into it, I just don't
2 recall. But I don't -- I'm pretty sure I don't. I was
3 just conducting an RVP/ performance analysis, so --
4 Q. Fair to say --
5 A. -- I didn't get into that.
6 Q. I'm sorry, I didn't mean to cut you off.
7 Go ahead.
8 A. No, please.
9 Q. It's fair to say though, based on your
10 functional analysis, the Native American candidate of
11 choice is almost guaranteed to win in Subdistrict 4A;
12 isn't that right?
13 A. Right.
14 Q. And the Native American candidate of choice is
15 almost guaranteed to lose in 4B, right?
16 A. That's right.
17 Q. And the Native American candidate of choice is
18 almost guaranteed to lose the Senate seat in overall
19 District 4, right?
20 A. Yeah.
21 Q. Is it fair to say it's not your opinion that --
22 I'll reverse that.
23 Do you have an opinion on whether the
24 redistricting that took place in District 4 is a
25 violation of the Voting Rights Act?

1 A. Yeah, I have an opinion on that.
2 Q. What's your opinion?
3 A. It's not.
4 Q. Let's talk about District 9 and the current
5 Turtle Mountain case.
6 MS. DANAHY: David, before we move on, I
7 just want to clarify something.
8 MR. PHILLIPS: Yes.
9 MS. DANAHY: You refer a couple times to
10 that election, the District 4 election, as being in
11 2014, and I don't -- I don't think that's correct.
12 MR. PHILLIPS: You may be right, I may
13 have --
14 MS. DANAHY: His report is correct, that
15 was a 2016 election.
16 MR. PHILLIPS: I'll look it up on a break.
17 MS. DANAHY: I just wanted to make sure
18 that was clear for the record.
19 MR. PHILLIPS: You may very well be right,
20 and I certainly -- I don't have a point on it, I just
21 want to make sure the record is clear. So I will look
22 it up on a break as well and make sure it's --
23 MS. DANAHY: Thank you.
24 BY MR. PHILLIPS:
25 Q. In the Turtle Mountain case relating to

1 District 9, do you have an opinion on whether there is
2 packing or cracking?
3 A. Yeah, I mean, I think it's cracking.
4 Q. And where is it your opinion that there is
5 cracking taking place?
6 A. Well, the end result, at least based on the
7 last round of elections, is you went from, you know,
8 the ability to elect three Native American candidates
9 of choice or Native American representatives, Senate,
10 to basically just one, which is 9A.
11 Q. Is one election cycle enough to make a
12 determination of packing and cracking?
13 A. I -- yeah, you do need to be careful with one
14 election cycle in an analysis. But certainly the kind
15 of end result here is, even looking at the 2020 round
16 of elections, you know, there's a dilution of Native
17 American voting capacity in and around Turtle Mountain,
18 especially when you include, you know, Spirit Lake area
19 as well.
20 Q. I want to make sure I -- you get to the
21 question that started this, which is where is there
22 cracking taking place in your opinion?
23 A. Well, so basically the boundaries between 9A
24 and 9B, number one. The people in 9B, the Native
25 American people there are no longer represented at the

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1 district level. And then the overall region, there's
2 effectively cracking because, as my electoral
3 performance analysis showed, the state could have
4 easily drawn a district that's similar to -- fairly
5 similar to a previous district, maybe not the most
6 previous, but a previous district in the area that
7 could have, at least based on my performance analysis,
8 that could have elected more Native American candidates
9 of choice.
10 Q. We'll talk in a minute about the Spirit Lake
11 reservation and the folks in District 15. But what --
12 correct me if I'm wrong, what the state actually did in
13 creating 9 was, you know, fully encompassing the Turtle
14 Mountain reservation and surrounding lands, and then
15 part of that is a subdistrict, or, you know, it's
16 divided into two subdistricts, correct?
17 A. Correct.
18 Q. If the state were to do that, which it did, is
19 there a -- do you have an opinion on how the state drew
20 the subdistricts in light of the requirement to have
21 population equality?
22 A. If you're only focusing on --
23 MS. DANAHY: That was a little vague.
24 Just . . .
25 BY MR. PHILLIPS:

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1 Q. Did you understand my question?
2 A. I think so.
3 Q. Let me back it up just to make sure it's clear.
4 So is it your understanding that if the state
5 creates subdistricts within a district in North Dakota,
6 that each of those subdistricts has to have
7 approximately the same population?
8 A. Yeah, that should certainly -- every time
9 you're districting, that's a very important principle,
10 if not the most important principle.
11 Q. And in this case, the state did not draw a
12 district that combined the two reservations at issue,
13 Turtle Mountain and Spirit Lake, correct?
14 A. They did not do that. Yeah.
15 Q. Instead, we have a district that has Turtle
16 Mountain in it and we have a district that has Spirit
17 Lake in it, right?
18 A. That's right.
19 Q. So with what the state did actually passed with
20 District 9, do you have any opinion on whether there is
21 packing in 9A in light of the requirement to have
22 population equality?
23 A. If you just restrict the analysis to 9 and only
24 9, that starts to get a little bit more -- I haven't
25 done a sort of -- and I'm not sure if I want to -- but

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1 some sort of a threshold analysis where I create
2 different configurations of 9 such that it may be
3 possible to get two State Representatives out of that
4 area. I think that's possible, but it -- that's not
5 what I did. So I can't really speak to that.
6 Q. There are some trust lands in 9B, right?
7 A. That's correct.
8 Q. So the state could have drawn the lines within
9 9 in a way that pulled in more of those trust lands,
10 right?
11 A. That would fulfill more of a COI type of
12 situation, yes.
13 Q. If they did that, they'd have to eliminate some
14 population elsewhere by drawing the line elsewhere to
15 cut some people out of 9A, right?
16 A. Unless those trust lands have zero population
17 in them, you know. But it's -- right, when you're
18 drawing lines and stuff, it can get always difficult to
19 make the balancing. So I understand the state's
20 perspective with respect to balancing population, and
21 that's an important criteria -- criterion.
22 Q. To be clear, if I understood your testimony
23 before, you don't have an opinion, haven't performed an
24 opinion about the subdistricts in 9 alone in terms of
25 whether there's packing or cracking?

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1 A. I think that's right, at least at this point.
2 Q. I'm going to share my screen again here. Can
3 you see my screen again?
4 A. Yes.
5 Q. And still on Exhibit 37. So I'm on page 21 of
6 Exhibit 37, and it's in the conclusion paragraph, and
7 it starts, "Therefore." And it says, "Therefore,
8 Gingles III is present in Sub-District 4B, in District
9 4 overall, but not in Subdistrict 4-A (which was drawn
10 to allow Native American voters to overcome white bloc
11 voting)."
12 Do you see that?
13 A. Yes.
14 Q. Is it your opinion that Subdistrict 4A was
15 drawn to allow Native American voters to overcome white
16 bloc voting?
17 A. Well, I mean, that's what I say there. It's
18 possible in the discussion by the legislature, et
19 cetera, that the language would be a little bit
20 different. I don't know if the legislature conducted
21 these very specific analyses. But this is deduced from
22 all of my analysis. So yes.
23 Q. In your opinion, does Subdistrict 4A allow
24 Native American voters to overcome white bloc voting?
25 A. Within -- yeah, it does.

1 Q. Can the same be said about District --
2 Subdistrict 9A? Does Subdistrict 9A allow Native
3 Americans to overcome white bloc voting?
4 A. Well, there are some caveats to that general
5 discussion, as we've noted. But in a very specific
6 sense, yes.
7 Q. It does?
8 A. Yes.
9 Q. That paragraph goes on to say, "Sub-District 4A
10 thus affords Native American voters the opportunity to
11 their candidates of choice that they otherwise lack in
12 the absence of the sub-district."
13 Do you see that part of this in the Walen
14 report?
15 A. Yes.
16 Q. Is it your opinion in the Walen case that
17 Subdistrict 4A affords Native American voters the
18 opportunity to elect the candidates of their choice?
19 A. Yes.
20 Q. It allows Native Americans to elect at least
21 one House member, right?
22 A. That's right.
23 Q. They're basically guaranteed, based on the
24 functional analysis; isn't that right?
25 A. The functional analysis provides the type of

1 analysis that gives us as much confidence as we could
2 before a set of elections continued to progress.
3 Q. Let's go to -- I'm on page 3 of this same
4 exhibit, the Walen report. And right here in the
5 middle of the page, it looks like you're looking at
6 compactness measures with respect to District 4A; is
7 that a fair statement?
8 A. Yes.
9 Q. And in this case, you discuss Reock and
10 Polsby-Popper, right?
11 A. Yeah.
12 Q. In the Turtle Mountain case, the one that we're
13 here about today, did you run both Reock and
14 Polsby-Popper?
15 A. Yeah, I think -- I think that was in my
16 rebuttal. Yeah.
17 Q. And, let's see, in this case, 4A, it says,
18 scores very high on measures of compactness.
19 Do you see that?
20 A. Yes.
21 Q. Do you know how your demonstrative exhibits
22 compare to the compactness of 4A?
23 A. They're lower.
24 Q. Do you know how much lower?
25 A. Not off the top of my head.

1 Q. We'll look when we pull up that report.
2 And my understanding is that there are a large
3 number of potential measures for compactness; is that
4 fair?
5 A. Yeah, it's a good way to make yourself stand
6 out by, you know, coming up with some new measure or
7 something. You know, statisticians or academics like
8 to be named.
9 Q. Is there a Collingwood that --
10 A. I'm working on it, okay? I'm working on it.
11 Q. Okay. So the Reock and Polsby-Popper. Are you
12 familiar with Schwartzberg as another measure?
13 A. Yes, that's one that Dr. Hood also uses and
14 incorporates.
15 Q. You know, just so this record is clear and so
16 that I understand it, I have a basic understanding of
17 these, but maybe you could help me get a better
18 understanding. What is Reock?
19 A. So that's -- they're all basically circle to
20 area measures. So they're all pretty basic
21 mathematical formulas. But in the case of Reock, you
22 have a district and then you just draw the tightest
23 circle you can around that and then take the ratio of
24 the area of the district to the -- to the area of the
25 circle.

1 With the Polsby-Popper -- make sure I get this
2 right -- but it's where you have the same district but
3 then you compare the ratio -- the area of that district
4 to a circle that has the same perimeter of that
5 district and then take the ratio. I think that's
6 right.
7 And then I forget what the Schwartzberg one is.
8 But what's -- what's good about these different
9 measures is that they all line up from zero to one,
10 sort of like a correlation -- zero to one where zero is
11 basically, you know, not compacted at all, one is fully
12 full circle. And so they're all relative to one
13 another. And their number is -- they're ranges that us
14 as political scientists and other, you know, social
15 scientists can -- we're very familiar and comfortable
16 with that kind of range.
17 Q. So higher is better --
18 A. It's --
19 Q. -- on all of these measures, and they all max
20 out at one?
21 A. That's right.
22 Q. How did you calculate compactness -- well, let
23 me ask you, did you calculate compactness differently
24 in the Walen case compared to the Turtle Mountain case
25 in terms of the tool you used?

A. Right. So I often use Dave's Redistricting, which is -- you may be familiar, since obviously you've been litigating these cases for a while now and have become familiar with redistricting. Dave's is free, it's pretty easy to use, you can upload some maps and it just pops out these two numbers. And then I got the numbers for -- I saw that Dr. Hood used Maptitude. And I think in 9, some of -- maybe some of the evaluations were slightly different, so I just wanted to do an apples-to-apples comparison, so I got the Maptitude scores, which were I think slightly different. I don't know exactly why that's the case. But they're all always going to be at least relatively the same, within the same software.

Q. It's done by software. You don't have the -- what is it -- a protractor?

A. No, that would take too long. I'd be paid a lot though, so maybe I should start doing that.

Q. So in this case, you used Dave's Redistricting?

A. Right.

Q. Is Dave's Redistricting an app or just Dave's Redistricting, is there a difference between those two?

A. I would say there's no difference, it's just an online app you just -- anyone can use, it's free, you know. So whenever we say "Dave's Redistricting," those

who use it, app or just the name, it's the same thing.

Q. And that's the tool you used to come up with the compactness scores?

A. Yeah. I can also use R, but I just haven't -- it's easy enough to use Dave's, so I just haven't yet incorporated that in my code base.

Q. When you talk in this portion about District 4A having a Reock score of .45 and then you characterize that as very compact, if you went even higher, it would be even better, and lower would start to get worse, right?

A. Lower would just mean that it's less compact. I mean, obviously worse is -- could be interpreted as a bit of a loaded question or loaded word. So I have to be a little bit careful on that.

Q. That's fair. Although is it also fair to say that while there may be a range of acceptable compactness, more compact is preferable to less compact in the sense of traditional redistricting criteria?

A. If all you're doing is looking at compactness scores and that's it, yeah, I can see that.

MR. PHILLIPS: I'm ready to switch topics, and so now might be a good time to take another quick break.

THE WITNESS: Sounds good.

(A break was taken at 12:12 p.m.)

BY MR. PHILLIPS:

Q. Dr. Collingwood, we talked during the break a little bit about the contest between Terry Jones, Bill Oliver, Kenton Onstad and Cesar Alvarez in your Walen report. And right now, I'm showing you page 4 of your Walen report. Is that a typo where it references 2014, LD-4? That should be 2016?

A. Correct.

Q. Okay. And maybe elsewhere it's correctly stated as 2016, but at least on this page it's a typo?

A. Correct.

Q. Earlier today, I had asked you about materials that the attorneys provided to you that you ended up using in your opinion and report, and you had mentioned shapefiles and Maptitude maps. Have you thought of any or come upon any others that had been provided to you that you neglected to mention before?

A. Well, I did mention the crosswalk file I think for LD-15.

Q. Thank you. Yes.

Other than those?

A. Not that I can recall.

Q. Okay. All right. Can you still see my screen? It should be showing Exhibit 38 now.

A. Yes.

Q. I can zoom in a little bit.

Is this your initial expert report in this Turtle Mountain case?

A. Yes.

Q. And to be clear, you also have a rebuttal report that we'll talk about in a little bit. But as between this initial report and your rebuttal report, do those reports state your entire opinion that you intend to express in this case?

A. So far, yes. I don't foresee anything else coming through. I would like, if I can, reserve the right if something does occur between now and, you know, the trial, that I'm given that opportunity to voice additional opinion.

Q. As you sit here today, you're not aware of anything else that you'll be opining on?

A. Correct.

Q. Okay. I'm going to scroll down. I'm on page 6, and it looks like --

COURT REPORTER: I'm sorry to interrupt, but with the shuffling of papers, I didn't hear anything you just said, Mr. Phillips.

THE WITNESS: I'm sorry.

BY MR. PHILLIPS:

1 Q. So I'm on page 6, and there's a Table 1. And
2 if I scroll down a little bit on page 7, there's a
3 Table 2.
4 Do you see that?
5 A. Yes.
6 Q. And do these two tables together show all of
7 the elections that you analyzed in this case, the
8 Turtle Mountain case?
9 A. They show the elections that I analyzed with
10 ecological inference statistical techniques, yes.
11 Q. And similar to what we looked at in the Walen
12 case, do these little asterisks by the name denote a
13 Native American candidate?
14 A. They do.
15 Q. All right. And again, the RPV stands for
16 racially polarized voting, right?
17 A. Correct.
18 Q. Now, we looked earlier at a chart in the Walen
19 case that also included the -- whether the Native
20 American-preferred candidate wins in any given
21 election, and that's not in this chart; isn't that
22 right?
23 A. It's not in the chart.
24 Q. Remind me again, why isn't it on this chart in
25 the Turtle Mountain case?

1 A. I don't know exactly why, but I think it --
2 mainly because there's the addition of multiple
3 contests here and multiple D9, D15 and, you know,
4 statewide and just started to get a little bit out of
5 control, probably. I write a lot of these reports. I
6 try to have the same setup, but it doesn't always go
7 that way.
8 Q. How many redistricting cases have you worked on
9 total?
10 A. Probably ten.
11 Q. Do you normally include that minority-preferred
12 candidate column in your reports?
13 A. Probably. I don't know -- I mean, I'd have to
14 go back and look. There's some cases I've worked on
15 where I'm looking at so many different districts and so
16 many different areas, you know, that that setup, I just
17 maybe don't have there because it's just too much, and
18 I get into it later in the context of the report.
19 Q. How did you select these specific elections to
20 include in your analysis?
21 A. Well, because of the -- you know, I started
22 this before there had been endogenous elections in the
23 district. And so I think when I initially started
24 looking at this, it was -- the 2020 elections had
25 occurred. So, you know, I started there. And because

1 of the new district configurations, you can't just look
2 at, you know, results in the previous LD-9 or LD-15 and
3 make a conclusion about -- you can draw inferences, but
4 you can't be as strong in your conclusions particularly
5 with regard to the functionality analysis. So what's
6 typical then is that -- again, you start with the
7 general elections, statewides, with the most recent
8 year and then going back. You know, how far you go
9 back is always usually a function of time and data
10 limitation. But as you can see, there's a ton of
11 elections here, you know. This is more than I think
12 what many people do. So I felt comfortable enough to
13 get kind of at least a sense of what's going on here in
14 terms of polarization. And then with 2022, I included
15 the results for the -- some of the endogenous contests,
16 so . . .
17 Q. Did you have any specific criteria that you
18 used in order for an election to be included in this
19 list?
20 A. No. If there had been more Native American
21 candidates across the board, then I would potentially
22 exclude just a Native American -- races featuring
23 Native American candidates. I sometimes do that. But
24 because there's only, you know, for -- obviously, the
25 endogenous is a little different most recently. I

1 wanted to broaden the -- broaden the scope so I had a
2 little more to say, little more variability, I guess.
3 Q. Did you have any specific criteria to exclude
4 an election from this list?
5 A. No. You know, the general issue is I go to the
6 secretary of state website and get all of the contests
7 that were -- statewides. The exclusion would occur by
8 definition if a result -- if a contest is uncontested.
9 I didn't look at ballot initiatives or constitutional
10 amendments or those type of things. That sometimes is
11 excluded -- or included, depending on what the ballot
12 initiative is. But here, I just excluded them
13 altogether. I think that was the main -- the main
14 method, trying to keep it consistent across the board,
15 basically.
16 Q. Did you personally decide which elections to
17 include?
18 A. I did.
19 Q. Did you have -- did you receive any input from
20 the attorneys in this case about which elections to
21 include and which elections to exclude from this list?
22 A. I think maybe with the most recent round of
23 elections, counsel let me know that there had been some
24 Native American candidates running. Sometimes it's
25 hard for to me to know who is and who isn't Native

1 American. Surnames can give it away, but not always.
2 A name like Brown, for example, is actually a very
3 common Native American surname. But, you know, people
4 of all different race or ethnicities in the United
5 States have the name Brown. So sometimes on-the-ground
6 information can -- that can help me.
7 Q. How did you determine that the individuals on
8 this list who have a star next to their name are Native
9 American?
10 A. Well, some of them I was able to look at their
11 actual picture and, you know, look at the kind of, you
12 know, the dress, sort of attire that people are
13 wearing, it's pretty obvious. You do a little research
14 on them and their political career, like Marcellais, if
15 I'm pronouncing that correctly, you know, talk about
16 that and previous representation maybe for their tribe.
17 And in other cases, counsel, you know, has done the
18 background research on that and notifies and tells me
19 which ones -- which candidates are Native American.
20 Q. My understanding is it's Marcellais is the
21 pronunciation.
22 A. Marcellais, yeah. It's that French --
23 Marcellais sounds like a French name to me. You have a
24 bit of that, I guess, up in the northern parts of the
25 state with -- or of the U.S. with the fur trades or

1 something I think, right?
2 Q. His ears are probably tingling, so if I got it
3 wrong, I apologize.
4 A. Well, what's good is that that won't come out
5 in the transcript.
6 Q. That's a good point.
7 Now on the far -- I just want to make sure I
8 understand this table. And again, we're looking at
9 Table 1 on page 6 right now. It looks like there are
10 four statewide elections where you show racially
11 polarized voting.
12 Do you see that on the far right-hand column?
13 A. Yeah.
14 Q. Are those the only four statewide elections
15 that you reviewed for racially polarized voting?
16 A. They are.
17 Q. And why -- why just those four elections?
18 A. Those were the elections that featured a Native
19 American candidate running statewide, so I wanted to --
20 you know, with a lot of data across the full state,
21 just get a general sense of how if there's racially
22 polarized voting just with more data, just be a little
23 more firm in my overall conclusion.
24 Q. Is there a reason you didn't include any
25 statewide races that had two white candidates but with

1 a preferred Native American candidate?
2 A. Probably the main reason is it's just a lot
3 more work and -- but I didn't exclude them because
4 there wasn't a -- I ran it and didn't see racially
5 polarized voting, so I didn't. You know, that wasn't
6 the reason. Just it would be a lot more work. And I
7 have enough work cut out for me doing both D9 and D15
8 respectively.
9 Q. This chart, this Table 1, it looks like it goes
10 from 2014 until 2022. During that date range, are you
11 aware of any statewide elections that had a Native
12 American candidate, which is not shown on your chart?
13 A. I -- no, I'm not saying that there's not.
14 There may be, I suppose, or maybe someone ran in a
15 primary that I didn't know about. But that was my
16 understanding at least at the time.
17 Q. And I want to understand your methodology and
18 reasoning here. How are statewide elections relevant
19 to the issues in this case in Districts 9 and 15?
20 A. Yeah, that's a good question. They may be --
21 perhaps they're not legally relevant, I guess, from
22 your perspective, given that we're looking at a
23 zoomed-in area. I think they're broadly relevant
24 because that allows me to really get a good read on
25 Native American voting in general.

1 Q. I -- I'm sorry to cut you off, but you cut off
2 just a little bit. Could I just have you re-say that
3 statement again?
4 A. They just -- they give me a little more
5 confidence in being able to make a statement about
6 Native American voting. It's kind of a -- almost like
7 a reliability check.
8 Q. In this list that we're looking at here on page
9 6, do you consider any of these elections to be of a
10 higher probative value than other -- than the rest of
11 the elections?
12 A. Yeah, I mean probably the 2022 State Senate D9
13 is the most probative. And then also the State Senate
14 D15 is also very probative. And those are probably the
15 most.
16 Q. Let's go -- let's look at those then. That
17 State Senate D9, why do you consider that to be one of
18 the most probative?
19 A. Well, it's recent and it features a Native
20 American candidate in Marcellais -- Marcellais, and
21 it's endogenous.
22 Q. Anything else when it comes to State Senate D9?
23 A. No, that's it.
24 Q. What about State Senate D15?
25 A. Similar, it's recent and features a Native

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1 American candidate. It also is, at least with the
2 context of D15, endogenous. And then the 2022 Public
3 Service Commissioner, Moniz v. Fedorchak, is also --
4 features a Native American candidate and so allows us
5 to look at how the -- a district would perform, say a
6 demonstrative would perform.
7 Q. And that one would be more probative because it
8 has a Native American candidate and is more --
9 A. Correct. Right.
10 But, again, the context of always only looking
11 at Native American candidate versus not, in the context
12 of the Voting Rights Act, you still -- what you
13 ultimately care about is candidates of choice. If
14 Moniz, for example, is not the Native-preferred
15 candidate, then, you know, that would be telling. And
16 so that has to be kind of taken into consideration as
17 well. So it's not just, like, a down the line, yes,
18 no, yes, no type situation.
19 Q. Is that because Native Americans could prefer a
20 white candidate?
21 A. Yeah, yeah, it could be the case. Or it could
22 be that white voters prefer a Native candidate and vice
23 versa. So there -- while you don't typically see that
24 in the context of -- I don't typically see that, at
25 least in the context of the elections in North Dakota

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1 I've looked at, I've seen that in other places. Tim
2 Scott, for example, in South Carolina is typically the
3 preferred candidate of white voters in South Carolina
4 and not the preferred candidate of black voters.
5 Q. Now, so far you've mentioned as particularly
6 probative the Public Service Commissioner with Moniz
7 being the winner there, and then you mentioned the
8 State Senate D9 with Marcellais and -- or being a
9 candidate, and State Senate D15 with Brown. Are there
10 any other elections on here that you consider
11 particularly probative?
12 A. Well, the D15 State House, there also would be
13 in that context -- let me check that -- yeah, could be
14 potentially probative, you know, more probative. So
15 those are -- those are kind of the top ends here. You
16 know, 2020 to 2022 are generally going to be more
17 probative than 2018 and down. And then -- you know,
18 then within that, the Native American candidate is
19 running, as well as endogenous or not, is another
20 separator. And then 2018 through 2014 begin to look
21 more at whether a candidate's Native American in the
22 context of 2016 elections, at least theoretically, Iron
23 Eyes and Buffalo and Hunte-Beaubrun should be more
24 probative relative to the other 2016 contests.
25 Q. Aside from the general principle that more

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1 recent elections are more probative, are you aware of
2 any change, demographic shifts, or any other change
3 that's happened between 2014 and 2022 that would make
4 2022 more probative?
5 A. And demographic shift --
6 Q. Or any other change that you can think of
7 that's happened between 2014 and 2022.
8 A. Well, I think there was a -- at least according
9 to the census -- a population loss in parts of the old
10 D9, which could potentially make a difference. I'd
11 have to double check that, but I think that was right
12 because it used to be Rolette County and now it has to
13 take in more. So the only way that that would have
14 happened is if there was population loss there or the
15 state grew as a whole.
16 Q. Are you -- are you aware of -- I mean, did you
17 conduct any analysis on whether that population loss
18 makes a difference in these individual elections from
19 2014 to 2022?
20 A. I see. I see. I did not conduct an empirical
21 data-driven analysis on that point. There's also other
22 things, like, you know, Trump got elected in 2016 which
23 systemically changed American politics. You know,
24 that's just kind of -- there's so much research on that
25 point that that was kind of a, you know, exogenous

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1 shock to the entire political system I think that could
2 basically make you think, okay, more recent elections
3 are more relevant to what's going on now. He, you
4 know, injected race into the political system in a way
5 that we hadn't seen as much, at least by a white
6 candidate, for a long time at the national level.
7 Q. Is it fair to say that throughout 2014 to 2022,
8 the white candidate of choice in the elections you've
9 looked at would be the Republican candidate?
10 A. Yeah, I think that's right. Yeah.
11 Q. Would it be fair to say that the Native
12 American candidate of choice is consistently the
13 Democratic candidate?
14 A. I think that's right.
15 Q. That didn't change with Trump's election,
16 right?
17 A. No, it didn't. The overall changing of the
18 guard there didn't change, that's correct.
19 Q. I know we talked about this earlier, but I just
20 want to make sure it also applies in this Turtle
21 Mountain case. You don't apply any sort of
22 mathematical formula that gives more weight to more
23 probative elections, correct?
24 A. No.
25 Q. You just point out the probativeness in your

1 report?
2 A. Correct.
3 Q. All of the -- when I had asked you a moment ago
4 about which elections are more probative, the ones that
5 you listed were in 2022. Does a single election
6 year -- is that enough to establish a pattern?
7 A. It's a tough call. But just focusing on one
8 year, perhaps you have to be a little more circumspect.
9 But I do then -- if you just look at 2022 and 2020, the
10 results are generally pretty consistent. And what you
11 typically see is over time you see Native-preferred
12 candidates were doing better in 2014, 2016, and then in
13 2018, as you know, is a bit of an outlier. And then it
14 starts to go the other way. And so you see this
15 overall pattern of Native American voters having a more
16 difficult time electing candidates of choice at the
17 full district level. So I think when you see that
18 pattern, you look at it, you plot that over time, those
19 are the kinds of things that while I didn't generate
20 that specific plot in this analysis, those are types of
21 things that show where things are likely going.
22 And also, I should note, I've been in other
23 contexts where, say, the 2022 election, someone looks
24 at only one contest. And at least in this case, I
25 looked at, you know, multiple in 2022, right, not just

1 one election, not just, say, the endogenous contest and
2 let everything else alone. So that -- you know, and I
3 did that in part because I wanted to make sure I wasn't
4 just cherry picking, you know, one -- you know, we see
5 that Marcellais loses so we just go and do RPV on that
6 one and leave everything else alone and not knowing --
7 or doing a performance analysis, right. And so that
8 pattern was consistent across.
9 Q. Did you include in there the race in
10 Subdistrict 9A?
11 A. No, 9A is not -- that one is not included, no.
12 Q. Do you know if the Native American candidate of
13 choice won in District 9A? Subdistrict 9A?
14 A. Yeah, they did. The issue there is the very
15 small precinct size that's less of an issue in D15,
16 because D15 is the full -- you know, the full -- the
17 full district. Doesn't have a split district. And so
18 in D9A, the Native American-preferred candidate, you
19 know, when I did kind of the breakdown right, you know,
20 is winning and Native American voters are -- it looks
21 like, at least based on the precinct data combined with
22 the race data, you know, supportive of that winning
23 candidate.
24 Q. Do you have enough data to determine the Native
25 American candidate of choice in 9A?

1 A. Well, to me, I'm hesitant to do a full-blown
2 ecological inferences analysis on it. But I think
3 there's enough to triangulate where certain perfectly
4 comfortable making that case, yeah.
5 Q. But you didn't include it in this analysis,
6 right?
7 A. Well, I didn't include it in the RPV analysis,
8 but I have a separate subsection about that contest
9 specifically looking at, I think, Tables 3 and 4, kind
10 of breaking that logic down.
11 Q. Now, if I understand your opinion correctly,
12 you believe there is lower probative value to the
13 elections in 2018; is that accurate?
14 A. Yes.
15 Q. Why?
16 A. I mean, Dave Matthews Band showed up, you know.
17 2018 was -- there had been some sort of state laws, I'm
18 sure you know, that basically revolve around I think
19 addresses and stuff, voter addresses, and so it was I
20 think perceived by civil rights groups in the broader
21 Native American community that was going to reduce
22 Native American voting opportunities. And so there was
23 a large push in places like Turtle Mountain and other
24 areas to mobilize voters, get them to register, get
25 them to vote. So there was this overwhelming surge of

1 Native American voter turnout in -- specifically in
2 Turtle Mountain area, but probably the full state and
3 to the point that it's the kind of thing I've never
4 seen before. It's a very, very unusual election.
5 Q. Just to clarify, were you involved at all in
6 those voter ID cases in that time frame?
7 A. No.
8 Q. The information that you have about the
9 elections in 2018, where did you get that information
10 from that you just recited?
11 A. Just reading the news.
12 Q. Did any of that information come from
13 plaintiffs' attorneys?
14 A. Yeah, that was part of our discussion with
15 counsel about those specific contests -- or that
16 specific year as well, yeah.
17 Q. Did they provide you any written materials
18 about the 2018 elections?
19 A. No.
20 Q. Do you think that the Dave Matthews Band would
21 not come to North Dakota? No, I'm just kidding.
22 In the -- is it your understanding that in 2018
23 Native Americans did turn out in higher numbers?
24 A. Yes, it is my understanding that they did.
25 Q. And so have you accounted for that in any

1 mathematical sense in your analysis? In other words,
2 did you eliminate those 2018 elections from your
3 analysis?
4 A. I -- in this -- in this initial report, I did
5 not eliminate 2018. I discuss it, you know, rationales
6 for potentially eliminating it in a paragraph, and also
7 discuss it a little bit more in further depth in my
8 rebuttal report. But I didn't -- I wanted -- I
9 wanted -- even though I thought we should probably cut
10 it, I wanted to show it because if I didn't, we'd be
11 having that conversation right now, and I feel like
12 it -- either way you go, it's going to be a point of
13 dispute.
14 Q. You did choose to include those in the list,
15 the 2018 elections in the list on page 6, Table 1,
16 right?
17 A. Correct.
18 Q. In the year 2018, is it fair to say that the
19 Native Americans did overcome the barriers to their
20 turnout?
21 A. Well, at least in Turtle Mountain, the 2018
22 turnout among Native American voters was I think
23 around -- well, I have a number in my rebuttal report,
24 but it's the highest I've ever seen among turnout in
25 Native American voters. It's still not a hundred

1 percent or anything approaching that and, you know,
2 still below whites, I think, but it was -- it showed
3 that, you know, the turnout was pretty -- pretty
4 remarkable.
5 Q. Are you -- do you have any knowledge of the
6 settlement that took place in the voter ID cases that
7 were litigated around that time frame?
8 A. In terms of the outcome or the money?
9 Q. Just do you have any knowledge at all about the
10 settlement?
11 A. No.
12 Q. Do you know what steps the state agreed to take
13 to assist Native Americans to get voter IDs, as part of
14 the settlement of that case?
15 A. No, I don't know.
16 Q. Do you have knowledge of other steps that the
17 state takes to try to assist Native Americans in
18 exercising their right to vote?
19 A. I can't think of a -- can't think of anything
20 off the top of my head.
21 Q. You did a turnout analysis as part of your
22 rebuttal report, right?
23 A. Correct.
24 Q. When did you perform that analysis? Was it
25 prior to the time you did your initial report or after

1 the time you did your initial report?
2 A. After the initial report.
3 Q. That was for purposes of your rebuttal report
4 then, correct?
5 A. Yeah.
6 Q. I'm going to jump for a moment to a different
7 exhibit. I'm showing you Exhibit 39, which is a
8 two-page exhibit. And you've probably seen this. I'll
9 represent to you that this comes from Dr. Hood's
10 report. Does this look familiar?
11 A. It does.
12 Q. And it appears at least to show plaintiffs'
13 demonstrative exhibit -- or demonstrative District 1
14 with the Native American population overlaid. Does
15 that sound accurate?
16 A. Yeah, I mean, that looks broadly like -- yeah.
17 That's accurate, I guess.
18 Q. Is it your understanding that the Native
19 American population at the north side of this -- and
20 we're on the first page here of this exhibit -- that
21 the Native American population at the north side of
22 this demonstrative map, that those are individuals that
23 are living on or near the Turtle Mountain reservation?
24 A. Correct.
25 Q. And then down on the bottom, the southeast

1 corner there, that's individuals living on and near the
2 Spirit Lake reservation?
3 A. Yeah.
4 Q. Do I remember your testimony correctly that you
5 didn't actually draw this demonstrative map yourself?
6 A. That's correct.
7 Q. Is it fair to say that when the state was
8 conducting its redistricting, if it wanted to pull in a
9 substantial additional Native American population into
10 what was included in District 9, that the map has to be
11 drawn to extend all the way down to the Spirit Lake
12 reservation?
13 A. Yeah, that -- that's my understanding.
14 Q. There's not another substantial Native American
15 population right next to Turtle Mountain that can be
16 drawn from, other than Spirit Lake. Fair?
17 A. I think that's right. You'd have to do
18 something really funky to get another group.
19 Q. And both of your demonstrative exhibits -- I'm
20 looking at the first page here and I'm going to scroll
21 down to the second page. Both of them show almost the
22 entire Native American population from Turtle Mountain
23 and surroundings areas and Spirit Lake and surrounding
24 areas being within your new district?
25 A. Yes.

1 Q. Just give me 20 seconds here.
2 In looking here at demonstrative districts
3 number 2, it shows the entirety of Turtle Mountain plus
4 all the surrounding trust lands and almost all of
5 Spirit Lake and surrounding Native lands?
6 A. Yeah.
7 Q. Is it your expert opinion that in order for the
8 State of North Dakota to comply with the Voting Rights
9 Act, it has to combine Turtle Mountain and surrounding
10 Native lands with Spirit Lake and surrounding lands,
11 that any conceivable map has to do that?
12 A. Yeah. The functionality analysis, et cetera,
13 that I conducted just on District 9 and then looking at
14 D15 discretely, you're winding up with a situation
15 where a large share of Native Americans are not able to
16 elect candidates of choice; when you look at these
17 maps, they clearly can be.
18 Q. So the only way for North Dakota to comply with
19 the Voting Rights Act is to draw a map that combines
20 those two reservations and surrounding areas. The
21 parts in the middle can change, but the two ends of it
22 have to include those green areas shown on page 2 here
23 of this exhibit?
24 A. I mean, there could be a way that you could,
25 again, take potentially portions of the different

1 areas. But I think that wouldn't make sense from a
2 community of interest perspective and you would wind up
3 splitting the communities. What's nice about these
4 maps is it doesn't split the communities.
5 Q. If North Dakota split the communities by --
6 would it be in violation of the Voting Rights Act?
7 A. Potentially. I mean, I'd have to run the
8 numbers a little bit more closely.
9 Q. You haven't conducted an analysis, in other
10 words, that takes a portion of Turtle Mountain and a
11 portion of Spirit Lake into a single district?
12 A. Correct.
13 Q. And you don't have an opinion on whether that
14 would be a violation of the Voting Rights Act?
15 A. Not at this point.
16 Q. I'm going to go back to your report in this
17 case, Exhibit 38, and scroll down to page 2. This
18 says, in the last bullet point here, "An analysis of
19 plaintiffs' demonstrative maps show that Native
20 American-preferred candidates would succeed in carrying
21 these districts. In Demonstrative 1, of the 35
22 contests I analyzed, the Native American-preferred
23 candidate won 32 of 35 (91 percent). In Demonstrative
24 2, of the 28 contests I analyzed, the Native
25 American-preferred candidate won 26 of 28 (93

1 percent)."
2 Do you see that?
3 A. Yes.
4 Q. Is that another way of saying that when you
5 perform a functional analysis when you run past
6 elections as if they had been under your demonstrative
7 plans, the plan won 91 percent of the time that Native
8 Americans would have gotten their candidate of choice
9 and in the demonstrative 2, 93 percent of the time
10 Native Americans would have gotten their candidate of
11 choice?
12 MS. DANAHY: Objection --
13 THE WITNESS: That's correct.
14 MS. DANAHY: -- you keep referring to this
15 as "your demonstrative plan." I don't think that's
16 accurate.
17 BY MR. PHILLIPS:
18 Q. I'll say the demonstrative plan.
19 A. Yeah. That's correct.
20 Q. Under the Demonstrative Plan 1 and 2 then, the
21 Native American candidates of choice are extremely
22 likely to win all three seats in the district; isn't
23 that right?
24 A. Barring kind of unforeseen circumstances,
25 right, yeah.

1 Q. That would be one Senator and two members of
2 the House?
3 A. Correct.
4 Q. Over -- in both cases for both demonstratives,
5 over 90 percent of past elections would have come out
6 that way?
7 A. That's right. That's right.
8 Q. Is it fair to say that any other conceivable
9 map that in your opinion would comply with the Voting
10 Rights Act would have similar levels of Native American
11 candidate of choice being elected, we'll say 90 percent
12 plus?
13 A. I think the bar is more often than not.
14 Depending on what you're -- you know, the range of
15 waiting for, you know, appropriately rating for time,
16 endogenous and -- or endogeneity, and the presence or
17 absence of a Native American candidate.
18 Q. When you say "the bar," do you mean the legal
19 bar that needs to be passed?
20 A. Well, I think there's some dispute, but I think
21 at least according to Hood's article in SSQ, that's
22 kind of the sort of level that a lot of us are
23 operating under.
24 Q. Do you have an opinion on that as to whether
25 that's the bar?

1 A. Yeah, I would say that's what I use as my bar.
2 And then it's, you know, appropriately accounting for
3 these other factors that we've been considering as
4 potential trend lines and stuff like that. But a lot
5 of -- at least my understanding is a lot of this,
6 there's not always clear, bright lines, but try to
7 establish the bars that is the racially polarized
8 voting more often than not are white candidates
9 blocking -- or white voters blocking Native Americans
10 in this case from electing candidates of choice more
11 often than not, at least in terms of a Gingles III.
12 Q. Does the Voting Rights Act guarantee certain
13 outcomes in election?
14 A. Definitely not.
15 Q. It provides an opportunity to elect candidates
16 of choice, right?
17 A. Well, there's certain ways of drawing districts
18 that provide no opportunity, there's others that
19 provide a very high opportunity, there's others that
20 are somewhere in the middle.
21 Q. Would it be fair to -- oh, I'm sorry, I didn't
22 mean to cut you off. Go ahead and finish.
23 A. Well, some people might say, well, an
24 opportunity is -- 2018, look, it's possible. Native
25 Americans voted at such high rates that it's possible.

1 There's an opportunity if they just kept doing that,
2 then they could continue to do that. So I think that's
3 sort of disputed empirical point.
4 Q. Isn't that true, that they were able to turn
5 out in -- elect their candidate of choice in 2018?
6 A. Right, that's -- yeah, that's what I'm saying.
7 So some would say, well, that's an opportunity. The
8 Voting Rights Act makes you provide an opportunity.
9 But then when you conduct a more recent functionality
10 analysis, you see the opportunity's really not there.
11 Q. Based on 2022 elections?
12 A. And 2020.
13 Q. And we talked about how there might be
14 different ways to describe an opportunity. Would it be
15 fair to say that the demonstrative exhibits proposed by
16 the plaintiff -- the demonstrative maps proposed by the
17 plaintiffs would give an extremely high chance of
18 Native Americans --
19 COURT REPORTER: I'm sorry, I missed the
20 last part of that question with the paper shuffling.
21 THE WITNESS: Sorry. Sorry about that.
22 BY MR. PHILLIPS:
23 Q. I'm not sure exactly how I worded it. But the
24 demonstrative maps submitted by the plaintiffs in this
25 case, would it be fair to say that they give an

1 extremely high chance Native American to elect their
2 candidate of choice?
3 A. Yes.
4 Q. The Voting Rights Act doesn't require 90 plus
5 percent odds of electing a minority's candidate of
6 choice, does it?
7 A. No.
8 Q. I'm going to flip back to Exhibit 39. And on
9 this first page, this is showing plaintiffs'
10 demonstrative District 1. Do you know when it was
11 first proposed to North Dakota's legislature that a way
12 to comply with the Voting Rights Act would be to draw a
13 single district encompassing both reservations?
14 A. I don't.
15 Q. You weren't involved in that legislative
16 process?
17 A. No.
18 Q. Are you familiar with the testimony in front of
19 the legislature discussing subdistricts and how
20 subdistricts could be used to allow Native Americans to
21 overcome white bloc voting?
22 A. I think I knew that there was discussion and
23 testimony around that, I just -- I'm not familiar with
24 the specifics of it.
25 Q. Have you read any of the transcripts from the

1 legislative hearings?
2 A. No.
3 Q. All right. This will just take me a second
4 here. I'm going to show you some exhibits that were
5 looked at during Dr. Hood's deposition, and you may
6 even make reference to some of these in your rebuttal
7 report that we'll get to a little bit later. But we're
8 looking right now at what was marked at Dr. Hood's
9 deposition as Exhibit 9. Do you recognize this?
10 A. Yeah.
11 Q. Do you know what part of the state this map
12 represents?
13 A. Fargo.
14 Q. That's an urban population, right?
15 A. I mean, for North Dakota. Not that New Mexico
16 is huge either.
17 Q. Fargo is a city though, it's not a rural
18 community?
19 A. Correct. Fargo has a coffee shop. Pretty good
20 one. I liked Fargo a lot when I went there.
21 Q. So there are a number of sort of long, thin
22 districts here, right? For example, District 42, you
23 can see the area is kind of long and north to south?
24 A. Correct.
25 Q. Look at Exhibit 10. This has a District 18 is

1 similarly long and skinny, right?
2 A. Yep.
3 Q. And Exhibit 11, I'll just point out, it looks
4 like District 31, there's kind of a long, little finger
5 that sticks out at the -- that northeast corner.
6 Do you see that?
7 A. I do.
8 Q. Are you familiar with any of the legislative
9 history relating to the redistricting of what's shown
10 in this exhibit?
11 A. I'm trying to remember. I can't -- right off
12 the top of my head, I don't fully remember.
13 Q. Do you know what the -- what factors the
14 legislature took into account when it created the
15 districts shown on these three exhibits?
16 A. Well, I mean, they would have taken population
17 equality into account. I know that. Just because
18 everyone has to. In terms of various communities of
19 interest and those types of very important features, I
20 am not familiar with that.
21 Q. And Exhibit 10, this is Grand Forks. And I'm
22 going to skip over to Exhibit 11, that's Bismarck. Are
23 you familiar with those communities, Grand Forks and
24 Bismarck?
25 A. I mean, I haven't lived there or anything, but

1 I'm aware of them on the map, yeah.
2 Q. Those are cities, too, right, they're not rural
3 communities?
4 A. Correct.
5 Q. Have you -- so we looked earlier at -- I hope I
6 don't close this. We looked earlier at Exhibit 39 that
7 kind of overlaid that Native American population over
8 the demonstrative maps. Going back to, you know,
9 Exhibits 9, 10 and 11, have you seen similar overlays
10 of minority populations within these districts?
11 A. I don't recall if I've seen minority
12 populations in these specific areas.
13 Q. What about anywhere else in North Dakota, other
14 than in Districts 4 and 9?
15 A. I don't -- no, I've been pretty focused on 4
16 and 9, and then my analysis of these have focused more
17 on the compactness and things.
18 Q. So just by way of example -- I'll just try to
19 zoom in here. I'm showing you, it's Hood Exhibit 11.
20 A. Right.
21 Q. It shows 34 on there.
22 Do you see that?
23 A. Yeah.
24 Q. Do you know what is in the north end of 34 in
25 terms of white or minority populations and what's on

1 the south end of 34?
2 A. No, I'm not so familiar with the composition of
3 this electoral district.
4 Q. What about any other district in North Dakota
5 other than 4 and 9?
6 A. I haven't done a detailed analysis.
7 MR. PHILLIPS: I could use a ten-minute
8 break. Is this okay to take --
9 THE WITNESS: Sounds good.
10 MS. DANAHY: Yes.
11 (A break was taken at 1:41 p.m.)
12 BY MR. PHILLIPS:
13 Q. Dr. Collingwood, we're back on the record and
14 I'm showing you once again Exhibit 38. And this is
15 your initial report in this case, correct?
16 A. Correct.
17 Q. I'm just going to walk through a few specific
18 parts of it.
19 I'm not the only one hearing that truck?
20 A. Yeah, there's -- the county outside is doing
21 something with the road. So there's, like, a work
22 crew.
23 Q. Okay. I'm okay with it, as long as the court
24 reporter can understand you.
25 So I'm going to go to page 2 of that exhibit

1 and point your attention to this paragraph right here,
2 "In my reconstituted electoral performance analysis,
3 Native American-preferred candidates win handily in the
4 newly adopted Legislative Sub-District 9A. However,
5 Native American-preferred candidates disproportionately
6 lose in the newly adopted Legislative Sub-District 9B
7 because -- there's two becauses there -- because white
8 voters cohesively vote as a bloc against Native
9 American voters' preferred candidates."
10 Do you see that?
11 A. Yeah.
12 Q. Now, we looked earlier about your -- to your
13 conclusion in the Walen report. In that case, you did
14 conclude that the existence of Subdistrict 4A allowed
15 Native American voters to overcome white bloc voting;
16 is that right?
17 A. Yeah.
18 Q. And in 4A, there was very high Native American
19 population and 4B a very low Native American
20 population, right?
21 A. Correct.
22 Q. And 9A, there's a very high Native American
23 population and in 9B a very low Native American
24 population, right?
25 A. Relatively low. They're still, I mean -- you

1 know, compared to most other places in the U.S., still
2 very high.
3 Q. And when I say "population," you understand I
4 mean voting age population?
5 A. Yes.
6 Q. I'm going to scroll down to page -- or jump to
7 page 15 on this exhibit. And I'll start out looking at
8 a partial sentence here, but we can look at the overall
9 page as a whole. It says here kind in the middle, "it
10 necessarily follows that voting within the two
11 subdistricts is likewise racially polarized."
12 We discussed earlier your conclusion about
13 racially polarized voting in Subdistrict 9A and 9B. I
14 want to make sure I understand your opinion on that.
15 So what is your opinion in terms of racially polarized
16 voting in 9A and 9B, and how did you reach that
17 opinion?
18 A. My opinion that there is racially polarized
19 voting in the whole region 9 and that it's very
20 difficult to come to a conclusion otherwise for 9 or 9B
21 because when you look at constituent parts and look at
22 the individual precincts and their vote patterns and
23 the type of racial demographic in those precincts at
24 the subdistrict level, it lines up with their -- it's
25 consistent with the result that you see at the full

1 district level.
2 Q. And understand that I'm definitely a
3 nonscientist. What's the difference between that
4 analysis that you conducted to conclude that there's
5 racially polarized voting in 9A and 9B different from 9
6 as a whole?
7 A. Well, as a whole because there's -- there's
8 just more data, and there's a lot more variation among
9 where the different racial populations live. By
10 combining it, we can use ecological inference,
11 statistical methods similar to, for lack of a better
12 term, similar to some sort of regression analysis that
13 social scientists use, or every scientist uses really,
14 that specifically relates how a change in the
15 independent variable relates to the dependent variable,
16 in this case race relates to vote choice. And because
17 at the subdistrict level and -- it's just a limited
18 amount of data. Conducting a racially polarized voting
19 in those cases was a little bit more unclear. You
20 could still mechanically do it. I didn't do that. One
21 could.
22 Q. In the subdistrict?
23 A. Right. Right. One potentially could, for
24 sure. You just need a couple precincts to actually
25 physically do it. It's just that you're going to get

1 extremely wide confidence intervals and most likely --
2 again, I haven't done it. But most likely you're not
3 going to generate as useful of statistical conclusions,
4 and so you refrain from doing that, at least in this
5 case.
6 Q. Did you say earlier in your testimony that you
7 did read the deposition transcript of Dr. Hood's
8 deposition?
9 A. Yeah, I mean, at least I -- you know, I didn't
10 read the whole thing, but I went through it and tried
11 to make sense of different areas.
12 Q. Do you recall his testimony about the
13 sufficiency of the data to conclude -- or insufficiency
14 of the data to conclude racially polarized voting in 9A
15 and 9B.
16 A. Yeah, I think what he was -- he's kind of
17 saying a similar thing that I am. I mean, in general,
18 Dr. Hood and my -- at least our analysis, maybe not our
19 broader methodological approaches or interpretations,
20 at least the specifics of our analyses are pretty
21 similar, the results are pretty similar. And so I
22 think what he's saying also is that within the
23 subdistrict level, you know, it is limited data, and so
24 he's not running -- he's not executing these specific
25 statistical analyses that we do at the full district

1 level using specific type of statistical algorithms for
2 much the same reasons. I think that's what -- if my
3 memory serves correctly -- what he was saying.
4 Q. Do you disagree with his opinion on that in any
5 way?
6 A. I agree in the sense that in this case using,
7 say, a clear, statistical method, EI, ecological
8 inference, is best not done. But I -- I disagree in
9 the sense that you can -- you can logically back out
10 how these groups are almost certainly voting looking at
11 the subdistricts and looking at where people live, that
12 that's useful information and draw the conclusions that
13 voting is polarized there as well.
14 Q. Where people live, is it because -- I'm going
15 to say this in layman's terms, and please correct me if
16 I'm wrong. Is it because Native Americans tend to vote
17 for Democratic candidates and there are more Native
18 Americans in 9A, and white people tend to vote for
19 Republican candidates and there are many more whites in
20 9B?
21 A. That's the basic idea. But also then within
22 the precinct as well. Certain areas we know are very
23 high density Native American, look at that -- the vote
24 for this candidate here is either very Democratic or
25 very much for this Native candidate. In areas that are

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1 -- precinct specifically not just the full subdistrict
2 -- that are very white, you see the converse trend.
3 And that again -- that's the very basic underpinning of
4 all of this ecological inference work anyways.
5 Q. I've jumped to page 32 it. It says here, I've
6 got it highlighted, "District 9 in Demonstrative Plan 1
7 has a Reock compactness score that is higher (i.e.,
8 more compact) than five other districts in the plan
9 enacted by the legislature."
10 Do you see that?
11 A. Yeah.
12 Q. Now, is it your -- you've obviously read and
13 responded to Dr. Hood's expert report, correct?
14 A. Yeah.
15 Q. And is it your understanding that Dr. Hood has
16 opined that the District 9, as drawn, is more compact
17 than the Demonstrative Plans 1 and 2 submitted by the
18 plaintiffs; is that fair?
19 A. Yes.
20 Q. Do you disagree with his opinion in that
21 respect?
22 A. Not in that very specific respect.
23 Q. If I'm understanding your report here, you're
24 just pointing out that there are other districts within
25 North Dakota that have a more compact district?

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1 A. Less compact.
2 Q. I'm --
3 A. Yeah.
4 Q. Correct. Okay.
5 Now, in this report, you do look at Reock. I
6 don't believe you looked or mentioned in this initial
7 report the Polsby-Popper score; is that fair?
8 A. Yeah, I think that's right.
9 Q. Now, and we can look at it in a little bit here
10 in terms of the rebuttal report does mention
11 Polsby-Popper in quoting what Dr. Hood found. Did you,
12 yourself, run the Polsby-Popper score for compactness
13 on any of the districts you looked at?
14 A. Well, when I looked at these Reock scores, I
15 would have looked at Polsby-Popper because it just
16 comes out, but, you know, I just didn't include it.
17 Q. Is there a reason you didn't include it?
18 A. Not that I can think of. Sort of you start at
19 1 or end at 15, it seemed to be -- the point I was
20 making is that there is -- you know, in one of -- Reock
21 is probably the number one used measure, and so it's
22 just kind of a standard. The point I'm trying to make
23 here is there's other districts in the state in the
24 enacted plan that are -- have a lower Reock measure, or
25 just a lower measure. So I just, you know, stopped at

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1 that.
2 Q. I'm going to jump over here to Exhibit 37.
3 Now, in this one, you have included both Reock and
4 Polsby-Popper scores, correct?
5 A. Correct.
6 Q. Coming back to your Turtle Mountain report
7 here, is the -- is the Polsby-Popper score less
8 favorable in terms of compactness when you're measuring
9 the demonstrative plans than Reock?
10 A. I don't -- I'd have to look. If you're trying
11 to say that I excluded mentioning Polsby-Popper here
12 because it looked worse, the answer is no. You know,
13 it's just -- these are two independent reports. You
14 know, most of the time I try to do the same thing to
15 the extent that I can, but there's different points in
16 time you're writing these and you're on different time
17 constraints and those kinds of things. So that
18 wouldn't be the reason.
19 Q. Is there value in running different metrics for
20 compaction?
21 A. Yeah, yeah, for sure. I mean, if you had the
22 perfect world, you would have as many as humanly
23 possible in anything. But like everything, when you --
24 the more information you have in some ways, the better,
25 the more information you have, it can maybe cloud out

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1 the overall narrative or kind of set of results that
2 make it easier to digest for people.
3 Q. Do you recall which measures Dr. Hood looked at
4 in terms of compactness?
5 A. Yeah. Well he -- he looked at Reock, Popper
6 and the Schwartzberg, so also three, you know, common
7 measures.
8 Q. Sorry to shuffle my papers loudly there.
9 A. No worries.
10 Q. I may jump around a bit, so please bear with
11 me. And showing you Exhibit 40, which I believe is
12 your rebuttal report.
13 A. Okay.
14 Q. Do you recognize this as your rebuttal report?
15 A. Yes.
16 Q. Okay. I'll make sure that's large enough for
17 you. We'll go through some of the other details in a
18 moment, but let's look at these key findings first. It
19 looks like you've listed four key findings. Let's just
20 look at this first one. "Dr. Hood incorrectly
21 characterizes LD-9 as a Native American opportunity
22 district because he fails to account for turnout
23 differentials that make white voters a substantial
24 majority of the usual electorate in the district."
25 Do you see that?

1 A. I do.
2 Q. What do you mean by that?
3 A. Well, basically the legislature is drawing a
4 district that is majority, minority, so to speak, in
5 terms of its voting age population. But when you
6 actually look at who tends to vote and who doesn't tend
7 to vote by race, you see that in District 9 that the
8 white voting age -- sorry, white voters comprise a
9 larger share of the electorate, actually. So it's --
10 to that extent that there's strong racially polarized
11 voting, as I've demonstrated, it means that this is
12 functionally not really an opportunity district.
13 Q. Specifically because of turnout?
14 A. That is one of the main reasons, yeah.
15 Specific -- yeah, I mean, you need to incorporate that,
16 I think.
17 Q. There are a higher percent -- or there is a
18 higher percentage of Native American voting age
19 population in LD-9 than there is whites, correct?
20 A. Correct.
21 Q. Does the Voting Rights Act -- I may have asked
22 you this before, but I'll ask again. Does the Voting
23 Rights Act guarantee certain election outcomes?
24 A. No.
25 Q. It really just requires an opportunity to

1 elect, right?
2 A. I mean, that's -- that's --
3 MS. DANAHY: I'm going to object; it calls
4 for a legal conclusion.
5 THE WITNESS: Yeah, I think that is still
6 somewhat in that ballpark.
7 BY MR. PHILLIPS:
8 Q. Did Native Americans have an opportunity to
9 elect their candidates of choice in 2018?
10 A. In 2018, their preferred candidates I think did
11 win, yeah.
12 Q. So they had the opportunity to elect those
13 candidates of their choice?
14 A. Sure.
15 Q. I want to make sure I understand this
16 conceptually. Is turnout relevant to a Gingles
17 analysis, any of the Gingles prongs? Or is it only
18 part of your functional analysis?
19 A. Gingles III. I think Dr. Hood's methods for
20 calculating functionality I think incorporates turnout.
21 Q. Do you disagree with the use of turnout in a
22 functional analysis?
23 A. Well, I mean, I was just saying that turnout
24 isn't theoretically as incorporated. The way that
25 Dr. Hood does his functionality analysis is certainly

1 different than mine. Mine looks at actual election
2 results whereas his requires some sort of -- you know,
3 a couple steps in the process. In this case,
4 empirically our results I think were, at least in the
5 same elections we looked at, were very similar. So
6 while I would say that his way of doing it is probably
7 acceptable and he probably is using a -- maybe a method
8 that's somewhere in the literature, the way that I do
9 it is a little more based on actual real results.
10 There's -- there's not really some sort of, you know,
11 estimate this then estimate that kind of thing. So I
12 think it's a little cleaner.
13 Q. Let's look at the second bullet point here. It
14 says -- I'm on Exhibit 40 still -- "Dr. Hood's Gingles
15 III analysis is methodologically flawed because (1) he
16 equally weighs all elections even though some are
17 significantly more probative than others."
18 Do you see that part?
19 A. Yeah.
20 Q. Do you remember when we looked at your Walen
21 report, you had a chart in there that showed whether
22 the Native American candidate of choice was elected in
23 your functional analysis for all the elections you
24 analyzed?
25 A. Yes.

1 Q. And that chart is not in your report in this
2 case either, your initial report or your rebuttal
3 report, right?
4 A. That's right.
5 Q. Do you understand Dr. Hood's opinion that he
6 issued in his report and in his deposition testimony to
7 be a critique of your expert opinion?
8 A. I'm not sure. I mean, it -- it seems --
9 usually the way these reports go is I write a report
10 and then an expert for the defense comes in and
11 critiques it, just as a matter of the process. So in
12 that sense, yeah, that's how I interpret it. But on
13 the other hand, you know, a lot of it is his own
14 independent analysis.
15 Q. Dr. Hood didn't choose the elections to
16 analyze, did he?
17 A. You mean like -- I guess I'm not really
18 quite --
19 Q. So --
20 A. -- sure what you mean.
21 Q. So we looked at those tables that showed all
22 the elections that you analyzed in your analysis, both
23 in this case and in the Walen case. Dr. Hood didn't
24 add any elections or remove any of those elections from
25 his analysis, he just relied on the same ones you did;

1 isn't that fair?
2 A. Well, in terms of his -- these broader tables
3 that he's making an assessment. But I think he only
4 conducted RPV on, like, 2018 and 2020 or something. So
5 in that sense, he did exclude some of the ones I looked
6 at. I think -- I think that's right.
7 Q. Do you remember for sure which ones he
8 excluded?
9 A. I mean, I'd have to go and look at his report.
10 I don't have it on me.
11 Q. To be clear, when you conducted your analysis,
12 you could have included any reports that you deemed
13 appropriate -- or any elections you deemed appropriate,
14 right?
15 A. Yeah, I think so. I don't know of any reason
16 why I couldn't do that.
17 Q. And you could have excluded any election that
18 you wanted to?
19 A. Yeah. I guess. I mean, I would be open to
20 critique in that response, and so that's why I included
21 2018.
22 Q. So number two here, reading this, it says, "Dr.
23 Hood's Gingles III analysis is methodologically flawed
24 because he includes election results from packed
25 subdistrict 9A in his combined analysis but excludes

1 election results from cracked District 15."
2 Do you see that?
3 A. Yeah.
4 Q. Are you saying that the election results from
5 Subdistrict 9A should not be included in a VRA, Voting
6 Rights Act, analysis of District 9?
7 A. Well, obviously I'm not saying that, because I
8 included it in some of my analyses, so I think it's
9 still important to look at. But in terms of coming to
10 say that Gingles III perspective, we know that 9A is
11 going to perform, we see that. That's the specific
12 reason for it. What we really want to look at is the
13 full subdistrict and then are there other Native
14 Americans that are in the area that could be
15 incorporated and given representation, and he doesn't
16 look at that, i.e., 15.
17 Q. Is it fair to say it's not error or improper
18 methodology to consider 9A in your analysis, right?
19 A. I don't think you would be including that in,
20 like, the overall kind of combined analysis, like
21 equally weighting 9A and 9B. Those are discrete
22 analyses.
23 Q. Did you include 4A in your analysis in the
24 Walen case?
25 A. No, I did them discretely, 4, 4A, 4B. With a

1 d-i-s-c-r-e-t-e-l-y.
2 Q. So I understand your opinion, I think, with
3 respect to the alleged cracking of the Native Americans
4 that are currently residing in District 15. But help
5 me understand how 9A and 9B constitute packing in
6 general.
7 A. Wait, say that again.
8 Q. Well, how -- I can understand your argument
9 that Native Americans that currently reside in District
10 15 were not included in 9. Is anything wrong -- or
11 what do you see as being wrong with the creation of a
12 subdistrict in 9 though that includes Native Americans
13 in a single subdistrict at a high percentage?
14 A. Well, it's not occurring in an island, per se.
15 The result of -- I mean, you just have to look at the
16 result. Let's just take 2022 legislative elections as
17 an example. And, you know, I've raised this point, but
18 you have a broader Native American community in the
19 region that could be incorporated into a D9 that
20 wasn't. So they don't get anything. And what that
21 means is that the full Native American population in D9
22 also doesn't get their elected candidate of choice at
23 the State Senate level. And then the Native American
24 population that's in 9B also doesn't get
25 representation. Whereas if you effectively draw a

1 district similar to -- doesn't have to be exact, but
2 similar to the demonstratives, my analysis shows that
3 you'd get three for three. Right. So you have to look
4 at it in kind of the bigger regional perspective.
5 Q. When it comes to District 9, it's -- there's
6 another nearby Native American population in 15, right?
7 So in the Spirit Lake reservation. And -- is that
8 correct?
9 A. Yes.
10 Q. There's not something similar with respect to
11 District 4, right?
12 A. That's right.
13 Q. So in 4, you have an opportunity and you got
14 three seats, one Senator and two House members, and you
15 have the ability to allow Native Americans almost a
16 guaranteed chance to elect a House member, right?
17 A. Correct.
18 Q. And that complies with the Voting Rights Act,
19 in your opinion, in the Walen case, right?
20 A. Correct.
21 Q. Now, over in the northeastern part of the state
22 where we're talking about Turtle Mountain and Spirit
23 Lake, as drawn, the District 9 and its subdistricts do
24 something similar, right, it gets nearly -- a very high
25 chance of Native Americans electing their candidate of

1 choice for one House seat, right?
2 A. Right.
3 Q. And a nearly guaranteed chance to lose another
4 House seat, right?
5 A. Right.
6 Q. And the Senate, it could go either way, right?
7 There's a more than 50 percentage Native American age
8 voting population in 9, right?
9 A. No, I -- I don't think it could go either way.
10 I mean, looking at this last election, which is the
11 most probative, I mean, the State Senator, who is
12 Native American, lost. He's incumbent, too.
13 Incumbents typically win. And then also 2020. So the
14 more recent elections show reversal of Native Americans
15 and their ability to elect candidates of choice in that
16 specific area off of 51 or 52 percent Native American
17 single race VAP, voting age population.
18 Q. In election years where Native Americans have a
19 higher turnout, 2018 for example, they are capable of
20 electing their candidates of choice in District 9,
21 correct?
22 A. In 2018, they did in that district elect
23 candidates of choice. But, again, as I demonstrated in
24 my rebuttal report, that is an extremely anomalous
25 election. So it's not the trend. Unless North Dakota

1 wants to pay for Dave Matthews to repeatedly show up on
2 election day. No, just kidding.
3 Q. I've seen Dave Matthews, and I want to say it
4 was in Fargo. So I think they've come. Long, long
5 ago.
6 But in any event, in your opinion though, North
7 Dakota is required to draw a district that gives Native
8 Americans over 90 percent chance of electing all three
9 seats to be --
10 A. No. No, that's -- the demonstrative is really
11 to demonstrate -- and again, I didn't draw that. But
12 it's to demonstrate that it's very possible to draw a
13 district that provides a very good opportunity at least
14 for Native American voters in the region. And the
15 legislature just didn't do that. You know, I don't
16 know why. I don't -- I don't know why they didn't, you
17 know, but it doesn't have to be 90 percent. There's
18 other cases I've worked on where, you know, we're
19 looking at more often than not, et cetera, et cetera.
20 Q. But in this --
21 MS. DANAHY: I lost the court reporter
22 from my screen, I don't if she's --
23 MR. PHILLIPS: I can still see her.
24 COURT REPORTER: I'm here.
25 MS. DANAHY: Okay.

1 BY MR. PHILLIPS:
2 Q. Now, in this case though, if I understand your
3 earlier testimony, in order to prevent breaking up
4 communities of interest, any VRA compliant district has
5 to encompass both reservations, the Turtle Mountain and
6 the Spirit Lake reservations. Isn't that what you said
7 earlier?
8 A. Well, we'd have to look at the transcript
9 exactly what I said. But I think what I was trying to
10 say is it would be better to keep these communities of
11 interest together and that that necessarily would lend
12 itself to putting the two reservations in the same
13 district. And by doing so, you do result in a
14 demonstrative that produces -- or a district that
15 produces that 90 percent number, so whatever 91 to 93,
16 that I had calculated.
17 Q. Are you aware of any potential demonstrative
18 map that's compliant with the Voting Rights Act in your
19 opinion and which results in the Native American
20 candidate of choice winning in less than 90 percent of
21 the elections?
22 A. The only demonstratives I've seen and/or looked
23 at are the ones -- basically the ones that I've
24 analyzed in my report that were given to me.
25 Q. Is it your understanding that the North Dakota

1 legislature created the subdistricts in 9, at least in
2 part, to comply with the Voting Rights Act?
3 A. That's my understanding.
4 Q. And is it fair to say they essentially used the
5 same method that they applied in District 4?
6 MS. DANAHY: Objection --
7 THE WITNESS: Yeah, I --
8 MS. DANAHY: -- vague and --
9 THE WITNESS: -- yeah --
10 COURT REPORTER: I'm sorry, Ms. Danahy, I
11 didn't hear your objection.
12 MS. DANAHY: I said it was vague and calls
13 for speculation.
14 THE WITNESS: I don't -- I don't know if
15 that is -- it seems likely, but I don't know.
16 BY MR. PHILLIPS:
17 Q. In 4, they created one subdistrict that was
18 heavily populated with Native American voting age
19 population and one subdistrict that was heavily
20 populated with whites in the voting age population,
21 correct?
22 A. The comparisons I see are similar, yes.
23 Q. They did something similar in 9 with one
24 subdistrict having a heavy Native American voting age
25 population and one subdistrict having a heavy white

1 voting age population, right?
2 A. Well, it's relatively heavy. You know, I mean,
3 there's still the Native American voters who are
4 outside of the Turtle Mountain tribal reservation lands
5 are not getting represented. There's more of them in
6 that 9B than there are Native Americans in 4B.
7 Q. But you didn't conduct an analysis in 9 to
8 determine if the state could have drawn the subdistrict
9 differently to pull in more Native American population
10 into 9A, right?
11 A. I didn't do that specifically, but I would be
12 very doubtful if they could have drawn a map that was
13 equally performing -- or that was giving Native
14 Americans a strong opportunity to elect candidates of
15 choice in both districts, in both subdistricts.
16 So that's why it's like -- while you might look
17 at those numbers and say 9A is really packed because
18 it's, like 80 percent Native American voting age
19 population, and the other district is -- those voters
20 are cracked. But in that context of just only looking
21 at 9 by itself, and you -- you could make that
22 statement, but it's going to be specific about the
23 individuals who are in the different sides of the
24 boundary, not the overall ability to elect candidates
25 of choice. That wouldn't change, depending on how you

1 drew those numbers, at least at -- you know, you could
2 maybe potentially make it worse where you drop it down,
3 those numbers go down -- in fact, goes down across the
4 board in, say, Subdistrict 9A, and now you have a
5 situation where two white-preferred candidates get in.
6 That's probably what the legislature was concerned
7 about.
8 Q. You may have testified to this already, but
9 just to make sure I'm clear, are you familiar with the
10 testimony at all in front of the legislature where it
11 was -- the subdistricts were discussed?
12 MS. DANAHY: Objection; asked and
13 answered.
14 THE WITNESS: No, I'm not.
15 BY MR. PHILLIPS:
16 Q. Looking at this second point here still,
17 "Dr. Hood's Gingles III analysis is methodologically
18 flawed because (3) he does not address subdistrict 9B
19 alone."
20 Do you see that?
21 A. Yeah.
22 Q. What do you mean by that?
23 A. Well, if he's incorporating 9A into his
24 combined analysis but not 9B, because 9B is, like, a --
25 not an opportunity. What he's doing is he's looking at

1 the, quote, opportunity to elect, or something like
2 that. I think that's what he's doing. And he's not
3 incorporating 9B. And so, you know, if he was going to
4 include 9A, he should include 9B, although I don't -- I
5 think he should still split them all up and look at
6 them separately anyways, because they're different
7 units of analysis. One's a full district, one's a
8 subdistrict.
9 Q. So the critique is not splitting them up and
10 addressing them individually?
11 A. Yeah. Because at issue is mainly the full --
12 the full -- the full composition.
13 Q. Is Gingles prong III present in 9B?
14 A. Well, yeah, yeah, because, you know, the Native
15 Americans getting blocked there from their -- electing
16 their candidates of choice is certainly there. So
17 there's white bloc voting of those individuals' ability
18 to elect. Of course, if you look at 9B by itself, then
19 you're not getting over, you know, the Gingles I
20 criterion. That's why you need to, you know, look at
21 the full picture.
22 Q. What about 9A? Is Gingles prong III present in
23 9A?
24 A. No.
25 Q. Similar to 4B and 4A, right?

1 A. Correct.
2 Q. And there's no Voting Rights Act violation in
3 District 4, right?
4 A. Correct. According to my opinion.
5 Q. "Dr. Hood's Gingles III analysis is
6 methodologically flawed because (4) he fails to account
7 for specific circumstances that make the 2018 elections
8 of little or no probative value."
9 Do you see that?
10 A. Yeah.
11 Q. Again, who -- you chose the elections to
12 include in your initial report, right?
13 A. Yeah. So I see what you're saying. You're
14 saying, well, since you included them, he should have
15 looked at them. I get why you'd say that. But I had a
16 paragraph in my initial report that said, hey, look,
17 I'm including these, but still this needs, you know,
18 caution to be interpreted, you know, from a cautious
19 standpoint given these unique circumstances. And, you
20 know, Dr. Hood just took that and didn't really
21 incorporate that and just looked at them anyways.
22 Q. Is it your opinion that the court should give
23 no weight to the 2018 elections?
24 MS. DANAHY: Objection; calls for a legal
25 conclusion.

1 THE WITNESS: I think -- it's a tough
2 call. For me, my opinion is probably include them but
3 slightly for transparency so that the court can see the
4 overall picture, but then also incorporate evidence
5 about voter turnout by race that I provided so they can
6 see the full picture that this is, you know, an extreme
7 anomaly and to be, you know, certainly careful about
8 weighting those at the same rate that we weight the
9 2022 or 2020 elections at.
10 BY MR. PHILLIPS:
11 Q. Let's look at your third conclusion here.
12 "Dr. Hood's conclusion that LD-15 satisfied Gingles II
13 and III but not Gingles I because the existing LD-15 is
14 not majority Native Voting Age Population is
15 methodologically flawed," and so forth.
16 Do you see that point?
17 A. I do.
18 Q. Dr. Hood opines that District 15, as drawn,
19 could not function as an opportunity district.
20 Do you agree with that statement?
21 A. I do.
22 Q. Do you disagree with him on that point?
23 A. I agree as drawn with him. But the whole
24 purpose of a Gingles III in this case is to see the
25 broader regional context. And if we incorporated a

1 broader regional context, those folks in D15 that are
2 in Spirit Lake would be incorporated into a district
3 incorporating Turtle Mountain, and so they would be
4 clearing the Gingles I threshold.
5 Q. And that combination district that pulls in
6 both reservations, that gives over 90 percent chance
7 that Native Americans elect all three candidates?
8 A. Based on my functionality analysis, yeah, that
9 would being correct.
10 Q. And the state had no choice but to do that in
11 order to comply with the Voting Rights Act?
12 MS. DANAHY: Objection; calls for legal
13 conclusion.
14 THE WITNESS: Well, I guess we'll leave
15 that to the court.
16 BY MR. PHILLIPS:
17 Q. Well, when the state drew District 9, it
18 included the Turtle Mountain reservation and the
19 surrounding trust lands, right?
20 A. In the fuller district, yeah.
21 Q. There's no other large Native American -- or I
22 should say compact Native American population in the
23 area except for the Spirit Lake reservation, right?
24 A. That's my understanding.
25 Q. Let's look at the fourth point here. I won't

1 read the whole thing out loud, I'll just let you take a
2 look at it, this fourth bullet point. I'll let you
3 read it, so you can just let me know when you're done.
4 A. Yeah, I'm done.
5 Q. Dr. Hood admitted in his deposition that he
6 made a mistake on the number of county splits, right?
7 Did you read that in his transcript?
8 A. Yeah, those things are understandable. It's
9 easy to do. I certainly don't think it was done on
10 purpose or anything like that.
11 Q. The concluding sentence here says, "The
12 demonstrative plan performs comparably or better on
13 other districting criteria as well."
14 Do you see that?
15 A. Yeah.
16 Q. What other criteria are you referring to in
17 this sentence?
18 A. Specifically the communities of interest off
19 reservation in particular is one of them. So, you
20 know, 9A, 9B, some off-reservation lands are getting
21 cut, and by incorporating the full reservation and
22 off-reservation trust lands into a demonstrative, for
23 example, that's no longer happening.
24 Q. When you talk about community of interest then
25 in this context, are you only referring to the people

1 on the Turtle Mountain reservation and in the
2 surrounding trust lands as being a community of
3 interest?
4 A. I mean, in that specific statement, sure. As
5 you know, community of interest, or COI, is, you know,
6 incorporating of a bunch of different groups and ideas
7 and economies and things. So it can be hard to define.
8 Q. Is it -- do you have an opinion on whether the
9 peoples of the Turtle Mountain reservation and the
10 peoples of the Spirit Lake reservation constitute a
11 single community of interest?
12 A. I think there's certainly more of a community
13 of interest relative to the Turtle Mountain folks than
14 people over in Cavalier County that's just as far or
15 farther away.
16 Q. So it's not your opinion that the people of the
17 Turtle Mountain reservation and the people of the
18 Spirit Lake reservation constitute a single community
19 of interest?
20 MS. DANAHY: Objection; mischaracterizes
21 his testimony.
22 THE WITNESS: I think it's a broader
23 community of interest. I think there's increasing work
24 in political science and social science that shows that
25 Native Americans have a common sense of shared identity

1 given their differences -- or different general
2 exclusion in American life, but that they also have
3 their own separate identities as well depending on, you
4 know, the tribe and the tribal region. It's just one
5 of those things where they're broadly a community of
6 interest, in my opinion, but then also discrete
7 communities of interest as well.
8 Q. Do you --
9 A. It makes sense to combine them into a -- you
10 know, a district when they're in the -- both in the
11 similar region, right. I know this is rural North
12 Dakota, so still there's some distance, but it makes
13 sense. And previous legislatures have done that
14 accordingly.
15 Q. Are you familiar with -- generally speaking,
16 familiar with local politics in either the Turtle
17 Mountain reservation or the Spirit Lake reservation?
18 A. I'm not familiar with the internal tribal
19 politics and, you know, tribal elections, for example,
20 if they have those. I'm not as intimately familiar
21 with those.
22 Q. Do you -- oh, I'm sorry, go ahead.
23 A. No, yeah, so -- go ahead.
24 Q. Do you know who's on the governing body of each
25 tribe, Turtle Mountain and Spirit Lake?

1 A. I don't think so.
2 Q. Are you familiar with any specific local issues
3 that are important to the Turtle Mountain or Spirit
4 Lake Tribe?
5 A. Well, I would imagine that voting
6 representation is one issue that they share.
7 Q. You said you can imagine. Do you have any
8 factual basis for that statement?
9 A. Yeah, I think in talking with counsel at one
10 point, they were lining up discussions or there were
11 discussions between the different tribes and the heads
12 of the different tribes, as Spirit Lake and Turtle
13 Mountain, to come together to try to form a district
14 that could better represent them.
15 Q. That's -- did I hear you right that that's
16 based on conversations you had with counsel for
17 plaintiffs?
18 A. Yeah, I think so.
19 Q. So I had asked -- we were look -- up on the
20 screen here, we were looking at that last point and the
21 last sentence that said the demonstrative plan performs
22 comparatively or better on other districting criteria
23 as well. And we talked about communities of interest
24 as being one of the criteria that you're referencing
25 here. Is there any other criterias that you're

1 referencing in that sentence?
2 A. Well, I would be getting at it later on in the
3 report. I would -- we'd have to go there and discuss
4 that. But I think that was the main point of that.
5 Q. I lost track of time. Where were we -- when
6 did we take our last break? Are we about time or no?
7 A. We're -- yeah, I think we came back at -- we've
8 been going for about 50 minutes, so we can take a
9 ten-minute if you want.
10 MR. PHILLIPS: Yeah, let's do that. Let's
11 take ten minutes. I've found that if I don't take
12 breaks every hour, the court reporters include all my
13 uhs and ums.
14 THE WITNESS: Yeah, it is tough to read
15 yourself, you know, in the transcripts.
16 (A break was taken at 2:47 p.m.)
17 BY MR. PHILLIPS:
18 Q. Dr. Collingwood, I'm going to try to streamline
19 the rest of this to get done so I can get out of here
20 in the next hour or so. So we'll shoot for that. In
21 light of that, I might jump around a little bit here,
22 so please bear with me.
23 I'm going to share my screen again. Okay. Can
24 you see looks like Exhibit 40 on my screen?
25 A. Yes.

1 Q. All right. And this is your rebuttal report in
2 this case?
3 A. Yes.
4 Q. Let's go down to page 6. And here at the end
5 of this last paragraph, it talks about statewide total
6 Native voting age population grew from 5.1 percent to
7 5.9 percent from 2010 to 2020. Do you see that part?
8 And then it says proportionally that would equate to
9 three State Senate seats and six State House seats?
10 A. Yes.
11 Q. The -- does the voting act -- or Voting Rights
12 Act require or guarantee proportionality?
13 MS. DANAHY: Objection; calls for a legal
14 conclusion.
15 THE WITNESS: It's my understanding,
16 through some case law, that it does not.
17 BY MR. PHILLIPS:
18 Q. And it doesn't require -- am I correct that the
19 statistics here in this paragraph are talking about
20 statewide voting age population?
21 A. That's statewide, yeah.
22 Q. I mean, that's not necessarily true in the
23 districts at issue, correct?
24 A. Correct.
25 Q. On to the next page, it says -- it's talking

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1 about the most recent elections here on page 7. And it
2 says, "Native American candidates of choice lost all 8
3 elections in 2022 in District 9." And it says, "This
4 is 100 percent block rate."
5 Do you see that?
6 A. Yes.
7 Q. That doesn't include the election in 9A, right?
8 A. That's just full District 9.
9 Q. Remind me -- and you didn't include the
10 election in 9A in your analysis at all, correct?
11 A. That -- that's not -- that's not true. I
12 included 9A in my initial report. But in terms of the
13 overall picture of making the VRA claim, 9A is not
14 really relevant to the -- to the claimants here.
15 Q. Thank you for that clarification.
16 This is the part of the day, Dr. Collingwood,
17 where my fatigue sets in. So please feel free to
18 correct me.
19 The -- did you -- please explain that once more
20 though in terms of how 9A -- the ways in which 9A are
21 not relevant to your analysis in this case.
22 A. The claim is -- really pertains to the full
23 District 9 and whether that is diluting Native
24 Americans' ability to elect candidates of choice in
25 specifically the full region. So that's why I

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1 incorporated D15 as well in that area. When you look
2 at the full region and do, say, a Gingles III analysis
3 on 9 and 15 combined, you can see that Native Americans
4 really do not have -- in those separate districts,
5 they're definitely under represented relative due to
6 their ability to elect candidates of choice. So 9A is
7 effectively producing one out of three possible seats.
8 So that's the issue, right?
9 Q. Nine -- collectively when you consider 9 and
10 its subdistricts, it has essentially one guaranteed
11 seat?
12 A. In a nutshell, sure, yes.
13 Q. Do Native Americans have an opportunity to
14 elect the candidate of their choice for Senate in the
15 overall District 9 as drawn?
16 A. Well, based on the most recent available data,
17 no. Based on some earlier elections, we see that there
18 are sometimes -- they do -- when turnout is very, very
19 high or certain circumstances, their preferred
20 candidate does get in.
21 Q. In the context of vote dilution, is it fair to
22 say that you're interested in a pattern?
23 A. I think that is potentially a -- different
24 experts might have a different approach on that, but
25 certainly over time is something that if you see a

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1 trend going from, say, an ability to elect to an
2 ability not to elect, especially in context where
3 districts could be drawn that provided a better
4 opportunity, that certainly lines up with vote
5 dilution, yes.
6 Q. And you disagree with those other experts who
7 do it differently?
8 A. I mean, it's just -- it's context specific, it
9 really is. You have to look at all the different
10 aspects to each one of these cases.
11 Q. I'm going to scroll down here a little bit on
12 to page 7. It says, "Dr. Hood's approach of simply
13 summing together all the election contests and equally
14 weighing them," and so forth.
15 Do you see that paragraph?
16 A. Yeah.
17 Q. It's fair to say that you criticize Dr. Hood
18 for doing that, summing up the election contests and
19 equally weighing them? That's a poor methodology in
20 your opinion; is that correct?
21 A. In this particular case, I think it is,
22 because, first of all, you have 2018 that's a totally
23 anomalous election. And then you see a very distinct
24 pattern kind of in more recent elections. I can see
25 why he did that, because it's easy to just, like, get

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1 the result, take the average, weigh it or whatever,
2 treat them all the same, sum them up and be, like,
3 here's a number. In other context, that might make,
4 you know, fine sense because the conclusion wouldn't
5 necessarily be different whether you treat them all the
6 same or weigh more recent elections as more probative.
7 This election circumstance is one such that you
8 see that disjuncture, and so that needs to be taken
9 into consideration, in my opinion.
10 Q. I think you testified -- and correct me if I'm
11 wrong, you testified earlier that some experts would
12 consider the 2018 results as evidence that Native
13 Americans do have an opportunity to elect candidates of
14 their choice if they turn out to vote.
15 Do you recall that testimony?
16 A. I can see how someone would. I mean, someone
17 who's a defense expert obviously would say that. So
18 those are the experts I would have in mind, they would
19 naturally because that's in the interest of their
20 client. And they are empirical -- these things did --
21 did occur, right, so I can't -- you know, it's
22 empirical, it's data. Dr. Hood can look at it, I can
23 look at it, we see the same thing, right, these things
24 occurred, so have to agree to some extent that this --
25 in that context, there is an opportunity. But, you

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1 know, how much to weigh or discount that relative to
2 overall trend line, you know, that's where there's, you
3 know, differences of opinion in approaches.
4 Q. Ultimately, it's up to the court to decide,
5 right?
6 A. It seems like that's an approach in life in
7 this type of work that we all face, yes.
8 Q. Scrolling down here to this Section B on page 7
9 of your report. I'll just read the title here,
10 "Including Subdistrict 9A in the Gingles III Analysis
11 is Methodologically Incorrect."
12 Do you see that?
13 A. Yeah.
14 Q. Just to be clear, too, in the overall context
15 of this, your rebuttal report is solely targeted at
16 rebutting Dr. Hood's report, right?
17 A. I believe that was the point of it, yeah.
18 Q. Just clarifying for the record.
19 A. Yeah.
20 Q. Is it your opinion that including Subdistrict
21 9A in the Gingles III analysis is incorrect
22 methodologically?
23 A. Yeah, I just -- I don't know why you would
24 treat that as, like, equally weighted relative to the
25 overall district and situation that's more part of the

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1 dispute really, at least that's my understanding.
2 Because what it's going to do is it's going to say, oh,
3 look, we include 9A, Native Americans win every single
4 time, so, boom, there you go. There is -- you know,
5 the state has done its due diligence or what have you
6 and provided an opportunity for these voters to elect
7 candidates of choice.
8 Q. Did you include a Gingles III analysis of
9 District 4A in your Walen report?
10 A. Well, again, so what I do is I do do a
11 performance analysis for each one just for the record,
12 but I don't then combine it altogether into one
13 aggregate number.
14 Q. Are you saying -- help me understand. Why
15 isn't it relevant to include a subdistrict that has a
16 high chance of Native Americans electing a candidate of
17 their choice in the overall analysis of District 9?
18 A. Because the -- there's no dispute that drawing
19 a subdistrict in 9A -- if we're only looking at 9A, you
20 got to draw a subdistrict. The state -- and I would
21 imagine the plaintiffs would agree on that point. But
22 the fact that that then leaves out an additional
23 representative -- likely Representative and a State
24 Senator, that's the broader issue under discussion.
25 And so given that, you need to look at the -- how the

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1 full district and/or proposed district operates under a
2 Gingles III environment.
3 Q. Native Americans have a very high percentage
4 chance of electing a candidate of their choice in one
5 of the subdistricts in 9, right?
6 A. Yeah, 9A.
7 Q. And in 2018, under the functional analysis in
8 2018, Native Americans had the opportunity to elect the
9 candidate of their choice in the overall district,
10 which would be a Senate seat, right?
11 A. Right.
12 Q. I'll skip over a few things that just don't
13 matter. Let's go down to page 9. Generally speaking,
14 so we have Plaintiffs' Demonstrative Districts and then
15 you've got some subsections here. Let's talk first
16 about population deviation. This is a rebuttal report
17 of Dr. Hood's opinion, correct?
18 A. Correct.
19 Q. What's your understanding of Dr. Hood's opinion
20 with respect to population deviation?
21 A. I think my sense would be the closer to zero,
22 you know, that would be the goal. That's -- yeah.
23 Q. Do you disagree with that?
24 A. I mean, in all else equal, no. But when
25 there's other factors, especially voting rights

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1 factors, that come into play, so that exact zero
2 population deviation potentially becomes a little less
3 relevant.
4 Q. Is it fair to say that the Demonstrative Plans
5 1 and 2 deviate from the ideal population more than the
6 enacted LD-9?
7 A. Yeah, I mean, you can see the numbers. I've
8 got them there.
9 Q. Looking at compactness next, Dr. Hood had
10 analyzed Reock, Polsby-Popper and Schwartzberg. What's
11 Schwartzberg-Adjusted adjusted, by the way? It says
12 there in that sentence.
13 A. I'd have -- I'd have -- I'd have to look.
14 These are -- it's the same thing -- you know, this
15 would be what he did. I read about it, but I'm sort
16 of, you know, forgetting at the moment the very
17 specific component. I think it has to do also with a
18 perimeter of -- I think it's the relative to a circle
19 that has the perimeter of the same length as the map,
20 or something like that.
21 Q. I believe it's Dr. Hood's opinion that --
22 A. And then he adjusted that because it doesn't
23 always go from zero to one, so he normalized it. I
24 think that was what they adjusted, which is -- which
25 is, like, a reasonable, you know, thing to do.

1 Q. I believe it's Dr. Hood's opinion that LD-9 as
2 drawn is more compact than the Demonstrative Plans 1
3 and 2 submitted by plaintiffs. Is that your
4 understanding as well?
5 A. I don't think it's his opinion. I just think
6 it's an empirical fact.
7 Q. That's -- you don't disagree with that?
8 A. No, you can see the numbers.
9 Q. There's a section here addressing the effect of
10 water boundaries next at the bottom of page 9 and page
11 10.
12 Do you see that?
13 A. Yeah.
14 Q. Explain that, please, in layman's terms. What
15 is the effect of a water boundary on a compactness
16 level?
17 A. It basically grows the overall area of the
18 perimeter or the space of the perimeter, even though,
19 like, as the bird flies, if you went right across that,
20 it's not too -- it's not -- it's not that long, but
21 because it's going in and out and in and out, you can
22 see that if you actually take the total perimeter size,
23 it's really going to grow the perimeter of the map.
24 And so then when you go to make your compactness
25 calculation, it's going to reduce the overall

1 compactness score. And you can see that because, you
2 know, we have these other demonstratives that -- or
3 these other districts that you showed earlier, and some
4 of the other districts with relatively lower
5 compactness scores also have, you know, large water
6 boundaries.
7 Q. If I'm understanding the Reock score, you start
8 out by drawing the smallest possible circle around the
9 district, right?
10 A. That's right.
11 Q. And how is that impacted by the -- by a river
12 boundary? For example, what we're looking at on page
13 10, Plaintiffs' Demonstrative Plan 1, how would the
14 Reock score change based on that river boundary there?
15 A. That may not change as much, but the other two
16 would.
17 Q. Reock score wouldn't be impacted by river
18 boundaries, just Schwartzberg and Polsby-Popper, right?
19 MS. DANAHY: Objection; mischaracterizes
20 the testimony.
21 THE WITNESS: I wouldn't say that. I'd
22 have to go double check on the numbers. But certainly
23 more with the other ones.
24 BY MR. PHILLIPS:
25 Q. Do you know how much more the other ones would

1 be effected?
2 A. I haven't come across a -- or I didn't conduct
3 an analysis. What you'd have to do is kind of, you
4 know, cut out those water boundaries and put in a
5 straight line and then take the difference. And so I
6 didn't do that. That's -- that -- I don't think that
7 that kind of analysis is built in. It might be, and I
8 just don't know, to, like, Maptitude. So I'd probably
9 have to do that, you know, like, program it myself.
10 And, you know, that's fairly complicated to do.
11 Q. What's the reason for -- I think you testified
12 earlier that it's preferable to run multiple
13 compactness measures. Am I -- is that a fair
14 characterization of your testimony previously?
15 A. I think in general, when it comes to, you know,
16 scientific analysis and expert reports and social
17 science, that, you know, the more is generally better.
18 The downside is that that can be too much, it can be
19 overbearing.
20 Q. Now, on the next page, you've got some examples
21 here of other districts, 18, 46, and, you know, like 34
22 here. You've got examples of other river-bounded
23 districts, right?
24 A. Correct. Or just areas -- districts that have
25 a similar or lower compactness scores as a

1 demonstration that -- the argument about compactness is
2 sort of not -- it only works in isolation, but not with
3 these other kind of features of geography and other
4 landscapes and things.
5 Q. Just as an example, in 18, for example, the
6 river dominates the entire eastern side of that
7 district, right?
8 A. Yes.
9 Q. Same thing for 46, it runs along the entire
10 side of the district?
11 A. Right. But you can go inland instead,
12 potentially.
13 Q. I'm not sure I follow that.
14 A. Well -- I mean, I'd have to look at the
15 population, but theoretically those districts could go
16 east to west instead of north to south, you know.
17 Q. Understood. Now, this district we're looking
18 again at page 10 of plaintiffs' demonstrative plan.
19 The river does not run along the entire side of the
20 district, does it?
21 A. That would be one -- one right-angled river if
22 it did.
23 Q. Yeah. The reason this demonstrative exhibit --
24 or, sorry, demonstrative plan runs north, south is
25 specifically to connect the two reservations, right?

1 A. I mean, that's the -- that's my understanding.
2 I don't want to use language that says that's the only
3 reason. But that's -- that's my understanding.
4 Q. Is it your opinion that any district that
5 complies with the Voting Rights Act would have to run
6 in a sort of north-south direction like this?
7 MS. DANAHY: Objection; calls for legal
8 conclusion.
9 THE WITNESS: Well, based on my empirical
10 statistical analysis, yes, but -- given the Gingles
11 criteria.
12 BY MR. PHILLIPS:
13 Q. Let's come down to the bottom of page 11 here.
14 You talk about a Supreme Court case. Is this a case
15 that you worked on, this Perry case?
16 A. No, but it's a fairly -- it comes up, you know,
17 from time to time in different cases I've worked on.
18 Q. And what's the purpose for including this map
19 on page 12 in your report?
20 A. Basically, the idea is to show, first of all,
21 there's north to south districts and that, you know,
22 different communities of color, in this case Hispanic
23 communities, are being connected and fairly wide
24 regions -- sorry, wide -- long regions and that the
25 scores, you know, Reock scores, are similar or lower

1 than the demonstratives in the Turtle Mountain Spirit
2 Lake area and that these are effectively compliant with
3 the Voting Rights Act.
4 Q. And, just to be clear, is it your understanding
5 that Dr. Hood's opinion is that the compactness scores
6 for the District 9, as enacted, are better than the
7 compactness scores for the demonstrative plans?
8 A. I don't think it's an opinion. It's the scores
9 for those specific districts are higher. I guess --
10 you know, I get sometimes these legal opinion ways of
11 being, it's just -- it's an empirical reality.
12 Q. Compactness is something that legislatures do
13 need to account for when they're doing redistricting,
14 right?
15 A. Yeah, it's a pretty commonly examined measure,
16 one way that we evaluate or they evaluate maps.
17 Q. Is it fair to say that redistricting analyses
18 are highly local?
19 A. I guess -- I think I know where you're going
20 with that, but maybe you could specify a little bit
21 more.
22 Q. Well, this map is in Texas, right?
23 A. I thought that's where you were going.
24 Right. But under the Voting Rights Act, it's
25 still a national kind of interpretation as applied

1 across the country. So that's why I think it's
2 relevant.
3 Q. I am correct though that it is a map of a
4 portion of Texas?
5 A. Yes, this is Texas. Yeah.
6 Q. I mean, the North Dakota legislature didn't
7 consider this Texas map when it did its redistricting
8 in North Dakota, did it?
9 A. I'm --
10 MS. DANAHY: Objection; calls for a legal
11 conclusion.
12 THE WITNESS: My guess -- yeah, they might
13 have. I don't know. I don't know.
14 BY MR. PHILLIPS:
15 Q. Is it your opinion that they were required to
16 account for this map in the redistricting process?
17 A. I don't know.
18 MS. DANAHY: Objection; that calls for a
19 legal conclusion. I'm not sure the . . .
20 MR. PHILLIPS: Any further objection?
21 BY MR. PHILLIPS:
22 Q. Let's look at the next case down towards the
23 bottom of that page 12, and there's a map on 13.
24 Abbott v. Perez. Did you work on that case?
25 A. No.

1 Q. Now, this map that is shown here on page 13 is
2 kind of a, say, long, skinny district; is that fair?
3 Fair characterization?
4 A. It has some interesting characteristics to it,
5 yes.
6 Q. What are those interesting characteristics?
7 A. A lot of little jut outs and certainly a thin
8 connecter -- long, thin connecter in the middle with
9 some more jut outs presumably to gather different
10 communities, some areas where, you know, the -- it
11 almost looks like the district is only a street wide or
12 something.
13 Q. It generally follows the interstate there, I
14 think, right? I can't -- I mean, I think that's 35.
15 A. Yeah.
16 Q. Do you -- and it's my understanding this case
17 involved Hispanic populations; is that accurate?
18 A. Yeah.
19 Q. Do you know the percentage of Hispanic voting
20 age population down there in the San Antonio end of
21 this district?
22 A. I don't know off the top of my head, but it
23 would be high. San Antonio is one of the larger Latino
24 Hispanic populations in the U.S. for a big city.
25 Q. What about the Hispanic population up in the

1 Austin portion of this district?
2 A. Right, so that would be -- Austin overall is
3 not as large of Hispanic population, but certainly
4 there's Hispanic Latino areas. So I think that's where
5 -- other than some additional pockets, that's where
6 this district's connecting those populations together.
7 Q. Now, there are other cities along the way in
8 this case, right, there's New Braunfels, San Marcos,
9 Caldwell. I don't know if I can see otherwise or
10 remember what else is there. But there are communities
11 along the way, right, in this --
12 A. Yeah.
13 Q. Do you know the -- do you know the Hispanic
14 population in these various communities along that
15 strip in the middle?
16 A. I don't know exactly. You know, I think those
17 communities are all relatively small and, you know, I
18 don't know exactly where the Hispanic populations are
19 located, you know, kind of, quote, along the way.
20 Q. Looking at Exhibit 39, do you know the
21 population of Native Americans in the sort of white
22 area between the two reservations on page 1?
23 A. No, it doesn't -- I mean, it's probably not
24 huge. I haven't done a block-by-block sort of closer
25 examination here.

1 Q. It's small though, right? The Native American
2 population between the Turtle Mountain reservation and
3 the Spirit Lake reservation is small; is that a fair --
4 A. That's my -- yeah, I think that's right.
5 Q. Scrolling down a little bit further on your
6 rebuttal report on Exhibit 40, there's an LD-23 graphic
7 here.
8 Do you see that?
9 A. Yes.
10 Q. What's the purpose of including this image?
11 A. This is mainly to document that there are,
12 quote, land bridges, as written by Dr. Hood, in other
13 areas of the state. So even if we did concede that
14 that's a, quote, land bridge, and so therefore because
15 it's a land -- so the argument is there's a land bridge
16 so therefore we shouldn't have that district, well,
17 there's land bridges, quote, unquote, in other areas in
18 other districts and that those, quote, land bridges are
19 even smaller.
20 Q. Are you familiar with the legislative history
21 relating to the creation of this area here with
22 District 23 and District 1?
23 A. No. I'm not intimately familiar with the
24 reasons why there's these different types of shorter,
25 smaller connecting areas. All I know is that they

1 exist and that they're much smaller than what the
2 demonstrative connecting area, as it were, is. That
3 was the point.
4 Q. The land bridge in Demonstrative Plans 1 and 2
5 is longer than what you're seeing here with District
6 23; is that -- that's fair?
7 A. That's what I -- yeah. And, I mean, I don't
8 really like using the term "land bridge." I'm using
9 that term with respect to that term used by Dr. Hood.
10 Q. Well, in this case, what we're looking at there
11 with -- in the image here on page 14, do you know if
12 anything is being connected? So, you know, we looked
13 earlier at the demonstrative plans and how they're
14 essentially connecting the two reservations. Are you
15 aware of what, if anything, the districts here shown on
16 page 14 are connecting?
17 A. I'm sure they are connecting things because
18 that's, you know, why the district is like that
19 probably. Could be a population balancing issue.
20 Again, I just -- I'm looking at the maps, I see
21 something that's, you know, in line with this argument
22 that's being proffered and simply demonstrating that
23 the line is smaller than what we have in demonstrative.
24 I don't know the reasons and rationale behind all that.
25 Q. Is the same true with respect to the next -- or

1 page 15 here? There's an image here of enacted LD-31.
2 I assume it's on here because of this little --
3 northeast corner?
4 A. Yes.
5 Q. Again, do you have any legislative reasons that
6 went into creation of the District 31?
7 A. No.
8 Q. The -- down here on page 16, there's discussion
9 of the distance between the reservations, and Dr. Hood
10 had talked about the distance between 77 miles apart
11 centroid to centroid, and I believe you put a shorter
12 distance here.
13 Do you see that part?
14 A. Yes.
15 Q. I understand that you want to use a different
16 measure, but do you disagree with Dr. Hood that
17 centroid to centroid the distance is 77 miles if you
18 were to use that measure?
19 A. I didn't calculate centroid, but I -- I don't
20 see why he would be making that up. I'm sure his
21 numbers are reliable. And so I took it at face value
22 and, you know, just wanted to show that there was
23 different methods of showing distance, and this is one
24 of them.
25 Q. How did you determine your distance of 55

1 miles? What are you measuring?
2 A. The boundaries of the two reservations.
3 Q. That's still 55 miles, correct?
4 A. 54.69.
5 Q. If we go down to page 18 of your report, you
6 say, "Moreover as the statewide map of Plaintiffs'
7 Demonstrative Plan 1 shows, a number of the enacted
8 plan's districts are larger in geographic size than
9 Plaintiffs' demonstrative LD-9."
10 What's the significance of smaller or larger
11 districts?
12 A. I think the point is to show that this district
13 is not particularly unique. So it's showing that
14 there's other districts that are less compact on
15 various measures that there's other districts that have
16 much, much smaller connection -- quote, connection
17 areas and then that the configuration of this district
18 is wholly visually within the bounds of what the state
19 is doing already. And so -- and you can visually see
20 that, and this is what occurs in, you know, very rural
21 areas is you can get these large district
22 configurations and that our demonstratives here, the
23 ones that we've looked at, you -- they're not
24 particularly stand out in any way.
25 Q. Do any other districts in North Dakota have two

1 reservations within them, other than, you know, the
2 demonstrative plan?
3 A. I don't think so. I don't know for sure. The
4 issue is that this is the large -- I think the largest
5 area of Native American concentration in the state.
6 And then of course the MHA Nation, which I
7 think is in 4A and B is kind of a combination of
8 different tribal groups, but I think it's within the
9 same overall boundary of one reservation.
10 Q. Is there any other district in North Dakota
11 that has a high Native American voting age population
12 at each end of a, we'll say, long district?
13 A. I don't know. I don't think so.
14 Q. You talk here in this paragraph at the bottom
15 of page 18 about the 1993 to 2002 version of LD-12.
16 Do you see that?
17 A. Yeah.
18 Q. What's the significance of that?
19 A. Well, it's to show that the -- it's not unusual
20 for the district in this case to go north to south.
21 You know, just because the state drew east to west
22 doesn't mean it's some sort of natural configuration in
23 that while Rolette County isn't in that initial 1993,
24 2002 district, it's still a similarly configured map.
25 And so you can visually show that a north to south

1 district is certainly -- has precedent here.
2 Q. Did the 1993 to 2002 version of LD-12 connect
3 the Turtle Mountain and Spirit Lake reservations?
4 A. That is the difference here. And so because
5 the Turtle Mountain's in Rolette county, and so it
6 is -- you know, that's the main difference. But if
7 we're on this, you know, land bridge, quote, unquote
8 argument, again, you can see that there's a similar
9 north to south through I think that's Pierce County.
10 And so there's precedent for doing that.
11 Q. Scrolling down to page 19, it discusses
12 communities of interest, I know we talked about this a
13 little earlier, I just want to make sure I understand
14 your testimony. Do you have knowledge of the history
15 of each of the tribes that are located in the Turtle
16 Mountain and Spirit Lake?
17 A. Only through speaking with counsel. But I
18 don't have, like, a deep historical knowledge of the
19 two tribes and, you know, that kind of thing.
20 Q. I'm sorry to cut you off there. Were you done?
21 A. Yes.
22 Q. Are you incorporating into your opinion any of
23 the information that you obtained from counsel in that
24 regard?
25 A. Well, yeah, I think to the extent that the --

1 the heads of the two tribes and communities were very
2 much open to having a shared district speaks to a
3 community of interest. If they -- if they didn't see a
4 shared commonality, they would not want to create a
5 north-to-south district.
6 Q. The proposed districts would give the Native
7 Americans in both reservations over 90 percent chance
8 of electing all three candidates within the district,
9 right?
10 A. Yeah. I mean, according to my performance
11 analysis. I mean, in reality, the number could be a
12 little lower, it could be a little higher.
13 Q. And certainly a reason why the, you know,
14 individuals representing those two tribes would want a
15 combined district, right?
16 A. There could be a variety of motivations for
17 individuals who are wanting that, that I don't know
18 about.
19 Q. Other than that motivation, are you aware of
20 any reasons the two tribes would want to be connected
21 in a single district?
22 A. I don't know all the detailed reasons about
23 that.
24 Q. In the 2021 redistricting, did the state break
25 up any individual reservations? I mean, does any

1 district or -- split reservation into two?
2 A. I haven't done a state by -- a
3 district-by-district analysis on splits, so I don't
4 know.
5 Q. The districts, as drawn, 15 and 9, they don't
6 split either the Turtle Mountain reservation or the
7 Spirit Lake reservation into individual reservations,
8 correct?
9 A. That's -- I'm pretty sure that's right, yeah.
10 Q. The governing body of the Turtle Mountain
11 tribe, do you know if its jurisdiction extends beyond
12 the boundaries of the reservation into the trust lands?
13 A. I don't know how the trust lands and the
14 jurisdiction works. I was -- I think that might be a
15 case-by-case basis from one tribe to the next. I think
16 it's somewhat of a complicated issue that, you know,
17 lawyer -- lawyers in that area would know a lot about.
18 Q. Please correct me if my understanding is wrong,
19 but I under -- my understanding is that 9A has the
20 Turtle Mountain reservation and some trust lands and
21 that there are additional trust lands in 9B; is that
22 fair?
23 A. That's what I think, too.
24 Q. Do you have any opinion as to whether that
25 splits up communities of interest, or a community of

1 interest?
2 A. Well, it splits up communities of interest
3 across 9A and 9B. I mean, it just makes sense to keep
4 the tribal off-reservation trust lands with the tribe.
5 I think here in this case, the legislature was focused
6 on potentially population equality within, you know,
7 this higher area, and so that's why they did that. But
8 it certainly, you know, is splitting that up.
9 Q. Population equality is a constitutional
10 mandate, right?
11 A. Yeah.
12 Q. The legislature can't violate that population
13 equality principle, correct?
14 A. Well, yeah, but they could have drawn the
15 district north to south instead and they wouldn't have
16 this issue.
17 Q. And in your opinion, that's the only option the
18 state could have taken and still be in compliance with
19 the Voting Rights Act?
20 MS. DANAHY: Objection; calls for a legal
21 conclusion.
22 THE WITNESS: Yeah, I think in -- you
23 know, based on my analysis, I think that's right.
24 BY MR. PHILLIPS:
25 Q. Let's scroll down here to page 21. It talks

1 about core retention.
2 Do you see that?
3 A. Yeah.
4 Q. There's a sentence in here that -- initially,
5 you talk about Dr. Hood's opinion and then you say,
6 "The more salient question is how much additional
7 disturbance to actual voters would Plaintiffs'
8 demonstrative plan cause compared to the enacted plan."
9 Help me understand why comparing the
10 demonstrative plans to the enacted plan is a more
11 salient question than what Dr. Hood addressed.
12 A. Well, you're trying to look at people who are
13 getting moved around, because there's people that were
14 getting moved around from the previous map to the
15 enacted map, and that's what -- for example, if you
16 look at the next map, this one, so the purple, blue
17 area down to the right, they are getting moved into a
18 different -- in a new district in both the
19 demonstratives and the enacted. So in a sense, you're
20 taking them off the table. And then it's really just
21 the people in the blue -- or the pink who are kind of
22 moved who otherwise wouldn't be moved. And that's
23 only, like, 13 percent. So it's not -- you know, it's
24 not this huge number.
25 Q. When the legislature did its redistricting in

1 2021, they would have compared the prior districting to
2 the new -- to the enacted district, right?
3 A. Yeah, I think what they probably would have
4 done is for each -- each district, they're going to
5 look at, you know, the share of the population that's
6 still in that district from the previous year, like at
7 a block-by-block level I think is usually how it's
8 done.
9 Q. Is it your opinion that the legislature should
10 have drawn a map similar to Demonstrative Plan 1 or
11 Demonstrative Plan 2 that connects the two
12 reservations, that they should have done that in 2021?
13 A. Well, I don't know how -- I mean, obviously I
14 would say that, you know, I mean, given kind of what
15 we've been discussing. It's possible that the key
16 decision makers -- it just didn't -- they didn't even
17 though, they didn't think about it. Sometimes you get
18 stuck in a particular map format and, you know, there's
19 only so many maps you can make, et cetera, et cetera.
20 It could have gone down that sort of path dependence.
21 But it's also logical to -- and -- yeah, I guess I'm
22 sort of starting to speculate a little bit, so I don't
23 want to -- I don't want to do that.
24 Q. The -- apologies, just give me 20 seconds here.
25 If the legislature had gone with a plan that --

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1 in which LD-9 connected the Turtle Mountain reservation
2 and the Spirit Lake reservation and they wanted to
3 analyze core retention, they would have compared the
4 old districting in the last ten years to the new plan,
5 right? They -- right?
6 A. Yeah, but it's just not that simple, because, I
7 mean, when you break it down a little bit more into
8 detail, you start to paint a different picture. It's
9 just that with core retention, you kind of have this --
10 it's something you would do on a whole map and so you
11 can get a sense all over the place. And so -- but then
12 when you start to break it down into potential areas
13 like this, usually that should require a more detailed
14 analysis. And for a variety of reasons, legislatures
15 or other motivations, there's time constraints, they --
16 capacity limitations, they -- they just -- they maybe
17 just don't do this right.
18 Q. So under what circumstances should the -- would
19 the legislature have compared LD-9 as it was drawn with
20 the plaintiffs' proposed plans? That's what I don't
21 understand that we have -- why would the legislature
22 compare those two maps?
23 A. Well, they -- suppose -- well, I don't actually
24 know, but they wouldn't have had a demonstrative,
25 right? But they could have -- in the areas -- well,

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1 they know this area has VRA consideration because they
2 drew the subdistricts. And so in areas where there's a
3 possible VRA claim, it's in my experience usually there
4 becomes more detailed types of analyses. That's part
5 of the issues with these redistrict criteria, core
6 retention, compactness and things like this. They're
7 good in the sense they provide an overall picture of
8 the whole plan, the whole map, the whole state
9 legislature, make sure things look good at least kind
10 of at face value. But more detailed specific areas
11 where there's possible claims, VRA claims, they
12 would -- I mean, they would just need -- [technical
13 disruption] -- be more creative at individual level.
14 COURT REPORTER: I'm sorry, you broke up
15 in the last part of your answer. Can you restate that
16 last sentence?
17 THE WITNESS: They would have to do
18 analysis more kind of at an individual case-by-case
19 analysis. Something like that.
20 BY MR. PHILLIPS:
21 Q. If -- I'll give you my understanding of what
22 core retention is, and you please correct me if your
23 understanding is different. My understanding is that
24 core retention would look at the people who previously
25 resided in, voted in the old LD-9, and then you compare

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1 that to the new LD-9 as enacted and find out what
2 percentage of the people who voted in the old LD-9 are
3 still voting in the new LD-9, and that percentage is
4 your core retention.
5 A. That's correct.
6 Q. Okay. And so when the legislature did this
7 analysis, they may have compared the old LD-9 to what
8 ultimately they passed, or they could have compared it
9 to the -- compared the old LD-9 to, for example,
10 plaintiffs' demonstrative plans or to the map submitted
11 as part of the Marcellais amendment?
12 MS. DANAHY: I'm going to --
13 MR. PHILLIPS: Go ahead.
14 MS. DANAHY: Sorry to interrupt. I'm just
15 going to object. I think this assumes facts not in
16 evidence about what the legislature did or did not do.
17 BY MR. PHILLIPS:
18 Q. Well, I guess the -- am I wrong that in all
19 cases the legislature would be comparing the old
20 enacted LD-9 to some new map, not comparing two new
21 maps?
22 A. That's probably what they did. I mean, I can
23 see why -- I mean, I can -- I can -- I understand why
24 Dr. Hood is doing this analysis, it's common analysis.
25 So I just -- there's other analyses that can be done

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1 that maybe not -- it's not as cookie cutter
2 straightforward.
3 Q. In 2021, before the state passed its
4 redistricting plan, the -- you know, the -- what was
5 ultimately enacted was just a proposed map, right? I
6 mean, it wasn't -- it was just a proposal?
7 A. I don't -- yeah, there's usually a bunch of
8 proposals and they choose one and vote it in.
9 Q. So there was one proposal that ended up
10 becoming the enacted plan. There was another proposal
11 that connected the two reservations. Are you aware of
12 that proposal?
13 A. Not in detail. But I'm sure it would be
14 somewhat similar to what we have here.
15 Q. When the legislature was considering core
16 retention as part of the traditional redistricting
17 criteria --
18 MS. DANAHY: I'm going to object again. I
19 don't know that there's --
20 MR. PHILLIPS: Let me finish my question
21 though, please.
22 BY MR. PHILLIPS:
23 Q. If the legislature was analyzing core retention
24 as a traditional redistricting criteria, is there any
25 reason why they would compare two proposed maps instead

1 of the old map with a proposed map?
2 MR. PHILLIPS: Now you can make your
3 objection.
4 MS. DANAHY: I think by the time you
5 finished that question, it resolved my objection.
6 THE WITNESS: There's -- yeah, I mean,
7 that's pretty common to do that. I don't know if they
8 did it, but that's pretty common to do.
9 BY MR. PHILLIPS:
10 Q. Are you of an opinion one way or the other as
11 to whether the legislature was required to do that
12 comparison?
13 A. I don't --
14 MS. DANAHY: Objection; calls for a legal
15 conclusion.
16 THE WITNESS: I don't know if they're
17 required to do it. It's just -- it's something that's
18 commonly done all over when it comes to redistricting.
19 It -- but whether it's, like, required, I don't know.
20 That's probably case by case or not required.
21 MR. PHILLIPS: I do have some more
22 questions, by I do need to take a short break. Should
23 we just come back in ten minutes?
24 THE WITNESS: Sounds good.
25 MS. DANAHY: Yeah.

1 (A break was taken at 4:01 p.m.)
2 BY MR. PHILLIPS:
3 Q. Dr. Collingwood, I'm showing you Exhibit 38
4 again, which is your initial expert report, and I'm
5 going to scroll down to the bottom of page 2 and top of
6 page 3. This lists some data sources.
7 Do you see that?
8 A. Yes.
9 Q. Is this a comprehensive list of all of the data
10 sources you relied on in forming your opinion in this
11 case?
12 A. Yes.
13 Q. The -- I'm going to direct your attention to
14 this Dave's Redistricting 2020 census VTD file. What
15 is that?
16 A. That's that Dave's Redistricting free software
17 that you can draw maps and compare map plans and
18 compactment scores that I referenced earlier. You can
19 also download, like VTD or precinct files -- sorry, the
20 unit of analysis is the precinct or the voting
21 tabulation district, VTD, and that also includes, like,
22 census data and American Community Survey data,
23 aggregated to the VTD, which is used in racially
24 polarized voting analysis.
25 Q. And I just want to understand the sources of

1 your data. Did this 2020 census VTD file and the data
2 that it contained, did that originate from Dave's
3 Redistricting?
4 A. No, it -- it originates in Dave's
5 Redistricting, it is pulled directly from census
6 products. So you could download the exact same file
7 from, like, census redistricting, it's just that the
8 workflow in this case is easier for me because I've
9 become very familiar with Dave's.
10 Q. And do you know what source Dave's
11 Redistricting has for the data that it has?
12 A. Well, it uses census data, for population and
13 demographic counts for voting age population. It does
14 also provide American Community Survey data, which is,
15 like, similar to census data. It's available at
16 different units, like blocks -- block routes and stuff.
17 Q. That American -- oh, I'm sorry, go ahead.
18 A. Yeah, American Community Survey. And then it
19 also has election results that are taken from the
20 respective secretaries of state and provides that data.
21 It kind of links it all together when it's not always
22 linked together in its raw forms. So that's why a lot
23 of people like it, and it's free, unlike Maptitude.
24 Q. Did you include in your analysis any of the
25 data from the American Community Survey?

1 A. Not in the reports. Not in the reports.
2 Q. So does that data inform any of your opinions
3 in this case? I'm talking about the American Community
4 Survey data.
5 A. No, I think I'm using strictly census voting
6 age -- sorry, census data.
7 Q. And I think you had mentioned election outcome
8 data is contained within Dave's Redistricting as well?
9 A. Yes, but I didn't use that, I -- my general
10 process is to go to the Redistricting Data Hub, which
11 is kind of a clearinghouse, you might be familiar with
12 it. And it's got data on all the states and stuff, and
13 it's a pretty good resource. And there's an
14 organization, I think it's, like, based out of
15 University of Florida, maybe Harvard, it's called VEST,
16 I think it's like Voting and Election Science Team.
17 And they compile VTD data sets, usually going back
18 three cycles or so, like 2020 to 2016, and they -- they
19 take data from secretaries of state and then -- and
20 usually that data is coming in from, like, you know,
21 precinct and precinct and VTD, the boundaries are
22 slightly different. It's a little bit confusing, but
23 they make minor adjustments. And so I like that data
24 because it comes in a shapefile format, I can map if I
25 need to. And VTDs and blocks line up, so I can do

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1 spatial lagging for precinct analysis -- or performance
2 analysis. Like, that's not always available.
3 Sometimes they have, like, topic ticket contests, but
4 they might not have down ballot ones, or they didn't
5 have, like, 2022 data yet posted. In that case, I
6 just -- I gather data from the actual secretary of
7 state and, you know, use actual election returns. So
8 that's my general process when I do these things.
9 Q. I'm going to talk in a moment about the
10 specific feature that you might have used in
11 redistricting, but I just want to be clear I understand
12 which data you relied on in forming your opinion
13 originated to you from Dave's Redistricting.
14 A. From Dave's, if memory serves, it's only the
15 census voting age population data is what I'm using
16 from Dave's.
17 Q. Right. And then voting age population data.
18 Okay. And let's talk about the features. What
19 features within Dave's Redistricting app would you use
20 in forming your opinion in this case?
21 A. Mainly the -- the compact -- the compactness
22 scores. Let me think.
23 Q. So when we talked earlier about calculating
24 Reock, for example --
25 A. Yeah.

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1 Q. Anything else besides compactness scores that
2 you use Dave's Redistricting to calculate?
3 A. No, I don't think so.
4 Q. Did you generate any images through Dave's
5 Redistricting?
6 A. I don't think so. The images are either
7 generated through Maptitude, straight up Google maps,
8 or via R.
9 Q. What was the last thing you said?
10 A. Or via R.
11 Q. The -- anything that was generated with
12 Maptitude, would that have been done by plaintiffs'
13 counsel?
14 MS. DANAHY: Objection; mischaracterizes
15 testimony.
16 THE WITNESS: I -- well, yeah, I would
17 have said, okay, I want this type of map and then
18 they'd generate it. I'm just going to have to look at
19 it, et cetera, et cetera. I would have -- you know,
20 the problem with Maptitude is you need a -- if you're
21 just going to use it everywhere, you need, like, it's a
22 fairly expensive license. So typically it's, like, a
23 case-by-case situation, like, if I'm drawing the maps.
24 BY MR. PHILLIPS:
25 Q. Whenever you reference voting age population

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1 within your report, was that information gathered from
2 Dave's Redistricting?
3 A. Except for block -- the block data. So there's
4 two types of -- there's the VTD, which is the -- you
5 know, sort of the census's version of the precinct.
6 And Dave's makes that -- compiles that data, so I use
7 that. But then when I use, like, electroperformance
8 analysis and deal with split precincts, I just read in
9 a file off the Internet -- that sounds -- off the
10 census website that contains blocks, say, for North
11 Dakota, spatial blocks, and then that is -- so that's
12 not from Dave's directly, that's directly from the
13 census, but it's the same underlying data.
14 Q. But then you import that data into Dave's; is
15 that correct?
16 A. No, that would be -- I would do that in R.
17 Q. Got it.
18 A. Yeah.
19 Q. Do you know what company created Dave's
20 Redistricting?
21 A. Trying to remember. It might be just like a --
22 like an academic researcher, someone who's interested
23 in redistricting, I assume Dave. But I -- I think --
24 so I don't know that, you know, the -- kind of
25 origination story of Dave's.

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1 Q. Do you know who owns it today?
2 A. No. I assume Dave, but I don't know for sure.
3 Q. Have you reviewed any documentation from the
4 Dave's Redistricting website about the app and how it
5 works?
6 A. Yeah, there -- I mean, when I started using it
7 more, maybe a year or two ago, there were times when I
8 tried to read a lot of documentation. I don't, you
9 know, obviously recall that all off the top of my head.
10 But it all makes sense and totally was above board.
11 Q. Do you remember documentation explaining how
12 Dave's calculates compactness scores?
13 A. Vaguely. But, yeah, I can't site it directly,
14 but I -- I have looked at that.
15 Q. How does Dave's calculate compactness scores?
16 A. Like I said, I mean, I just sort of vaguely
17 recall looking at it, so I'd have to go and actually
18 look and then re-read it and look at the formula.
19 Q. You don't know it as you sit here today?
20 A. I couldn't recite it back to you.
21 Q. Have you ever double checked Dave's
22 Redistricting compactness results with some other
23 source or some other tools for measuring compactness?
24 A. There's other cases I've been in where I have
25 used it and someone else has used something else, and

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1 the results were very comparable. So it was a little
2 surprising to me that there might have been some slight
3 variance between here and Maptitude. So, I mean, I
4 had -- I had had external -- like, I haven't sat and,
5 like, you know, done the analysis prior -- you know,
6 here's this and here's, like, using, say, R and then
7 Maptitude and then Dave's and maybe another venue. I
8 hadn't done that.
9 Q. Have you ever attempted to compare the voting
10 age population data from Dave's to some other source to
11 verify the --
12 A. Yeah. Yeah, I've done that. I've done that
13 with -- I've looked at, I think, their VTD production
14 and then -- in some state, I can't remember where --
15 and compared it against the VTD production in, like,
16 just the regular redistricting file that you get off
17 the census, and it was the same.
18 Q. Did you do that in this case?
19 A. No, I don't think so.
20 Q. When you calculated compactness scores in this
21 case, did you use any method other than Dave's
22 Redistricting? Or any tool, I should say, instead
23 of --
24 A. Well, like, with Maptitude with -- I think with
25 the rebuttal, the reference is there from that or from

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1 using just to line it up with what Dr. Hood did.
2 Q. Are you saying that Dr. Hood used Maptitude?
3 A. Oh, that was my -- maybe he didn't. But I
4 thought that's what he did, yeah.
5 Q. So -- but your only references to Maptitude
6 data would be reciting what Dr. Hood found if he used
7 Maptitude, which my understanding is he did.
8 A. No, like the sort of any unique analyses I did
9 in the rebuttal report, revolving maps and things like
10 this, would have incorporated -- well, not all of them,
11 but, you know, the compactness and things like that
12 would have incorporated the analysis or the output from
13 Maptitude, because, you know, given that Dr. Hood kind
14 of arrived at a different conclusion on a few of the
15 minor points on compactness, I wanted to just use what
16 he had used so that we at least had an even comparison.
17 Q. Just to make sure I'm clear then, when you say
18 -- when you're talking about reliance on Maptitude,
19 you're talking about reliance on Dr. Hood's findings.
20 You didn't independently use Maptitude in calculating
21 compactness, correct?
22 A. No, no, no. No. The reports that I had
23 generated -- let me see -- in, like, you know, in Texas
24 and stuff, that would have been coming out of
25 Maptitude. And then the -- well, just a discussion, I

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1 don't know if this is -- I think in the Plaintiffs'
2 Demonstrative Plan 1, LD-9, that discussion, I don't
3 know if I have -- yeah, that -- those are coming out of
4 Maptitude.
5 Q. You talked about the Texas matters coming out
6 of Maptitude, and then what were you just referencing,
7 the --
8 A. I don't know, the Plaintiffs' Demonstrative
9 Plan 1, LD-9, page 10 of the rebuttal report.
10 Q. Hold on one second. Let me go to page 10 of
11 the rebuttal report.
12 A. So, you know, talking about LD-35 and LD-46
13 have Reock scores that are .01 and .02 higher than
14 Plaintiffs' districts, that's coming out of Maptitude.
15 Q. And how did you get that information from
16 Maptitude? Were you running the Maptitude program, or
17 was that information provided to you by somebody else?
18 A. That was provided by plaintiffs. So we did a
19 variety of analyses, I wanted to look at these, you
20 know, different things and comparisons and said give me
21 those Reock scores, that type of thing.
22 Q. For LD-35 and LD-46 and 34, I believe, right?
23 A. That's right.
24 Q. Did you use any Maptitude data relating to
25 compactness in District 9 or 15?

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1 A. I think the initial -- I think not.
2 Q. We talked before -- or you had testified before
3 about what a Reock score is, and I won't repeat all of
4 it today. It involved the drawing of the smallest
5 possible circle around the district, right?
6 A. Yeah.
7 Q. Do you know if Dave's Redistricting does that,
8 if its algorithm involves drawing a circle around the
9 district?
10 A. Yeah, that's my -- that's my understanding.
11 One way that it could be different is that Maptitude is
12 really finicky, and I've had it, like, totally backfire
13 on me in certain situations in other context. And so,
14 like, it reads in a shapefile and it kind of misplaces
15 where the boundary was or very small things you can't
16 really see that might effect some internal rankings.
17 And so if there's a discrepancy between the two, it's
18 just as likely that that discrepancy is actually coming
19 from Maptitude. It's, to be honest with you, one of
20 the worst possible programs anyone has ever invented.
21 It's so hard to use. And I think they do that by
22 design so that once you spend thousands of hours
23 learning how to do something basic, you, like, have
24 committed so much time to it that you have to keep
25 using it.

1 Q. Aside from ease-of-use concerns, are you saying
2 that the calculations performed by Maptitude are not
3 reliable?
4 A. When everything is just right and all the data
5 read in and all that is done correctly, then it's, you
6 know, very reliable. It's just that in my experience
7 dealing with the program in other contexts -- not here,
8 but in other contexts, I have generated numbers that
9 were certainly -- I could tell were not right. And so
10 that made me sort of a little bit -- after that, I
11 started trying to use Dave's more. It's just a lot
12 easier to use.
13 Q. Are you aware of any federal court cases where
14 Maptitude or work product generated in Maptitude was
15 excluded by the court?
16 A. No, no, I'm not. I'm -- my -- my -- my
17 complaint here is mostly editorial. It's on, like,
18 user ease. It's not on the actual technical capacity
19 of Maptitude. It is a good program in that regards.
20 It's just I don't know why you'd develop a program
21 that's so hard to use, other than you're doing it
22 because of what I, you know, stated.
23 Q. Are you aware of any federal court cases where
24 the court has excluded product generated by Dave's
25 Redistricting?

1 A. No.
2 Q. Just give me just a moment. I think we may be
3 done. Go off the record for just a few minutes here.
4 (A break was taken at 4:33 p.m.)
5 MR. PHILLIPS: That's all the questions
6 that I have for you right now, Dr. Collingwood. I'm
7 not sure if --
8 COURT REPORTER: I'm sorry, I can't hear
9 with the shuffling of papers again.
10 MS. DANAHY: Dr. Collingwood, can you --
11 THE WITNESS: I'm sorry. I was closing
12 the bag. I was starving, I just had to eat them.
13 MR. PHILLIPS: I was just saying that I
14 don't have any questions right now. I was asking if
15 plaintiffs' counsel had follow-up questions for you.
16 MS. DANAHY: I have a few questions, but
17 it should be quick, so hopefully we'll get on the way
18 soon.
19 THE WITNESS: All right. Thank you.
20
21 EXAMINATION
22 BY MS. DANAHY:
23 Q. Dr. Collingwood, you --
24 MS. DANAHY: David, do you mind taking
25 down the exhibit, if you can?

1 MR. PHILLIPS: Oh, yes, I'm sorry. I
2 always . . .
3 MS. DANAHY: Thank you.
4 BY MS. DANAHY:
5 Q. Dr. Collingwood, you were asked earlier about
6 your opinion that for a Gingles III analysis it makes
7 sense to exclude the packed 9A district but include
8 cracked District 15 results. Do you recall that part
9 of the conversation?
10 A. Yes.
11 Q. Okay. I'm going to focus in a little bit on
12 the concept of packing. Is packing determined solely
13 by demographic percentage of a district, or are there
14 other considerations?
15 A. I think a lot of kind of the way that it's
16 taught either in the literature, like in some of the
17 redistricting books I've used to teach, or Voting
18 Rights Act classes I've taught, it does focus -- it
19 tends to focus on demographics, so, like, just look at
20 a district that's 80 percent minority, like, that's
21 packed. But for me, I tend to also incorporate whether
22 that district or the broader region is producing
23 outcomes that are -- that the minority community
24 basically are better able to elect candidates of
25 choice. So I think you need to have both of those

1 things, because sometimes in a certain area, like a 70
2 percent district might be packed, you know, and that
3 kind of very negative sense, and another area 70
4 percent may be -- you know, if we're strictly only, you
5 know, focused on numbers, might be required because of
6 different voter turnout instances. So in those cases,
7 while you would say they're both, quote, packed, one
8 might be required to produce an outcome that's
9 favorable for the minority population whereas another
10 one might actually be vote dilutions. It's kind of
11 context dependent.
12 Q. Can a district have a higher minority
13 percentage but not be packed?
14 A. Yeah, yeah, for sure.
15 Q. Is that because it -- there may be reasons why
16 it's not possible to draw a district with a lower
17 minority percentage?
18 A. Yeah, there's a couple examples that I -- often
19 come to mind in places that I've either worked or
20 looked into, and one is, say, Little Havana. It's
21 almost impossible to draw districts down there that are
22 not 80 percent Hispanics unless you draw these very
23 narrow connecters that probably wouldn't, you know,
24 kind of suffice. And so while they're, again,
25 technically packed, there's not a lot you can do about

1 that. And same thing with, like, areas of New Mexico,
2 you know, where I live, there's regions of the state
3 that -- like in McKinley and San Juan County that's
4 over on the border of Arizona, those -- some of those
5 districts are, like, 80 percent Native American. And
6 while they're packed in this great numeric sense,
7 there's just -- there's no other population of where to
8 go to, quote, unpack it or do something different.
9 Q. With respect to District 9A, you report that
10 its Native VAP is 79.8 percent on page 5 of your
11 rebuttal report.
12 MS. DANAHY: And I don't know if I have
13 sharing permission, but maybe we can pull that up.
14 MR. PHILLIPS: I can pull that up. You
15 said page 5?
16 MS. DANAHY: Page 5, yeah.
17 MR. PHILLIPS: Am I in the right place?
18 MS. DANAHY: Yes.
19 BY MS. DANAHY:
20 Q. I think it's down in the fourth paragraph.
21 A. Yeah.
22 Q. It says, "Meanwhile, subdistrict 9A has the
23 fifth highest NVAP percentage in the nation."
24 A. Yeah.
25 Q. So is that unusually high compared to other

1 Native American majority districts?
2 A. That's definitely on the higher end, yeah. I
3 think there's a couple others, but I think the mean
4 was, like, yeah, 66, around there. So, yeah, it's --
5 you know, that's very high.
6 Q. And you talked about earlier, like, reasons why
7 it might not be possible to draw a district with a
8 lower minority percentage, you talked about districts
9 in New Mexico, for example, that are on the border and
10 there's no -- that means there's no place to go in
11 order to pick up additional population; is that right?
12 A. That's right.
13 Q. Would, like, a water boundary be another
14 example where you're not able to go past a certain
15 place to pick up?
16 A. Yeah, definitely. Like, places in Alaska and
17 stuff like that.
18 Q. Is District 9A completely bounded by state or
19 country border or body of water or any other kind of
20 geographical limit on where you can pick up population?
21 A. Not -- not that I can recall. I think maybe a
22 portion of it goes up to the Canadian border, but just
23 a very small portion. I don't think anyone really
24 lives up there.
25 Q. Um --

1 A. Different context.
2 Q. So is District 9A the type of district where
3 it's just not possible to draw a configuration with a
4 lower Native VAP because of sort of these other factors
5 that we've been discussing?
6 A. No, you can definitely draw a lower population
7 NVAP in 9A if you wanted to.
8 Q. So in that sense, does determining whether
9 District 9A is packed depend on whether an alternative
10 type of district could be drawn that would increase the
11 number of legislators that needed --
12 A. Yeah, I think -- yeah, that -- that certainly
13 makes a lot of sense.
14 Q. And do plaintiffs' demonstrative districts
15 illustrate such an alternative configuration?
16 A. I've testified that they do.
17 Q. And how does that -- how does that work?
18 A. Basically by incorporating land to the south
19 and bringing in the Spirit -- Spirit Lake reservation,
20 it effectively increases folks living in 9A, but also
21 9B, representation not only at the State House level,
22 but also the State Senate level --
23 Q. And --
24 A. -- to much more greater degree.
25 Q. And the folks currently in 15 as well that

1 would be in --
2 A. Of course. Yes, of course. Who are
3 currently -- who are currently -- their candidates of
4 choice, as I demonstrated, just never, never win.
5 Q. So in that sense, where you can pick up
6 additional population from surrounding areas, that
7 would change the demographics of 9A and increase
8 electoral opportunity, is that -- in that sense, could
9 you fairly characterize District 9A as packed?
10 A. Yes.
11 Q. I think you were asked earlier whether Gingles
12 III was present in District 9A. Do you recall that?
13 A. Yes.
14 Q. And did you understand that to mean just with
15 respect to the State House elections in District 9A?
16 A. I did, yeah.
17 Q. And with respect to the State Senate, Gingles
18 III is present for Native voters in District 9A; is
19 that your opinion?
20 A. Yeah, because they're not -- they're not able
21 to elect candidates of choice in especially endogenous
22 and most recent elections.
23 Q. And is that why you emphasized the importance
24 of having a regional analysis?
25 A. That -- that's correct.

Q. Did you -- did you hear me?
A. Oh, I said, "that's correct."
Q. Sorry, I must have missed your answer.
A. Oh, did I phase out? Maybe she phased out. I don't know. Is it me or her?
COURT REPORTER: It looks like maybe she's frozen.
MR. PHILLIPS: She looks frozen.
(Discussion held off the record.)
BY MR. PHILLIPS:
Q. So the question I was asking is if you look at District 4, is there any way to draw a district in that region that would allow Native American voters the opportunity to elect a second House Rep or a State Senator?
A. Right, so that's the key difference is that there's just not that many other Native American areas there. So while, you know, kind of cursorily looking at just 4 and 9, one could maybe draw the conclusion that they're analogous, but the broader picture is such that 4 you can't expand at all whereas 9 you can. So that changes the dynamics of a VRA claim.
Q. So Native American voters in the Fort Berthold area are differently situated than Native American voters in the northeastern North Dakota?

A. Right. And that's why a lot of this analysis is very contextual.
Q. And part of that is that the Native American population in northeast North Dakota is sufficiently large to elect candidate of choice in two State House seats and a State Senate seat?
A. That's right.
Q. Is that your opinion?
A. Yeah, that's right.
Q. And then you were also asked whether you conducted a Gingles III analysis in District 4A. Do you recall that?
A. Yes.
Q. And is the purpose there to show that Gingles III exists in District 4 as a whole and then to ascertain whether District 4A is overcoming white bloc voting to allow the election of a Native-preferred State Representative?
A. Yes.
MS. DANAHY: Can we take just a quick, like, two-minute break?
MR. PHILLIPS: Yes.
MS. DANAHY: Hopefully we should be able to wrap up.
(A break was taken at 4:44 p.m.)

BY MS. DANAHY:
Q. Dr. Collingwood, earlier you testified about which cases you worked with Campaign Legal Center on, and I think you may have omitted one. You worked with CLC on the Soto Palmer case; is that right?
A. Yes.
Q. Okay. I just wanted to clarify that for the record.
A. Thank you.
MS. DANAHY: I don't have anything further.
MR. PHILLIPS: I just have a couple or maybe one follow up.

EXAMINATION
BY MR. PHILLIPS:
Q. I believe you just testified that the big difference between 4 and 9 is that there is another Native American population nearby 9 that could be brought into the district to increase the voting age population in 9; is that fair?
A. Yes.
Q. Does the Voting Rights Act require that a state maximize the number of candidates who are Native American preferred?

MS. DANAHY: Objection; that calls for a legal conclusion.
THE WITNESS: Right. Yeah. I think no.
BY MR. PHILLIPS:
Q. If there's a nearby population of additional minorities, the state isn't always required to bring that into the district to bump up the numbers, correct?
MS. DANAHY: Objection; calls for a legal conclusion.
THE WITNESS: Well, I think I've demonstrated that there are ways when you look at the Gingles test to show how what the state did is clearly diluting the Native American vote opportunity structure. When it comes down to what is and isn't required through the VRA, I mean, there's a lot of case law around the VRA, so different courts make different decisions. So I'll leave it to the courts to make that call.
MR. PHILLIPS: I won't drag this out anymore.
I suppose he'll read and sign?
MS. DANAHY: Yeah, we'll read and sign.

(The deposition was concluded at 4:48 p.m. CST)

REPORTER'S CERTIFICATE

STATE OF MINNESOTA)
) ss.
COUNTY OF CLAY)

I hereby certify that I reported the remote deposition of Loren Collingwood on Monday, March 6, 2023, and that the witness was by me first duly sworn to tell the whole truth;

That the testimony was transcribed by me and is a true record of the testimony of the witness;

That the cost of the original has been charged to the party who noticed the deposition, and that all parties who ordered copies have been charged at the same rate for such copies;

That I am not a relative or employee or attorney or counsel of any of the parties, or a relative or employee of such attorney or counsel;

That I am not financially interested in the action and have no contract with the parties, attorneys, or persons with an interest in the action that affects or has a substantial tendency to affect my impartiality;

That the right to read and sign the deposition by the witness was preserved.

WITNESS MY HAND AND SEAL THIS 13th day of March, 2023.

Christa R. Reeser, RPR, CRR, CRC
Notary Public, Clay County, Minnesota
My commission expires January 31, 2027

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1100 Superior Ave
Suite 1820
Cleveland, Ohio 44114
Phone: 216-523-1313

March 13, 2023

To: Molly E. Danahy, Esq.

Case Name: Turtle Mountain Band Of Chippewa Indians, et al. v. Howe, Michael, etc.
Veritext Reference Number: 5780636
Witness: Loren Collingwood Deposition Date: 3/6/2023

Dear Sir/Madam:

Enclosed please find a deposition transcript. Please have the witness review the transcript and note any changes or corrections on the included errata sheet, indicating the page, line number, change, and the reason for the change. Have the witness' signature notarized and forward the completed page(s) back to us at the Production address shown

above, or email to production-midwest@veritext.com.

If the errata is not returned within thirty days of your receipt of this letter, the reading and signing will be deemed waived.

Sincerely,

Production Department

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DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 5780636
CASE NAME: Turtle Mountain Band Of Chippewa Indians, et al. v. Howe, Michael, etc.
DATE OF DEPOSITION: 3/6/2023
WITNESS' NAME: Loren Collingwood

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have made no changes to the testimony as transcribed by the court reporter.

_____ _____
Date Loren Collingwood

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;
They signed the foregoing Sworn Statement; and
Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal

this _____ day of_____, 20____.

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Notary Public

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Commission Expiration Date

DEPOSITION REVIEW
CERTIFICATION OF WITNESS

ASSIGNMENT REFERENCE NO: 5780636
CASE NAME: Turtle Mountain Band Of Chippewa Indians, et al. v. Howe, Michael, etc.
DATE OF DEPOSITION: 3/6/2023
WITNESS' NAME: Loren Collingwood

In accordance with the Rules of Civil Procedure, I have read the entire transcript of my testimony or it has been read to me.

I have listed my changes on the attached Errata Sheet, listing page and line numbers as well as the reason(s) for the change(s).

I request that these changes be entered as part of the record of my testimony.

I have executed the Errata Sheet, as well as this Certificate, and request and authorize that both be appended to the transcript of my testimony and be incorporated therein.

_____ _____
Date Loren Collingwood

Sworn to and subscribed before me, a Notary Public in and for the State and County, the referenced witness did personally appear and acknowledge that:

They have read the transcript;
They have listed all of their corrections in the appended Errata Sheet;
They signed the foregoing Sworn Statement; and
Their execution of this Statement is of their free act and deed.

I have affixed my name and official seal

this _____ day of_____, 20____.

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Notary Public

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Commission Expiration Date

1 ERRATA SHEET
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