

Exhibit 610

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE EASTERN DISTRICT OF NORTH CAROLINA
3

4 IN RE:)
5)
6 CAMP LEJEUNE WATER LITIGATION) Case No.
7) 7:23-cv-00897
8)
9 This Document Relates to:)
10 ALL CASES)
11

12
13 This is the Videotaped Examination of
14 RICHARD BARBANO, MD
15 taken on Monday, June 30, 2025, held at
16 Fitzsimmons, Nunn and Plukas, LLP, 957
17 Panorama Trail South, Suite 100,
18 Rochester, New York, commencing at
19 9:08 a.m., concluding at 5:50 p.m.,
20 taken before Tonia L. Tinker, Court
21 Reporter and Notary Public in and for
22 the State of New York.
23
24
25

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1 FEDERAL STIPULATIONS:

2
3 IT IS HEREBY STIPULATED AND AGREED by and
4 between the attorneys for the respective parties
5 hereto that this deposition may be taken by Counsel
6 for Defendants at this time;

7 IT IS FURTHER STIPULATED, that all objections
8 except as to the form of the questions and
9 responsiveness of the answers be reserved until the
10 time of the trial;

11 IT IS FURTHER STIPULATED, that pursuant to
12 Federal Rules of Civil Procedure 30(3)(1) the
13 witness requests to review the transcript and make
14 any corrections to same before any Notary Public;

15 IT IS FURTHER STIPULATED, that if the original
16 deposition has not been duly signed by the witness
17 and returned to the attorney taking the deposition
18 by the time of trial or any hearing in this cause, a
19 certified transcript of the deposition may be used
20 as though it were the original;

21 IT IS FURTHER STIPULATED, that the attorneys
22 for the parties are individually responsible for
23 their certified transcript charges, including any
24 expedite or other related production charges.
25

1 VIDEOGRAPHER: Good morning. We
2 are going on the record at 9:08 a.m. on
3 Monday, June 30, 2025. Please note that
4 the microphones are sensitive and may
5 pick up whispering, private
6 conversations, and cellular
7 interference. Please turn off all cell
8 phones or place them away from the
9 microphones as they can interfere with
10 the deposition audio. Audio and video
11 recording will continue to take place
12 until all parties agree to go off the
13 record.

14 This is media unit 1 in the
15 video-recorded deposition of Dr. Richard
16 Barbano taken by counsel for defendant
17 in the matter of Camp Lejeune Water
18 Litigation versus the United States of
19 America. Case Number 7:23-cv-897.

20 This deposition is being held at
21 Fitzsimmons, Nunn and Plukas, located at
22 957 Panorama Trail South, Suite 100,
23 Rochester, New York.

24 My name is David Freedman from the
25 firm Veritext. I'm the videographer.

1 The court reporter is Tonia Tinker from
2 the firm Veritext.

3 I'm not authorized to administer an
4 oath, I'm not related to any party in
5 this action, nor am I financially
6 interested in the outcome.

7 Counsel and all parties present in
8 the room and everyone attending remotely
9 will now state their appearances and
10 affiliations for the record. If there
11 are any objections to proceeding, please
12 state them at the time of your
13 appearance, beginning with the noticing
14 attorney.

15 MS. PLATT: Elizabeth Platt, for
16 the United States.

17 MS. MIRSKY: Sara Mirsky, for the
18 United States.

19 MR. BARR: Brian Barr, on behalf of
20 plaintiffs.

21 MR. MICELI: David Miceli, on
22 behalf of plaintiffs.

23 MS. PLATT: Jessica Ans, with the
24 United States.

25 MR. BARR: And Pat Telan with Bell

1 Legal is also on Zoom.

2 VIDEOGRAPHER: Would the court
3 reporter please swear in the witness?
4

5 R I C H A R D B A R B A N O, M D,
6 having been first duly sworn by a Notary
7 Public within and for the State of New York,
8 was examined and testified as follows:

9 EXAMINATION

10 BY MS. PLATT:

11 Q. Good morning, Dr. Barbano.

12 A. Good morning.

13 Q. Thank you for being here today.

14 A. You're welcome.

15 Q. I know I introduced myself earlier, but,
16 again, I'm Elizabeth Platt, I'm on behalf of the
17 United States in this matter.

18 Would you please state your full name for
19 the record?

20 A. Richard L. Barbano, MD, PhD.

21 Q. And what is your current business address?

22 A. Stumped me right off the start. I guess I
23 would use my -- I guess I would use my home address.

24 Q. Okay.

25 A. 370 Westminster Road, Rochester, New York

1 14607.

2 Q. Thank you. And as I said, I represent the
3 United States. This is a court proceeding. Even
4 though you are not in a courtroom, you are under
5 oath.

6 Do you understand that you are obligated to
7 tell the truth?

8 A. Yes, I do.

9 Q. We have a court reporter today who is
10 taking everything down for the record, so it's very
11 important that you answer verbally rather than
12 shaking your head to ensure that she gets your
13 answer correct.

14 A. I understand.

15 Q. Please talk at a reasonable pace. I will
16 try to do the same so that the court reporter can
17 get everything for the record, and I will try not to
18 interrupt you. And I ask that you also try not to
19 interrupt me, just so that we have the entire
20 question and the entire answer on the record.

21 A. I understand.

22 Q. Once you -- sorry.

23 If I ask a question that you do not
24 understand, please let me know, and I will attempt
25 to clarify so that you can understand the question.

1 If you answer the question as I pose it, I will
2 assume that you understood the question. Is that
3 fair?

4 A. Agreed.

5 Q. During the deposition, you may see -- you
6 may hear your attorney say, "Objection." Unless he
7 instructs you not to answer, you can proceed with
8 answering the question.

9 Is there any reason why you are unable to
10 tell truthful and accurate testimony today?

11 A. No.

12 Q. Is there any reason your memory might be
13 impaired today?

14 A. No.

15 Q. Are you currently taking any medication
16 that might impair you?

17 A. No.

18 Q. You may ask for breaks at any time. If
19 there's a question pending, I ask that you answer
20 the question, and then we can take a break.

21 A. Thank you.

22 Q. Is that okay?

23 A. Yes.

24 Q. Before we get started, I wanted to go over
25 some common abbreviations that I'm going to be using

1 today in the deposition, just so that we're on the
2 same page.

3 So the first one, for trichloroethylene, I
4 will likely be saying TCE.

5 A. Understood.

6 Q. For tetrachloroethylene, I will say either
7 PCE or perch.

8 A. Agree.

9 Q. And for Parkinson's disease, I may from
10 time to time refer to it as PD.

11 A. Agree.

12 Q. Thank you. I'm going to go ahead and mark
13 Exhibit 1 for the record. I'm going to hand you
14 Exhibit 1. Do you recognize this document as the
15 subpoena for your deposition today?

16 (Exhibit Number 1 was marked for
17 identification.)

18 A. Yes.

19 BY MS. PLATT:

20 Q. If you turn the page past the subpoena, you
21 will see where it starts Page 1, it's titled,
22 "Attachment A."

23 A. Yes.

24 Q. Have you reviewed this request for
25 production of documents?

1 A. Yes.

2 Q. And I believe you produced some documents
3 already prior to the deposition. We received
4 invoices; is that correct?

5 A. I believe so, yes.

6 Q. And we also received a retention letter,
7 correct?

8 A. Correct.

9 Q. A PowerPoint, correct?

10 A. Yes.

11 Q. And some notes?

12 A. Correct.

13 MS. PLATT: We are clarifying an
14 issue with the CV, which has not yet
15 been reproduced, but I assume counsel
16 will take care of that.

17 MR. BARR: Well, if you want to
18 show him the CV that was attached to the
19 report, you can ask him if there's any
20 addition to it.

21 MS. PLATT: Okay. We can do that
22 for today. But I think you're planning
23 to reproduce the new one, correct?

24 MR. BARR: To the extent there's
25 new information, yes. What I'm saying

1 is I don't think that there's new
2 information, so the one that got
3 produced, I don't know why it had the
4 red lines and stuff on it. That's not
5 the one I saw.

6 MS. PLATT: Okay.

7 MR. BARR: But if you just want to
8 ask him if he's had updates. If there
9 are updates, I'm happy to produce it.

10 MS. PLATT: Okay. We can talk
11 about this on a break.

12 MR. BARR: Yeah.

13 BY MS. PLATT:

14 Q. Do you have any other responsive materials
15 to produce that you have not produced?

16 A. No.

17 Q. Are you withholding any materials that
18 would be responsive?

19 A. No.

20 MR. BARR: Object to form.

21 THE WITNESS: Sorry.

22 MR. BARR: No, you're good.

23 BY MS. PLATT:

24 Q. I just want to quickly go over the
25 subpoena. With request number 1, do you have any

1 emails, letters, correspondence, text messages,
2 conversations, chats, voicemails, data, technical
3 files, or other communications pertaining to the
4 topics listed in that request?

5 MR. BARR: Object to form.

6 A. No. May I read that for a second? It's
7 been a while since I have looked at it. I'm sorry.

8 Q. Of course. Take your time.

9 A. And I assume you are talking about other
10 than stuff used during the preparation for this
11 case? In other words, any email that ever mentioned
12 Parkinson's disease, I'm sure I have many. I assume
13 you are talking about in relation to this case.

14 Q. Not within just relation to this case. If
15 you have any communications with counsel related to
16 this case, those are, obviously, privileged.

17 A. Okay.

18 Q. We are not requesting those.

19 A. Okay.

20 Q. But if you have, in your expert capacity or
21 in your professional capacity as a doctor,
22 communications related to Parkinson's disease that
23 would be responsive, that is what we are requesting.

24 MR. BARR: And that's where the
25 objection lies, given how broad and

1 vague that request is.

2 MS. PLATT: And I believe you
3 responded.

4 MR. BARR: Yes.

5 MS. PLATT: Yes.

6 BY MS. PLATT:

7 Q. Is there anything that you are withholding?

8 MR. BARR: Object to form. We
9 responded in our objections, I'm not
10 going to let him answer that. We
11 responded. You have our response to the
12 objections.

13 MS. PLATT: I understand, but I
14 also, in this deposition, get to ask --

15 MR. BARR: Okay. But the response
16 was no responsive documents. That's
17 what it says in the response.

18 MS. PLATT: And that is -- if that
19 is accurate, then he, under oath, can
20 say that as well.

21 BY MS. PLATT:

22 Q. So, Dr. Barbano, are you withholding
23 anything?

24 A. I'm not withholding anything. I have been
25 studying Parkinson's for 30-plus years. So if the

1 question is are there emails in my 30-plus years
2 that have mentioned the word "idiopathic
3 Parkinson's" or "Parkinson's," I would say, yes,
4 there probably are.

5 I don't -- I couldn't give you a number,
6 but I couldn't, under oath, say I don't have
7 anything in my email that ever says anything about
8 Parkinson's. In relation to this case, no, the
9 answer is no.

10 MS. PLATT: Okay. And for the
11 record, we have requested, both under
12 request number 1 and request number 2,
13 the communications related to these
14 topics. I understand counsel's
15 objections, we received those. But I
16 would, again, request that anything
17 responsive be produced.

18 MR. BARR: Okay. And we have
19 objected. You have that objection.

20 BY MS. PLATT:

21 Q. Flipping through to request number 3, are
22 you withholding anything under that request?

23 MR. BARR: Object to form.

24 A. No.

25 MR. BARR: And I believe you have

1 gotten responsive documents to that
2 request.

3 MS. PLATT: We did. Thank you.

4 BY MS. PLATT:

5 Q. And then, if you want to read through 4
6 through 9, are you withholding anything under those?

7 MR. BARR: Object to form.

8 A. No.

9 Q. And 9 is on the next page. Anything you
10 are withholding under request number 9?

11 MR. BARR: Object to form.

12 A. No.

13 Q. Thank you. You can set that aside.

14 Dr. Barbano, you prepared two reports in
15 this litigation, correct?

16 A. Correct.

17 Q. One for Mr. Peterson?

18 A. Correct.

19 Q. And one for Mr. McElhiney, correct?

20 A. Correct.

21 Q. Did you prepare any other reports in this
22 litigation?

23 A. No.

24 Q. Did anyone assist you in writing these
25 reports?

1 A. No.

2 MR. BARR: Object to form.

3 Q. Do you have any support staff working with
4 you on this matter?

5 A. No.

6 Q. I'm going to go ahead and enter Exhibit
7 Number 2. Here you go, Dr. Barbano.

8 (Exhibit Number 2 was marked for
9 identification.)

10 A. Thank you.

11 BY MS. PLATT:

12 Q. And that is a copy of your expert report on
13 Mr. Peterson, correct?

14 A. Correct.

15 Q. And is this a complete copy of your report?

16 MR. BARR: If you want to flip
17 through it, go ahead.

18 A. It appears to be complete.

19 Q. And if you turn to Page 24, is that your
20 signature on Page 24?

21 A. Yes.

22 Q. Does this report contain all the opinions
23 you have formed to date in this case regarding
24 Mr. Peterson?

25 A. Yes.

1 Q. Are you planning to form any additional
2 opinions regarding Mr. Peterson?

3 A. I think that would depend on whether
4 there's new information, but currently, I'm not
5 planning on it. But should new information come, I
6 would say that I would reconsider anything.

7 Q. Okay. But barring new information, you do
8 not plan to form any new opinions, correct?

9 A. That's correct.

10 Q. You can set that aside, but we are going to
11 use that throughout the deposition, so keep it
12 handy.

13 I'm going to enter Exhibit Number 3. I
14 just handed you Exhibit Number 3. This is your
15 expert report on Mr. McElhiney, correct?

16 (Exhibit Number 3 was marked for
17 identification.)

18 A. Correct.

19 BY MS. PLATT:

20 Q. Is this a complete copy of your report?

21 A. It appears so, yes.

22 Q. If you turn to the page, is that your
23 signature?

24 A. Yes.

25 Q. Does this report contain all of opinions

1 you have formed to date in this case regarding
2 Mr. McElhiney?

3 A. Yes.

4 Q. Are you planning to form any additional
5 opinions regarding Mr. McElhiney?

6 A. Barring any new information, no.

7 Q. And just for the record, I would like to
8 clarify. Mr. Peterson is a plaintiff in this
9 matter, correct?

10 A. That's my understanding.

11 Q. And Mr. McElhiney is a plaintiff in this
12 matter, correct?

13 A. Correct.

14 Q. If you want to keep a hold of Exhibit
15 Number 3, Mr. McElhiney's report -- or your report
16 on Mr. McElhiney, your CV is attached to both
17 reports, correct?

18 A. Let me just double-check. Yes, it is. On
19 this one, yes, correct.

20 Q. And is this document a complete
21 representation of your educational and professional
22 background?

23 A. Yes.

24 Q. Is there any new information that is not
25 included in this version of your CV?

1 A. Let me check the date. Yes.

2 Q. There is new information?

3 A. Yes, I have published -- I update my CV
4 about every six months and have updated it at the
5 beginning of June.

6 MS. PLATT: Okay. So we would
7 request that June version of the CV.

8 MR. BARR: Not a problem. I will
9 get that to you as soon as humanly
10 possible.

11 MS. PLATT: Thank you.

12 BY MS. PLATT:

13 Q. And what have you published that is not
14 included on this CV that you are currently looking
15 at?

16 A. Two upcoming -- one article on dystonia and
17 two posters that were presented at the American
18 Academy of Neurology in April, and two that were
19 accepted for the movement disorder society in
20 November is the best I can recall at this point as
21 to what was added.

22 Q. And the two for the Movement Society, are
23 those posters?

24 A. They are posters, yes.

25 Q. Any other new information that's not

1 included?

2 A. No.

3 Q. Okay. You also submitted a materials list
4 considered with your report, correct?

5 A. Correct.

6 Q. So I want to enter that into the record.
7 So I handed you Exhibit Number 4.

8 (Exhibit Number 4 was marked for
9 identification.)

10 A. Yes.

11 BY MS. PLATT:

12 Q. And that is your materials considered list
13 for your expert reports on Mr. Edgar Peterson and
14 Mr. Gary McElhiney, correct?

15 MR. BARR: Object to form.

16 A. Yes.

17 MR. BARR: I believe there's an
18 update.

19 MS. PLATT: Yes.

20 MR. BARR: That was the basis of
21 the objection.

22 MS. PLATT: Okay. Those are coming
23 right next.

24 MR. BARR: Okay.

25 BY MS. PLATT:

1 Q. So --

2 A. The only issue with this is that there's a
3 bit of a mixture with my name and Schwarz's name.

4 Q. Yes. And on what page is that?

5 A. It appears on the second-to-last line on
6 Page 1 as well as Page 5, first new paragraph.

7 MR. BARR: And, Counsel, I think I
8 see what he's talking about. It says,
9 "Considered by Schwarz."

10 MS. PLATT: Yes.

11 MR. BARR: I will confirm this, but
12 I'm fairly positive that's a typo.

13 MS. PLATT: Okay.

14 BY MS. PLATT:

15 Q. Dr. Schwarz is another expert in this
16 litigation, correct?

17 A. Correct.

18 Q. Did Dr. Schwarz help you or assist you in
19 writing these reports?

20 A. No.

21 Q. And you supplemented this materials
22 considered list, correct?

23 A. Correct.

24 Q. I'm going to go ahead and enter that as the
25 next exhibit, Exhibit Number 5. I just handed you

1 Exhibit Number 5, that is your first supplement to
2 the materials considered list, correct?

3 (Exhibit Number 5 was marked for
4 identification.)

5 A. Correct.

6 BY MS. PLATT:

7 Q. And then, you supplemented again, correct?

8 A. I believe so. I'm not sure whether there
9 was -- they were both combined with one or not. I'm
10 not positive.

11 Q. Okay. Taking a look at Exhibit Number 5,
12 your first supplement, did you draft this document?

13 A. No, I did not draft this.

14 Q. Did you review this document before it was
15 produced?

16 A. Yes.

17 Q. Do you know who drafted the document?

18 A. I don't, no.

19 Q. Was it provided to you by counsel?

20 A. Yes.

21 Q. Okay. I'm going to go ahead and enter the
22 next exhibit, which is Exhibit Number 6. I'm
23 handing you Exhibit Number 6, and that is your
24 second supplement to the materials considered list,
25 correct?

1 (Exhibit Number 6 was marked for
2 identification.)

3 A. Yes.

4 BY MS. PLATT:

5 Q. Did you draft this document?

6 A. No.

7 Q. Did counsel provide it to you?

8 A. Yes.

9 Q. Did you review it before it was produced?

10 A. Yes.

11 Q. And you supplemented again, correct?

12 A. Yes.

13 Q. I'm going to go ahead and mark Exhibit
14 Number 7, which is your third supplement to the
15 materials considered list. Did you draft this
16 document?

17 (Exhibit Number 7 was marked for
18 identification.)

19 A. No.

20 BY MS. PLATT:

21 Q. Did counsel provide it to you?

22 A. Yes.

23 Q. Did you review it before it was produced?

24 A. Yes.

25 Q. So in total, we have your original

1 materials considered list, you have a first
2 supplement, a second supplement, and a third
3 supplement materials considered list, correct?

4 A. Correct.

5 Q. Taking all of that in its entirety, is that
6 a complete list of all of the materials you
7 considered in writing your reports?

8 A. As far as I can see, yes.

9 Q. Is there anything missing to you?

10 A. No, I don't see anything missing.

11 Q. Okay. You have an MD, correct?

12 A. Yes.

13 Q. And it's from Albert Einstein College of
14 Medicine, correct?

15 A. Correct.

16 Q. And you have a PhD from Northwestern
17 University Feinberg School of Medicine, correct?

18 A. Correct.

19 Q. And what is your PhD in?

20 A. Neuroscience.

21 Q. And you hold yourself out to be an expert
22 in Parkinson's disease, correct?

23 A. Yes.

24 Q. Just so that we have a clear record, please
25 wait until I finish the question. It also gives

1 your counsel an opportunity to object if he sees a
2 problem with my question.

3 A. Thank you. I appreciate the reminder.

4 MR. BARR: Yeah, just let her
5 finish, take a breath, and then answer.

6 THE WITNESS: Okay.

7 BY MS. PLATT:

8 Q. What is the basis of your expertise in
9 Parkinson's disease?

10 MR. BARR: Object to form.

11 A. 32 years of practice and being a member of
12 the movement disorders division at the University of
13 Rochester.

14 Q. You are not an epidemiologist, correct?

15 A. Correct.

16 Q. And you do not hold yourself out to be an
17 epidemiologist, correct?

18 A. Not as an expert epidemiologist, correct.

19 Q. You are not qualified to offer opinions on
20 epidemiology, correct?

21 MR. BARR: Object to form.

22 A. I wouldn't agree to that. I believe that
23 through my work, I actually need to know a lot about
24 epidemiology, so I would reserve the right to make
25 educated opinions about it, professional opinions.

1 Q. And you just testified that you would not
2 hold yourself out as an expert in epidemiology,
3 correct?

4 MR. BARR: Object to form.

5 A. Correct.

6 Q. Okay.

7 A. But the epidemiology is a considerable part
8 of neurology. It would be analogous to saying I'm
9 not a cardiologist, but if a person came in with a
10 stroke that was from their heart, I would be able to
11 give an opinion regarding their heart condition
12 causing a stroke. So if you asked if I was a
13 cardiologist, I would say no. But they are linked,
14 and they are important, and the knowledge base of
15 both is important.

16 Did that answer your question?

17 Q. What is the basis of your expertise in
18 epidemiology?

19 A. Professional study, you know, work
20 including research.

21 Q. Have you published in epidemiology?

22 A. No.

23 Q. So what research have you done in
24 epidemiology?

25 A. Well, I guess it depends a bit on how you

1 define that. I mean, if we do -- I have published
2 many papers, let's say, on the incidents of certain
3 disorders or even if you want -- or directly
4 relevant to this case, the issues with Parkinson's
5 disease. So that involves some epidemiology when one
6 publishes on incidents and prevalence of disorders.

7 Q. You do not have a certification or license
8 in epidemiology, correct?

9 A. Correct.

10 Q. Do you have any formal training as an
11 epidemiologist?

12 A. No.

13 Q. You have never been a principal
14 investigator for an epidemiological study, correct?

15 A. Correct.

16 Q. Have you taken any courses on epidemiology?

17 A. Yes.

18 Q. What have you taken?

19 A. American Academy of Neurology has the --
20 often in our annual meetings, they will have these
21 afternoon courses and there is one on, you know, the
22 study of epidemiology.

23 Q. And is that the extent of your courses on
24 epidemiology?

25 A. That would be the extent, yes.

1 Q. Okay. So you -- you didn't get, like, a
2 PhD or a master's in epidemiology, correct?

3 A. Correct.

4 Q. Have you conducted a literature review for
5 epidemiological studies and publications as part of
6 your clinical practice?

7 A. Yes.

8 Q. How did you conduct those?

9 A. Usually through PubMed.

10 Q. Any other sources?

11 A. Generally not.

12 Q. What search terms do you typically include
13 in a literature review?

14 MR. BARR: Object to form.

15 A. It would depend on what I was looking for.
16 So, you know, obviously the disease, obviously
17 population, incidents, exposure, but it would really
18 depend on what activity I was doing at the time.

19 Q. Do you include inclusion and exclusion
20 criteria?

21 A. Yes.

22 Q. And what would those typically be?

23 MR. BARR: Object to form.

24 A. Again, that would depend. If I were doing,
25 you know, an epidemiologic study on a particular

1 disorder, I might say I'm only looking at adults; so
2 automatically, there's an exclusion criteria of
3 people under the age of 18, or I may only be looking
4 at some other defined demographic. So those would
5 be inclusion and exclusion criteria.

6 Q. And do you make determinations as to what
7 is a high-quality study?

8 A. Yes.

9 Q. And how do you make that determination?

10 A. That's something that I actually have
11 professional experience in in my CV. You will see
12 that I was on the American Academy of Neurology
13 Guidelines Development Committee. And our job at
14 that time, and I spent several years doing this, is
15 to look -- when a question is answered, to look at
16 all of the studies addressing that question.

17 And what we would do is we would rank,
18 based on different protocols, high-quality,
19 low-quality studies and why. So I spent several
20 years doing that.

21 Q. Do you conduct an independent analysis of
22 the studies or publications you review in a
23 literature review?

24 MR. BARR: Object to form.

25 A. Can you repeat that? I'm sorry. I'm not

1 sure I understand.

2 Q. Do you conduct any independent analysis of
3 the studies or publications you review in a
4 literature review?

5 MR. BARR: Same objection.

6 A. Yes, if I'm understanding you. So let me
7 give you an example and see if that is what you are
8 getting at.

9 So in my work on the guideline committee,
10 we may look at an article that is an epidemiologic
11 study, for example, or a study and redo their
12 statistics to see whether that -- so independently
13 review the statistics, independently review the
14 inclusion/exclusion criteria to come to some
15 decision as to the strength of that study.

16 Is that what you are asking?

17 Q. Uh-huh.

18 A. Thank you.

19 Q. And when you are determining what is a
20 high-quality study, what is the criteria for that?

21 A. There's a number of them, there's not a
22 single one. Study size is important, inclusion,
23 appropriate inclusion and exclusion criteria are
24 important, study design is important. Those are
25 probably the top three. And, of course, the data

1 source is important that comes under study design,
2 so to speak.

3 Q. Have you conducted a literature review of
4 epidemiological studies and publications as part of
5 your expert work practice before?

6 A. Yes.

7 Q. Did you use the same process we just
8 discussed?

9 A. Yes. Let me clarify for a second. I did
10 not independently redo the statistics on any of the
11 studies I have reviewed.

12 Q. In what instance?

13 A. In the instance for this expert work.

14 Q. For your reports on Mr. Peterson and
15 Mr. McElhiney, correct?

16 A. Correct. I did not independently look at
17 the statistics, and I just wanted to clarify because
18 I had said in my job as guideline committee, that
19 would be something we would do.

20 Q. Thank you for clarifying.

21 For your reports on Mr. Peterson and
22 Mr. McElhiney, did you do any other form of
23 independent analysis of the epidemiological studies?

24 A. No.

25 Q. You are not a toxicologist, correct?

1 A. Correct.

2 Q. And you are not qualified to offer any
3 opinions on toxicology, correct?

4 MR. BARR: Object to form.

5 A. Again, I think that is a broad statement
6 that I couldn't totally agree to. As a neurologist,
7 it's very important to understand, specifically in
8 this case, the toxic manifestations of the chemicals
9 that we are talking about. And so I have an opinion
10 as to whether I think they are reasonably related to
11 the diseases that we're talking about.

12 Q. Do you hold yourself out to be an expert in
13 toxicology?

14 A. No.

15 Q. You do not have a certification in
16 toxicology, correct?

17 A. Correct.

18 Q. Do you have any formal training in
19 toxicology?

20 A. No.

21 Q. Have you ever been a principal investigator
22 for a toxicological study?

23 A. No.

24 Q. Have you ever published peer-reviewed
25 literature on toxicology?

1 A. No.

2 Q. Have you ever taught courses on toxicology?

3 A. No.

4 Q. You are not a risk assessor, correct?

5 A. Correct.

6 Q. And you do not hold yourself out to be a
7 risk assessment expert, correct?

8 A. Sort of the same qualifications in regards
9 to what I was saying about toxicology and
10 epidemiology. That statement is a little broad for
11 me to totally agree to. I would not consider myself
12 a risk assessment expert. I have not taken courses
13 in risk assessment, and I have never taught courses
14 in risk assessment.

15 But risk assessment is kind of why we are
16 here, and I do have an opinion. So I don't want to
17 say that my opinion is not formed by the literature,
18 and I do have an opinion about risk assessment. But
19 I would not hold myself out to be an expert.

20 Q. Did you form risk assessment opinions in
21 this litigation?

22 A. Not per se.

23 Q. Okay. So is it fair to say, when you're
24 looking at the risk assessment aspect, you're
25 looking at it from the perspective of a

1 neuroscientist, correct?

2 A. Neurologist, yes, correct.

3 Q. And is that fair to say about toxicology as
4 well?

5 A. Yes.

6 Q. And is that fair to say about
7 epidemiological studies, correct?

8 A. Yes.

9 Q. Have you conducted any human health
10 environmental risk assessments?

11 MR. BARR: Object to form.

12 A. I was involved in a study of TCE and
13 Parkinson's disease here in Rochester. That study
14 involved assessing people's risks, so to speak, of
15 developing Parkinson's based on exposures.

16 Q. And that is the study you published with
17 Dr. Dorsey; is that correct?

18 A. That's correct.

19 Q. I will ask you some questions about that.

20 A. I'm sure.

21 Q. But beyond that study, have you conducted
22 any human health environmental risk assessments?

23 A. No.

24 Q. Okay. Other than the study you just
25 mentioned with Dr. Dorsey, do you have any

1 publications on your experiments related to TCE and
2 Parkinson's disease?

3 A. No.

4 Q. Any published experiments on PCE and
5 Parkinson's disease?

6 A. No.

7 Q. Any publications on vinyl chloride?

8 A. No.

9 Q. Any publications on benzene?

10 A. No.

11 Q. Any publications on DCE?

12 A. No.

13 Q. Okay. I'm going to go ahead and enter
14 Exhibit Number 8.

15 (Exhibit Number 8 was marked for
16 identification.)

17 A. Thank you.

18 BY MS. PLATT:

19 Q. I have just handed you Exhibit Number 8.
20 This is the article you were just referring to,
21 correct?

22 A. Correct.

23 Q. And this article is titled, "Dry Cleaning
24 Chemicals and a Cluster of Parkinson's Disease and
25 Cancer, A Retrospective Investigation," correct?

1 A. Correct.

2 Q. And you are one of the co-authors on this
3 study, correct?

4 A. Correct.

5 Q. And it happens to be you are one of 12,
6 correct?

7 A. I didn't count, but I will believe you,
8 yes.

9 Q. And Dr. Dorsey is the first author listed,
10 correct?

11 A. Correct.

12 Q. And this was published in 2024?

13 A. Yes.

14 Q. Did you begin work on this litigation while
15 working on this article?

16 A. No.

17 Q. So you completed your work on this article
18 prior to being retained in this litigation?

19 A. Correct.

20 Q. But it was published after you were
21 retained, correct?

22 A. It looks like the publication -- what was
23 the exact publication date? February of 2024. No,
24 actually, I believe I was retained in March of 2024.

25 Q. Okay. And is this your only publication on

1 the chemicals at issue in this litigation?

2 A. Yes.

3 Q. What was your role in writing this
4 publication?

5 A. My role in this publication was as an
6 independent evaluator of the subjects and then in
7 the reading and editing of the publication.

8 Q. That sounds somewhat like a peer reviewer.
9 Is that the type of role you had?

10 MR. BARR: Object to form.

11 A. No, it's more of an input into content and
12 inform.

13 Q. Did you write any sections of this
14 publication?

15 A. No.

16 Q. And Dr. Schwarz is also one of the
17 co-authors on this article, correct?

18 A. Correct.

19 Q. Did you -- do you agree with the methods in
20 this publication?

21 A. Yes.

22 Q. And do you agree with the findings in this
23 publication?

24 A. Yes.

25 Q. What prompted the study of these attorneys?

1 MR. BARR: Object to form.

2 A. The concept or testing the possibility that
3 exposure to TCE might be a risk factor for
4 Parkinson's disease, and I believe the original idea
5 came from a potential toxicology site in Rochester.

6 Q. Was it a Parkinson's cluster that initiated
7 interest in studying these attorneys?

8 A. Yes.

9 Q. And you said the site is in Rochester,
10 correct?

11 A. Correct.

12 Q. And you live in Rochester, correct?

13 A. Correct, yes.

14 Q. So is there a chance that you have been
15 exposed to TCE given your proximity?

16 MR. BARR: Object to form.

17 A. I would say there's a chance.

18 Q. I want to go to the second page, the
19 abstract at the top. Actually, before we get to the
20 abstract, you talked about your criteria for
21 determining what is a high-quality study.

22 We previously talked about that, correct?

23 A. Correct.

24 Q. And one of the things you looked at -- you
25 considered as a criteria was data source, correct?

1 A. Correct.

2 Q. And do you ever consider proxy reporting as
3 a part of your analysis of data source?

4 MR. BARR: Object to form.

5 A. It can be. Yes, it can be.

6 Q. And how do you view proxy reporting?

7 A. It's not as strong as direct reporting, but
8 it is, you know, an acceptable level of reporting
9 for many cases.

10 Q. Going back to the abstract on your article
11 with Dr. Dorsey, Exhibit Number 8. The third
12 sentence in the results section, it states, "For 5.1
13 of them who worked near the polluted site reported
14 PD more than expected based on age and sex.
15 1.7 percent $P = 0.01$, but not significantly higher
16 than the comparison group, $N = 1.3$ percent, $P =$
17 0.7."

18 Did I read that correctly?

19 A. Yes.

20 Q. Was the PD designation based off of
21 self-reporting?

22 A. The PD designation? No, those were both
23 medical records and examination. That was my role,
24 to examine and confirm diagnoses.

25 Q. Your role was to examine the participants?

1 A. I examined the participants, correct.

2 Q. Okay. So we previously discussed your role
3 was more about input, and so is this in addition to
4 what we previously discussed was your role in this
5 study?

6 A. No, all of that is included. So the way a
7 study like this works is someone has an idea, and a
8 team divides up the roles, the tasks, but everyone
9 comes together to give input and, you know, discuss
10 the publication. So in the data gathering part of
11 this study, my role was to do the examinations on
12 the patients.

13 Q. Did anyone assist in that with you?

14 A. I did the cases on my own, but I did not do
15 all of them. So other people had done some. The
16 work was divided up.

17 Q. Did Dr. Schwarz assist in that?

18 A. Yes.

19 Q. So I want you -- if you would turn to
20 Page 608, about halfway down the third -- sorry, the
21 left-hand column, it says, "Results: Phase I"?

22 A. Uh-huh.

23 Q. And the second sentence says, "Proxies
24 completed responses for 14 disabled or deceased
25 individuals," correct?

1 A. Correct.

2 Q. So there was proxy reporting included in
3 this study, correct?

4 A. Correct.

5 Q. Do you know what recall bias is?

6 A. Yes.

7 Q. Can you explain what recall bias is?

8 A. Sure. Recall bias is a recall of an event
9 that does not match contemporaneous records and
10 based on some predisposition towards remembering
11 certain qualities of that event.

12 Q. Recall bias can be a limitation in a study,
13 correct?

14 A. Yes.

15 Q. Is it a limitation in this study?

16 A. I don't believe so.

17 Q. Questionnaires were completed in this
18 study, correct?

19 A. Correct.

20 Q. And questionnaires would be a typical
21 instance where recall bias could occur, correct?

22 A. Correct.

23 MR. BARR: Object to form.

24 Q. But you do not believe recall bias is a
25 limitation of this study?

1 MR. BARR: Object to form. Asked
2 and answered.

3 A. No, I don't. Recall bias when it comes to
4 diagnosing certain diseases is difficult. In other
5 words, it's less in certain diseases. So if, for
6 example, I was doing a study on migraine and I asked
7 to fill out a questionnaire on how many migraines
8 you have had over the last month, migraines, you
9 might not recall correctly. If the -- part of the
10 diagnosis is a physical finding that is obvious to
11 the patient and others, recall bias is diminished.

12 Q. The questionnaire included information
13 beyond simply a diagnosis of PD, correct?

14 A. Correct.

15 Q. So it included things like cigarettes
16 smoked in a lifetime?

17 A. Correct.

18 Q. Is that where recall bias could come into
19 this study?

20 A. Again, different activities are, more or
21 less, prone to different recall biases. Again, the
22 analogy of cigarette smoking, people often don't --
23 or often fairly accurate with their recall of
24 smoking cigarettes as opposed to, say, soda drinking
25 or some other activity.

1 I'm sorry. You were going to follow that
2 with a question.

3 Q. I wanted you to finish your question.

4 A. Oh, thank you. So I think there is a
5 chance of recall bias in this situation, but I think
6 it's low.

7 Q. And so you just testified that drinking
8 sodas would be an instance where recall bias could
9 come into play, correct?

10 A. As an example, yes.

11 Q. And this questionnaire looked at drinking
12 coffee, correct?

13 A. Correct.

14 Q. Which seems to me very similar to drinking
15 soda --

16 MR. BARR: Object to form.

17 Q. -- correct?

18 A. No, because, to be honest, when I gave that
19 example I was thinking, in my head, a particular
20 brand of soda. Most people know whether they drink
21 coffee or not. The amount though could come into
22 recall bias, yes, the amount of coffee.

23 Q. Okay. How about the amount of
24 decaffeinated green tea?

25 MR. BARR: Object to form.

1 A. The same, yes, it could.

2 Q. So if you take a look at Page 610, Table 1,
3 there's a list of risk factors that were established
4 through the questionnaire, correct?

5 A. Correct.

6 Q. And these are instances where recall bias
7 may come into play in the study, correct?

8 A. Yes.

9 Q. And I want to take a look at -- it says,
10 "Risk factor questionnaire." Do you see that? In
11 Table 1.

12 MR. BARR: Are you in the table?

13 MS. PLATT: Yes.

14 A. Yes, yes.

15 BY MS. PLATT:

16 Q. It says, "Risk factor questionnaire, tower
17 cohort = 46," correct?

18 A. Yes.

19 Q. Does that mean only 46 participants
20 completed the questionnaire?

21 A. That's correct.

22 Q. And so the information on exposures for the
23 tower cohort is actually limited to only
24 46 participants of the study; is that correct?

25 A. That's correct.

1 Q. And if we look to the top heading of that,
2 the tower cohort -- sorry. The top heading of that
3 table, the tower cohort participants were 79,
4 correct?

5 A. Yes.

6 Q. Okay. Did the risk factor questionnaire
7 ask about head injuries?

8 A. No.

9 Q. Traumatic head injuries are a risk factor
10 for Parkinson's disease, correct?

11 MR. BARR: Object to form.

12 A. I would want to clarify that, especially
13 going forward in our discussion. When -- I think,
14 unfortunately, people conflate head injury with
15 brain injury, and those aren't the same. One is the
16 subset of the other. So traumatic brain injury is a
17 risk factor for Parkinson's, yes, but I wouldn't be
18 overinclusive and say head injury.

19 Q. Let me make sure I understand what you just
20 said.

21 A. Sure.

22 Q. So traumatic head injuries are a risk
23 factor for Parkinson's disease?

24 MR. BARR: Object to form.

25 A. Yeah, so I would like to just clarify that

1 so we make sure we are talking about the same thing.
2 If I trip and cut my head, it's a traumatic head
3 injury, but I may not have suffered any brain
4 injury. So traumatic head injury itself -- there's
5 traumatic brain injury that, obviously, involves
6 head injury, but head injury doesn't involve brain
7 injury. So I wouldn't want to go forward being
8 overly persuasive in saying head injury, so if we
9 keep it to traumatic brain injury, then I would
10 agree.

11 Q. Okay.

12 A. Does that -- did that make it clear?

13 Q. Yes. Thank you for clarifying.

14 A. You're welcome.

15 Q. Did this questionnaire in the Dorsey study
16 ask about traumatic brain injury?

17 A. No.

18 Q. And traumatic brain injury is a risk factor
19 for Parkinson's disease?

20 A. Yes.

21 Q. It would be important to note traumatic
22 brain injury in this study, correct?

23 A. Yes.

24 Q. We will go ahead and take a look at
25 Table 2. If you turn to the second page of Table 2,

1 which is on Page 611.

2 A. Okay.

3 Q. About halfway down, right before the bolded
4 aggregate title, it states, "Scale for outcomes in
5 Parkinson's disease for autonomic symptoms, mean
6 SD," correct?

7 A. Correct.

8 Q. And the numbers are 8.5, 5.3, 10.0, 6.2
9 with a P value of 0.06, correct?

10 A. Correct.

11 Q. Does it seem reasonable to you that these
12 values are 1.5 different with SDs of 5.3 and 6.2
13 that could give you a P value of 0.06?

14 MR. BARR: Object to form.

15 A. Superficially, it seems reasonable. I
16 haven't redone the statistics on that. Yeah, I
17 would say it's reasonable. Again, I would have to
18 redo the statistics a little.

19 Q. Would the data for the study be available
20 for production?

21 MR. BARR: Object to form.

22 A. I don't -- I don't know that. I'm not the
23 owner of that data.

24 Q. Okay. And you said that you were involved
25 in the examination of participants, correct?

1 A. Correct.

2 Q. Did you do that examination in person?

3 A. Yes.

4 Q. How long did that examination last?

5 A. They generally lasted, I would say, 30 to
6 45 minutes.

7 Q. Did you do a differential diagnosis?

8 A. No.

9 Q. Did you ask about risk factors?

10 A. No, I don't think I did. I'm trying to
11 recall. I think we -- my role was to go in and do
12 the examination as a physical examination.

13 Q. Did you review the medical records of that
14 participant?

15 A. No.

16 Q. And so your examination of these
17 participants was limited to a 30 to 45-minute
18 diagnosis of Parkinson's disease, correct?

19 A. Or the physical findings of, yes. The idea
20 there is to not be biased by any other provider's
21 diagnosis.

22 Q. Were you aware of whether this participant
23 indicated that they had a Parkinson's diagnosis
24 before they entered your exam?

25 A. No.

1 Q. Would you agree that every patient is
2 different with idiosyncratic risk factors?

3 MR. BARR: Object to form.

4 A. Yes, as a broad statement, sure.

5 Q. And in your practice, have you ever treated
6 individuals with Parkinson's disease that were
7 exposed to water at Camp Lejeune?

8 A. No, not that I recall.

9 Q. Have you ever concluded in your clinical
10 practice that a patient's Parkinson's disease was
11 caused by TCE?

12 A. No.

13 Q. Have you ever concluded in your clinical
14 practice that a patient's Parkinson's disease was
15 caused by PCE?

16 A. Well, in both of those questions, I would
17 have to say it wasn't an evaluation that I
18 undertook. So the answer on the superficial level
19 is no, I mean, that's honest, I never came up with
20 that diagnosis. But I also never investigated that.

21 Q. Other than this case, have you ever offered
22 an opinion as an expert in a case involving toxic
23 exposures?

24 A. No.

25 Q. Have you -- other than this case, have you

1 ever offered an expert opinion in Parkinson's
2 disease involving toxic exposures?

3 A. No.

4 Q. Other than this case, have you ever offered
5 an expert opinion on the ideology of Parkinson's
6 disease?

7 A. No.

8 Q. I want to turn now to your reports on
9 Mr. Peterson and Mr. McElhiney. And there are some
10 general sections that you wrote for both of those
11 reports, correct?

12 A. Correct.

13 Q. So for ease of reference, I'm going to just
14 refer to one and note that it's in both reports; is
15 that okay?

16 A. That's okay.

17 Q. And if there's any question, we can,
18 obviously, go to the other report and make sure it's
19 in there if you have any doubt.

20 A. Sure.

21 Q. So let's take a look at Mr. McElhiney's
22 report. It is Exhibit Number 3. At the bottom of
23 that first page, the last paragraph, you state, "I
24 have remained clinically active over the last 31 --"
25 sorry "-- last 31 years."

1 Did I read that correctly?

2 A. Yes, that's correct.

3 Q. What does "clinically active" mean?

4 A. Seeing patients on a regular basis.

5 Q. Have you clinic -- you have clinically
6 treated patients with Parkinson's disease, correct?

7 A. Correct.

8 Q. How many?

9 MR. BARR: Object to form.

10 A. It would be really an estimate, but
11 hundreds.

12 Q. Have you clinically diagnosed patients with
13 Parkinson's disease?

14 A. Yes.

15 Q. How many, if you had to estimate?

16 MR. BARR: Object to form.

17 A. You mean made the initial diagnosis of the
18 disorder?

19 Q. Correct.

20 A. I would probably estimate well over 100.

21 Q. Can you talk about what you do to diagnose
22 patients with Parkinson's disease?

23 A. Sure. Parkinson's disease is generally
24 diagnosed, we will take a history of some clear
25 prodromal symptoms, including REM sleep behavior

1 disorder, receiving depression or constipation,
2 changes in handwriting, loss of sense of smell.
3 These are some of the common prodromes to the
4 diagnosis of Parkinson's, and probably represent the
5 initiation of the problem.

6 And then, a physical exam, looking for
7 significant features, you know, including tremor, ^,
8 rigidity, loss of balance. Those are the cardinal
9 features. And then, of course, along with a
10 timeframe, a history, those all go into determining
11 whether I'm going to tell a patient they likely have
12 Parkinson's disease.

13 Q. And you say "likely." Why do you use the
14 word "likely" there?

15 A. Well, let's face it, nothing is ever
16 100 percent and, you know, before I tell a patient
17 that they have Parkinson's disease, I want to be
18 pretty sure, 90 percent or better. Otherwise, I
19 will probably discuss the possibility among other
20 things in the differential diagnosis.

21 Q. And do you typically make that statement
22 after one interaction with the patient?

23 A. Frequently, yeah. Typically, I would say
24 most of the time that's why patients are referred to
25 me, to make that determination, and I generally will

1 at least lay out that possibility on the first
2 visit.

3 Q. Are you ever 99 or 100 percent sure after
4 that first interaction?

5 MR. BARR: Object to form.

6 A. Sometimes, I would guess. You know, 99 or
7 100 percent is a little hard to say for sure, but
8 yeah, sometimes you are pretty darn sure.

9 Q. And how long is that typical interaction
10 when you make that initial diagnosis?

11 MR. BARR: Object to form.

12 A. Usually about an hour. Usually about an
13 hour with the patient, but frequently there is more
14 time involving prior records.

15 Q. So part of your analysis is relying on
16 another medical professional previously evaluating
17 that patient, correct?

18 MR. BARR: Object to form.

19 A. Partly reliable on other professional
20 collecting accurate data. The evaluation generally
21 is mine.

22 Q. Have you diagnosed a patient with
23 Parkinson's disease via Zoom?

24 A. Yes.

25 Q. On Page 12 of your report on Mr. McElhiney,

1 and this is also in the report on Mr. Peterson, at
2 the bottom of the page -- the first sentence of that
3 last paragraph, "Parkinson's disease is known to be
4 associated with a number of risk factors."

5 Did I read that correctly?

6 A. Yes.

7 Q. What risk factors are associated with
8 Parkinson's disease?

9 MR. BARR: Object to form.

10 A. There's generic risk factors, traumatic
11 brain injury as we had spoken about, and certainly
12 environmental toxins.

13 Q. Any other risk factors?

14 A. Those are the major risk factors in the
15 concept of what actually increases a person's risk
16 of having the disorder from a biological basis as
17 opposed to an association.

18 Q. What about age?

19 A. Age is a risk factor, yes.

20 Q. What about being male?

21 A. There's an increased incidence in
22 Parkinson's disease and being male. I guess it
23 really depends on how you want to conceptualize risk
24 factor. So being male would be considered, you
25 know, in a lot of literature, a risk factor as you

1 say. There's an increase in incidents. The real
2 question is, in my mind, is: Does being male make
3 you more susceptible to developing Parkinson's
4 versus being a female? That would be something that
5 would need to be discussed.

6 Q. And how would you want that to be
7 discussed?

8 A. Well, when one talks about risk factors, in
9 my opinion, there's two broad issues that come up,
10 associations and the actual pathophysiologic
11 causations. So if you said being a -- well, let's
12 see if I can come up with an analogy. I'm not sure
13 I need to just right yet, but the point of it is if
14 you have a population that you are studying that is
15 predominantly male, and the actual causation is
16 associated with that, say, occupation, you could say
17 this is more common in men, but the issue really is
18 that there is more men in that exposure group, let's
19 just say.

20 So I haven't -- I'm not aware of any
21 literature that says having an XY gene or being
22 genetically male puts you at an increased risk from
23 an underlying pathophysiologic cause for
24 Parkinson's.

25 Did that explain that?

1 Q. And epidemiological studies typically
2 account and make adjustments on the basis of things
3 like age and sex, correct?

4 A. Yes, that's --

5 MR. BARR: Object to form.

6 A. Yes, that's correct.

7 Q. And then, on Page 12 -- sorry, not Page 12.

8 Turning to Page 13, you state in the first
9 full paragraph, "In my opinion, it would be more
10 accurate to say that there are likely multiple
11 factors affecting the development of Parkinson's
12 disease including certain genetic factors and
13 environmental exposures. These factors are not
14 mutually exclusive."

15 Correct?

16 A. Correct.

17 Q. So you agree that Parkinson's disease is
18 multifactorial, correct?

19 A. As a general statement, yes, it can be.

20 Q. So in other words, multiple factors can
21 lead to the development of Parkinson's disease,
22 correct?

23 A. Yes.

24 Q. And no one factor is exclusive, correct?

25 MR. BARR: Object to form.

1 A. No, I wouldn't agree with that.

2 Q. You do not agree with that statement?

3 A. I do not agree with that statement.

4 Q. And you stated in your report, "These
5 factors are not mutually exclusive," correct?

6 A. Correct.

7 Q. Can you explain why you disagree with that
8 statement?

9 A. Sure. There are certain genetic
10 abnormalities, for example, that if the person has
11 those genes, they are likely to develop Parkinson's.
12 The other factors that lead to that person's
13 developing Parkinson's may be totally
14 inconsequential.

15 Q. Okay. Would you agree that the precise
16 cause of Parkinson's is generally unknown?

17 MR. BARR: Object to form.

18 A. Currently, I would say that there's
19 multiple, as you had just mentioned, potential
20 causative factors. And in any one case, you know,
21 one could come up with a reasonable degree of
22 certainty that a particular factor is causative.

23 In general, the majority of cases of
24 Parkinson's disease on just a real clinical basis,
25 people often don't look at, in general clinical

1 practice, the underlying causes because the disease
2 would be the same and the treatment would be the
3 same.

4 So if the -- saying that something is
5 unknown is not the same as saying it's unknowable.
6 So in certain particular cases, you know, one could
7 feel confident that a factor was causative.

8 Q. In a majority of Parkinson's cases, an
9 individual does not know what caused their
10 Parkinson's, correct?

11 A. Correct.

12 MR. BARR: Object to form.

13 A. Correct.

14 Q. And there's currently no test to tell us
15 the exact cause of Parkinson's in an individual,
16 correct?

17 MR. BARR: Object to form.

18 A. Correct.

19 Q. And if you want to turn to Page 2 of
20 Exhibit 3, and, again, we are looking at Exhibit 3,
21 but this is also in your report on Mr. Peterson,
22 Exhibit 2.

23 A. Okay.

24 Q. In both of your reports, you state that you
25 conducted a medical literature review, correct?

1 MR. BARR: Can you point out where
2 you are at just so we can follow along?

3 MS. PLATT: At the very bottom of
4 Page 2, the second-to-last paragraph.

5 BY MS. PLATT:

6 Q. Do you see that?

7 A. Yes, sorry.

8 Q. So let me repeat my question. In both
9 reports, you state you conducted a medical
10 literature review, correct?

11 A. Correct.

12 Q. Can you describe how you conducted that
13 review?

14 A. Yes, through a PubMed search with the
15 appropriate keywords depending on what aspect of the
16 case I was reviewing.

17 Q. Did those keywords change as you continued
18 to write your reports?

19 A. It would change for different sections of
20 the report. For example, the keyword may be
21 Parkinson's disease and TCE, or Parkinson's disease
22 and traumatic brain injury, or Parkinson's disease
23 and, dot, dot, dot.

24 Q. So as you move throughout the topics of
25 your report, the search results would change?

1 A. Based on what I would put in, yes, I would
2 pull up different articles, yes.

3 Q. Okay. Did you use any other search engines
4 other than PubMed?

5 A. No.

6 Q. If you turn to Page 5 of your report.
7 Sorry. At the top of Page 5, you have, in the
8 second sentence, a list of search words. You state,
9 "This was performed using search words including but
10 not necessarily limited to combinations of
11 Parkinson's disease and Parkinsonism with exposure,
12 causative factors, ideology, toxins, head trauma,
13 genetics, and risk factors."

14 Did I read that correctly?

15 A. Yes.

16 Q. Do you have a record of the combinations
17 you used?

18 A. No.

19 Q. So the search results could not be
20 reproduced, correct?

21 A. Correct.

22 Q. What was your inclusion and exclusion
23 criteria?

24 A. Inclusion criteria would be if the article
25 had the potential in relation to formulating an

1 opinion in this particular case.

2 Q. And the exclusion criteria?

3 A. If it was irrelevant to this case.

4 Q. And how did you determine what was relevant
5 to the case?

6 A. I would say reasonable and logical. If I
7 put up risk factors for PD and there was an article
8 on risk factors for PD in scuba divers in Tasmania,
9 I would probably not read that article. So things
10 that were, I would think, reasonable and potentially
11 pertinent to this particular case.

12 Q. And you would -- in this hypothetical --
13 would say that Parkinson's disease in scuba divers
14 in Tasmania is not relevant to your review of
15 literature in this case?

16 MR. BARR: Object to form.

17 A. I would make that determination, yes.

18 Q. And that sounds like a pretty subjective
19 determination; is that correct?

20 MR. BARR: Object to form.

21 A. It's based on 30 years of experience and
22 relevance to the science involving this case.

23 Q. And another expert with 30 years of
24 experience could make a different decision about
25 that article about scuba divers in Tasmania,

1 correct?

2 MR. BARR: Object to form.

3 A. Sure.

4 Q. Did you deem any studies as higher quality
5 than others?

6 MR. BARR: Object to form.

7 A. Yes.

8 Q. And how did you make that determination?

9 A. By the same criteria that we had discussed
10 before, size of the study, completion of the data
11 collection, relevance to the population in question,
12 and the, you know, the design of the study, so to
13 speak.

14 Q. And do you provide that explanation in your
15 report?

16 A. No.

17 Q. We previously went over your materials list
18 considered and the three supplemental lists that you
19 provided, correct?

20 A. Correct, yes.

21 Q. And is there anything that you reviewed in
22 your -- in writing your reports that was not
23 included in those lists?

24 MR. BARR: Object to form.

25 A. Yes. I do not list all of the actual

1 articles that I reviewed, just the ones that I felt
2 were worth citing.

3 Q. And so there are articles you read in
4 writing these reports that you did not cite,
5 correct?

6 A. Correct.

7 Q. And you did not include those articles in
8 your materials list considered, correct?

9 A. Correct.

10 MS. PLATT: And we would request
11 that a list of those articles be
12 produced.

13 MR. BARR: You can make that
14 request.

15 BY MS. PLATT:

16 Q. And then, Page 5, you state in both of your
17 reports at the top of Page 5, "Potentially pertinent
18 citations from discovered articles were then
19 secondarily investigated," correct?

20 A. Correct.

21 Q. What does that mean?

22 A. When one does a literature search in
23 medicine, you may come up with 100 articles or
24 X-number of articles, some of them you will read the
25 -- and I'm not sure if you are familiar with PubMed,

1 but what you will get is the title and the abstract.

2 Based on the title and abstract, for
3 example, given the example I gave you before, I
4 might not pull that article in the sense of take it
5 out and look at the entirety of the article. So the
6 ones that I thought were pertinent and potentially
7 important to formulating an opinion, I would open up
8 that article on PubMed and read through it.

9 Q. And did you cite those articles in your
10 materials considered list?

11 A. Some of them.

12 Q. But not all?

13 A. Not all.

14 MS. PLATT: And, again, we would
15 request those additional materials that
16 Dr. Barbano considered in writing his
17 reports.

18 MR. BARR: And you can make that
19 request.

20 BY MS. PLATT:

21 Q. And then, going further on Page 5, you
22 state, "Articles were included for consideration if
23 they were potentially important to formulating an
24 opinion relative to this case as to what causative
25 factors, in any, should be considered."

1 And I believe you meant "if any."

2 A. Correct.

3 Q. Did I read that correctly?

4 A. Yes, you did.

5 Q. And I want to continue on with that
6 sentence. "Whether they support or negate the
7 theory of TCE as a causative factor in the
8 development of Parkinson's disease and whether they
9 support or negate other causative factors in the
10 development of Parkinson's disease."

11 Did I read that correctly?

12 A. Correct.

13 Q. Did you only search for articles?

14 MR. BARR: Object to form.

15 A. As opposed to?

16 Q. Any other forms of publication?

17 A. PubMed sometimes includes abstracts, so I
18 -- or posters can sometimes come up, so I can't say
19 for sure there were not posters or other forms of
20 publications.

21 Q. Did your search include epidemiological
22 studies and publications?

23 A. Yes.

24 Q. Toxicological studies and publications?

25 A. Yes.

1 Q. If an epidemiological article came up in
2 the search results, how did you evaluate whether an
3 article was potentially important with respect to
4 what causative factors, if any, should be
5 considered?

6 MR. BARR: Object to form.

7 A. Based on its relevant -- relevance to the
8 question I had in my mind.

9 Q. And what is the question you had in your
10 mind?

11 A. Is it at least as likely as not that TCE
12 was causative to the Parkinson's disease in these
13 two claimants.

14 Q. And as we previously discussed, when you
15 review epidemiological literature, you are reviewing
16 it from your perspective as a neurologist, correct?

17 A. That's correct.

18 Q. And the same for the toxicological
19 literature, you are reviewing it in the perspective
20 as a neurologist, correct?

21 A. Correct.

22 Q. And then, under the heading D on Page 5,
23 and, again, this is stated in both of your reports,
24 you state you reviewed general causation expert
25 reports along with an exposure report, correct?

1 A. Correct.

2 Q. And that includes the list of materials
3 directly below that quote, correct?

4 A. Correct.

5 Q. Continuing on in that paragraph under
6 heading D, you state, "This information was
7 considered as to whether it supports or does not
8 support the opinion of causation of Parkinson's
9 disease in the case of Mr. McElhiney," correct?

10 A. Correct.

11 Q. And then, for the report on Mr. Peterson,
12 it would be the same statement, but in the case of
13 Mr. Peterson, correct?

14 A. Correct.

15 Q. What information are you referring to in
16 that sentence?

17 MR. BARR: Object to form.

18 A. Broadly speaking, I read through those
19 general causation reports and wanted to see whether
20 they matched my understanding of Parkinson's
21 disease, whether they seemed valid to me, and
22 whether the pathology, the pathophysiology and the
23 biology seemed reasonable.

24 Q. Did you disagree with anything you read in
25 these reports you listed on Page 5?

1 A. Not in particular.

2 Q. Were you able to perform any independent
3 analysis of the findings of these reports?

4 A. No.

5 Q. And these reports are all reports by the
6 plaintiffs' experts, correct?

7 A. Correct.

8 Q. Did you review the expert reports the
9 United States submitted in general causation?

10 A. Yes, that's in one of the addenda.

11 Q. So of these general causation reports you
12 have listed on Page 5, did you speak with any of the
13 experts of the reports you reviewed?

14 A. Yes.

15 MR. BARR: And you can talk -- you
16 can answer that you spoke to them, but
17 you cannot get into the -- what the
18 conversation was.

19 Q. So let me just repeat the question for the
20 record.

21 A. Okay.

22 Q. Did you speak with any of the experts
23 listed on Page 5?

24 MR. BARR: Same instruction.

25 A. Yes.

1 Q. Which ones did you speak with?

2 A. Dr. Reynolds.

3 Q. Any others?

4 A. That's it. No.

5 Q. When did you speak with Dr. Reynolds?

6 MR. BARR: Same instruction.

7 A. It would be an estimate. Maybe December of
8 last year, around December, January, in that
9 timeframe.

10 Q. How many times did you meet with
11 Dr. Reynolds?

12 MR. BARR: Object to form.

13 A. I never met with her. I spoke with her by
14 phone once.

15 Q. Was anyone else part of that phone call?

16 A. No.

17 Q. It was just you and Dr. Reynolds?

18 A. Correct.

19 Q. Did any of your opinions change after you
20 spoke with Dr. Reynolds?

21 A. No.

22 Q. Do you know if any of Dr. Reynolds'
23 opinions changed after she spoke with you?

24 MR. BARR: Object to form.

25 A. I don't know.

1 Q. How long did you speak with Dr. Reynolds?

2 A. It would be an estimate, but 30 to
3 45 minutes.

4 Q. Did Dr. Reynolds provide you with any facts
5 or data to consider during that conversation?

6 MR. BARR: Object to form.

7 A. Nothing other than I already had on hand.

8 MS. PLATT: Why don't we take a
9 break right now?

10 VIDEOGRAPHER: Time on the monitor
11 is 10:34. We are off the record.

12 (Brief recess.)

13 VIDEOGRAPHER: Time on the monitor
14 is 10:46. This begins media 2. We are
15 on the record.

16 BY MS. PLATT:

17 Q. Dr. Barbano, before we took a break, we
18 were talking about the list of experts that you
19 reviewed their expert reports that you list on
20 Page 5 of your report.

21 Did you evaluate the methodology of the
22 experts listed here?

23 A. To a superficial extent.

24 Q. And what extent is a superficial extent in
25 your --

1 A. To reading the report and, in my mind,
2 seeing whether I felt it had an internal consistency
3 with the pathology and other primary literature that
4 I had reviewed.

5 Q. And you did this with all of the experts
6 listed here?

7 A. Yes.

8 Q. And does that include the exposure report
9 of Dr. Reynolds?

10 A. Yes.

11 Q. And did you agree with any of the specifics
12 in any of the reports listed here?

13 MR. BARR: Object to form.

14 A. I'm sure I agreed with many. You would
15 have to show me a statement to see whether I agreed
16 with that particular one. I mean, there was lots of
17 pages here, so in general, I found them to be
18 reasonable.

19 Q. Does anything in your recollection stand
20 out that you disagreed with in the reports of the
21 general causation experts?

22 MR. BARR: Object to form.

23 A. No.

24 Q. To the best of your recollection, is there
25 anything in particular you disagreed with in the

1 exposure report of Dr. Reynolds?

2 MR. BARR: Object to form.

3 A. No.

4 Q. Did you review the studies or publications
5 cited in these reports?

6 A. Some.

7 Q. How did you determine which studies you
8 were reviewing?

9 A. Based on whether -- well, to be honest,
10 based on whether they interested me and they looked
11 as if they were important enough for me to consider
12 in formulating an opinion.

13 Q. Of the studies that you reviewed, do you
14 remember what ones those were?

15 MR. BARR: Object to form.

16 A. No, not offhand.

17 Q. Did you independently evaluate these
18 studies?

19 MR. BARR: Form.

20 A. I read them. I did not do any independent
21 evaluation as to whether the publication had
22 validity or accuracy. The articles that I reviewed
23 were peer-reviewed articles and I left that to the
24 peer reviewers.

25 Q. Did you agree with the expert's analysis of

1 the studies?

2 MR. BARR: Object to form.

3 A. By and large, yes.

4 Q. You say, "by and large." Is there anything
5 that you disagreed with?

6 A. Not that I can recall.

7 Q. For the exposure report of Dr. Reynolds,
8 did you evaluate the methodology Dr. Reynolds
9 undertook in creating her report?

10 A. Can you -- I don't mean to be -- give you a
11 hard time. But can you tell me how you are using
12 the word "evaluate"?

13 Q. Yeah. So as you read through Dr. Reynolds'
14 report and you saw the methodology she reviewed, did
15 you do any, you know, independent analysis of that
16 methodology?

17 A. No.

18 Q. Did you have any disagreements with the
19 methodology that Dr. Reynolds undertook in creating
20 that report?

21 A. No.

22 Q. Can you explain Dr. Reynolds' methodology
23 in creating her report?

24 MR. BARR: Object to form.

25 A. Yes, to some level.

1 Q. Can you go ahead and explain that for us?

2 A. Sure. My understanding of Dr. Reynolds is
3 that she, at least in the cases I reviewed, she took
4 different scenarios of water consumption based on
5 the ATSDR, based on the field manual, and based on
6 depositions. And based -- based on those three
7 different scenarios, created tables regarding toxic
8 consumption, again, based on the data regarding the
9 amount of chemicals in the water.

10 Q. And you referenced field manuals. What are
11 the field manuals?

12 A. My understanding is that the field manual
13 is the manual put out by the Marine Corps for people
14 stationed at the base.

15 Q. Did you review the field manuals?

16 A. No.

17 Q. And so you have no way of knowing whether
18 the information that Dr. Reynolds included from the
19 field manuals in her report is accurate?

20 MR. BARR: Object to form.

21 A. That's correct.

22 Q. Did you review the water consumption
23 scenarios created by ATSDR that Dr. Reynolds
24 included in her report?

25 A. Yes.

1 Q. Which ATSDR water assumptions did you
2 review?

3 A. I would have to -- was that Bovey or was it
4 in the ATSDR? I actually don't remember right here
5 where I had seen it, but I saw some of the
6 estimations.

7 Q. And when you say estimations, estimations
8 of what?

9 A. Water consumption.

10 Q. And did you independently analyze the --
11 that water consumption assumption?

12 MR. BARR: Object to form.

13 A. No.

14 Q. You also mentioned that Dr. Reynolds
15 reviewed depositions to form her different
16 scenarios, correct?

17 A. That's my understanding, yes.

18 Q. Did you independently review those
19 depositions?

20 A. Yes.

21 Q. Which ones did you review?

22 A. The depositions of Mr. McElhiney and
23 Mr. Peterson.

24 Q. And did you agree with the scenarios that
25 Dr. Reynolds created based off of those depositions?

1 A. Yes.

2 Q. Did you perform an independent analysis of
3 Dr. Reynolds' exposure calculations?

4 MR. BARR: Object to form.

5 A. No.

6 Q. Dr. Barbano, you conducted independent
7 medical examinations or IMEs in this case, correct?

8 A. Correct.

9 Q. If I refer to them at IMEs, will you
10 understand what I'm talking about?

11 A. Yes.

12 Q. Have you conducted IMEs in prior cases?

13 MR. BARR: Object to form.

14 A. In prior cases regarding this lawsuit or in
15 general.

16 Q. Just in general as an expert, have you
17 conducted an IME before?

18 A. Oh, yes.

19 Q. How many times?

20 A. I'm going to estimate 200 or 300.

21 Q. As an expert?

22 A. Yes.

23 Q. How many times have you been an expert
24 witness?

25 A. Probably 300 or 400 times.

1 Q. Other than this case, when was the most
2 recent time you were an expert?

3 A. I'm currently an expert witness for several
4 open cases at present.

5 Q. Have you been deposed in those cases?

6 A. Not in the current cases, but in past
7 cases, yes.

8 Q. When was the last time you were deposed as
9 an expert?

10 A. I'm going to guess maybe about two years
11 ago.

12 Q. Mr. -- Dr. -- I'm sorry.

13 Dr. Barbano, if you would turn to your
14 expert report, let's look at Mr. McElhiney's report,
15 which is Exhibit Number 3, on Page 36.

16 A. Yes.

17 Q. 36 of the report, not your CV.

18 A. Oh, sorry.

19 Q. Sorry. The pages restart numbering.

20 A. Got it. Yes.

21 Q. So at the top of this page, it says,
22 "Testimony last four years," correct?

23 A. Yes.

24 Q. And so it sounds like this is an incomplete
25 list of your testimony from the last four years,

1 correct?

2 A. No. I think this is correct. I think my
3 ability to judge about a year or a few years might
4 be a little bit off. I do not recall testifying or
5 giving a deposition since this case listed here. I
6 keep a list of those, so I think this is accurate.
7 I think my recall right now of it being about a year
8 ago is inaccurate.

9 Q. Okay. What was the name of the last case
10 that you recall being deposed in?

11 A. This one here.

12 Q. Other than this one.

13 A. Oh --

14 MR. BARR: Object to form. You are
15 talking outside of four years?

16 MS. PLATT: Yes.

17 MR. BARR: Go ahead.

18 A. I don't recall the last one prior to four
19 years. I just don't recall it as I sit here.

20 BY MS. PLATT:

21 Q. But you said that you have a list of all of
22 the cases you have been deposed in, correct?

23 A. Yes.

24 Q. And you could produce that list?

25 A. Yes.

1 MS. PLATT: We request that list be
2 produced.

3 MR. BARR: You can make the
4 request, and we will look it, and we
5 will make our objection if needed.

6 BY MS. PLATT:

7 Q. Are the dates of your depositions included
8 on that list?

9 A. Yes.

10 Q. Great. And in this case listed here, you
11 were deposed as a fact witness, correct?

12 A. Correct.

13 Q. Did you testify at trial as a fact witness?

14 A. No.

15 Q. And what was the reason for being deposed
16 in this case?

17 A. This was a medical malpractice case against
18 another physician and I was the treating physician
19 involved in this case of this plaintiff as you see
20 here.

21 Q. Was the malpractice case against you?

22 A. No.

23 Q. Do you recall being an expert in the matter
24 of Kirschler v. Village of North Collins?

25 A. Not immediately, but if you give me some

1 details, it might bring that back.

2 Q. Well, I don't have details of it because
3 you didn't provide that as a case that you have been
4 an expert in, so I'm trying to understand when you
5 were an expert in that case.

6 A. You know, I don't recall.

7 Q. But if you were an expert in that case, it
8 would be on this list you have of times you were
9 experts, correct?

10 MR. BARR: And by "this list," you
11 mean the one he keeps in his office, not
12 this list?

13 MS. PLATT: Yes, his personal list.

14 A. Not necessarily. So the list that I keep
15 here that we are referring to where it says it's the
16 last four years, it's just a list of cases in which
17 I either gave a deposition or testimony.

18 The vast majority, 95, probably, percent or
19 more of these cases do not go to trial, so there is
20 no deposition or testimony. I serve as an expert
21 witness, write an opinion, I often don't even know
22 the outcome at that point.

23 So the Kirshler, I guess is the case, it is
24 ringing a bell, but I could not tell you when that
25 was.

1 BY MS. PLATT:

2 Q. Would you be surprised if you were deposed
3 in 2022 in that case?

4 A. I think I would. I think I would remember
5 that. I would be surprised, yes.

6 Q. And are you aware that Rule 26 of the
7 Federal Rules of Civil Procedure requires experts to
8 provide a list of all cases that they were deposed
9 or testified in in the last four years?

10 MR. BARR: Object to form.

11 A. That's what I thought I had been providing
12 here, correct.

13 Q. Okay. So in the cases that you performed
14 IMEs, do you typically perform the IMEs in person?

15 A. Yes.

16 Q. How often do you perform them over Zoom?

17 A. For IMEs, I do not perform them over Zoom.

18 Q. And why is that?

19 A. I find that I just get a better history and
20 examination in person.

21 Q. How do you usually conduct your preparation
22 for an IME?

23 A. So the majority of my IMEs go through a
24 vendor who connects an attorney with me in regards
25 to a case, the vendor collects medical records,

1 images, sends them to me. I review them, often
2 totally before the IME but not always, sometimes
3 after, and then I will do the IME and write my
4 report based on that.

5 Q. So you're reviewing the records prior to
6 the IME, correct?

7 A. The majority of the time, and the majority
8 of the records. Sometimes things come in at the
9 last minute and I don't have time to do it
10 beforehand.

11 Q. You are not going in blind to these IMEs,
12 correct?

13 A. Correct.

14 Q. Do you have a standard set of questions you
15 ask in IMEs?

16 A. No, not standard because it depends on the
17 claimed injury. These are, by and large, personal
18 injury cases, so it depends other claim of injury,
19 but I generally will want to hear the claimant's
20 description of the injury and the claimant's
21 description of the incident, and then subsequent
22 problems and history after that.

23 Q. Okay. Do you have a standard set of
24 questions you ask in IMEs for Parkinson's disease?

25 A. No.

1 Q. How long do you have your IMEs typically
2 last?

3 A. An hour and a half.

4 Q. Do you typically permit other people to be
5 in the room during the IME?

6 A. Yes.

7 Q. And how do you make that determination of
8 who should be in the room?

9 A. I generally leave that up to the claimant.
10 Sometimes it's a relative, most often it's a nurse
11 observer, and sometimes it's an attorney. I have no
12 objection to someone else being in the room as long
13 as they don't interfere.

14 Q. Do you ever find that the other person in
15 the room does interfere?

16 A. I've had that experience, yeah.

17 Q. Do you ever find the other person in the
18 room causes any sort of distractions?

19 MR. BARR: Object to form.

20 A. Yes, in the sense of the typical case I
21 would consider interfering is when someone -- when I
22 ask a question to the claimant, and the other person
23 who is there present wants to chime in and give an
24 answer.

25 Q. Do you think there's -- have you seen there

1 any potential issues obtaining honest answer when
2 there's other people in the room?

3 MR. BARR: Object to form.

4 A. I think there's that potential, yes.

5 Q. Do you typically perform a differential
6 diagnosis when conducting an IME?

7 A. Yes.

8 Q. And how do you do that?

9 A. Well, the differential diagnosis,
10 obviously, depends on the complaint. So any
11 particular complaint has a reasonable differential
12 diagnosis. And so the history and examination along
13 with the review of the records is meant to winnow
14 out that differential diagnosis and come to a
15 conclusion or an opinion at least that I feel I can
16 support.

17 Q. And how do you typically do that with a
18 Parkinson's disease diagnosis, differential
19 diagnosis?

20 A. So with the Parkinson's disease
21 differential diagnosis, I will definitely want to
22 look at the timeframe, the duration of the symptom
23 complaints, the progression of the symptom
24 complaints, the existence or nonexistence of other
25 signs or symptoms or symptoms on the history, signs

1 on examination, that would make me either suspicious
2 or not suspicious that this is Parkinson's disease.

3 Q. In this litigation, Camp Lejeune
4 mitigation, how many IMEs have you conducted?

5 A. Two.

6 Q. And who were those conducted on?

7 A. Mr. McElhiney and Mr. Peterson.

8 Q. Did you ever conduct an IME on Mr. Sparks?

9 A. No.

10 Q. Ms. Rothschild?

11 A. No.

12 Q. And Mr. Welch?

13 A. No.

14 Q. Have you ever spoken to Ms. Rothschild?

15 A. No.

16 Q. Have you ever spoken to Mr. Sparks?

17 A. No.

18 Q. Have you ever spoken to Mr. Welch?

19 A. No.

20 Q. You performed an IME on Mr. Peterson,
21 correct?

22 A. Correct.

23 Q. When was that examination?

24 A. January 14, 2025.

25 Q. And just for the record, you looked that up

1 in your report?

2 A. Yes, that's correct.

3 Q. You didn't have that memorized off the top
4 of your head?

5 A. I did not.

6 Q. And how was that conducted?

7 A. Via Zoom.

8 Q. Have you ever met with Mr. Peterson
9 virtually or in person at other times?

10 A. No.

11 Q. This was the sole time you spoke with
12 Mr. Peterson?

13 A. Yes.

14 Q. Was anyone else present during this
15 examination?

16 A. His wife.

17 Q. Anyone else?

18 A. No.

19 Q. Was counsel present?

20 A. No.

21 Q. Did Mr. Peter -- sorry. Did Mrs. Peterson
22 answer any questions for Mr. Peterson?

23 A. Yes.

24 Q. How frequently did she answer questions for
25 Mr. Peterson?

1 A. Frequently. He had a voice simulator
2 because his voice is severely, severely affected by
3 his Parkinson's, so he was really largely
4 unintelligible, so she would help with the voice
5 translator to translate what he was saying.

6 Q. And for his voice simulator, he types an
7 answer into the simulator, correct?

8 A. Correct.

9 Q. And then it plays it for you, correct?

10 A. Correct.

11 Q. And did he have any problems with the
12 simulator that day?

13 A. He was having difficulty manipulating that
14 simulator, yeah.

15 Q. What percentage of the questions you asked
16 would you estimate Mrs. Peterson answered?

17 MR. BARR: Object to form.

18 A. Can I clarify that? So when you say she
19 answered, a lot of times she was doing the
20 interpretation because his voice is unintelligible,
21 so she would answer. So she answered interpreting
22 what he said, so she served as an interpreter, I
23 would say, for over 90 percent of the cases -- over
24 90 percent of the questions.

25 Q. Do you think that Mrs. Peterson's presence

1 had an impact on Mr. Peterson's answers?

2 MR. BARR: Object to form.

3 A. No, I didn't sense that.

4 Q. And you said no attorneys were present
5 during this IME; is that correct?

6 A. Not that I'm aware of. You know, it was
7 via Zoom, but there was nobody else except me and
8 them on the link.

9 Q. And you performed an IME of Mr. McElhiney,
10 correct?

11 A. Correct.

12 Q. And when was that?

13 A. January 10, 2025.

14 Q. And, again, you looked that up in the
15 report on Mr. McElhiney?

16 A. Yes, that's correct.

17 Q. And how long did that IME last?

18 A. Also about 45 minutes.

19 Q. And was it conducted via Zoom?

20 A. Yes.

21 Q. Was anyone else present?

22 A. No.

23 Q. Mrs. McElhiney was not present?

24 A. No.

25 Q. No attorneys were present?

1 A. No.

2 Q. I want to go back to -- we were speaking
3 generally about your IME practice as an expert, not
4 specifically with Mr. Peterson or Mr. McElhiney.

5 Do you remember that?

6 A. Yes.

7 Q. And you talked about you do a differential
8 diagnosis, correct?

9 A. Yes.

10 Q. And you look at things like the timeframe,
11 the progression of symptoms; is that correct?

12 A. Yes.

13 Q. Do you consider risk factors in doing that
14 differential diagnosis?

15 A. Yes.

16 Q. And how do you consider risk factors when
17 conducting the IME?

18 MR. BARR: Object to form.

19 Counsel, can I ask for a -- can we
20 do it off the record? I think there's
21 going to be a confusion.

22 MS. PLATT: We can do it on the
23 record.

24 MR. BARR: You have been using
25 differential diagnosis in terms of

1 diagnosis of the disease, and now you
2 have moved to cause of the disease when
3 you talk about risk factors. Can you
4 clarify what you're talking about when
5 you talk about a differential diagnosis?

6 MS. PLATT: If Dr. Barbano has
7 questions about the questions I ask,
8 he's welcome to ask for clarification.

9 MR. BARR: I would ask you, Doctor,
10 when you're answering that question, be
11 clear as to whether or not you are
12 talking about the diagnosis of disease
13 or a determination of causation so the
14 record is clear.

15 THE WITNESS: Okay.

16 BY MS. PLATT:

17 Q. So let's take a couple of steps back. Why
18 don't you give an overall description of how you do
19 a differential diagnosis during an IME?

20 A. Okay. So an overall -- can I give you an
21 example?

22 Q. Sure.

23 A. So an overall example, if a claimant is
24 claiming migraines as a result of an injury, review
25 of the medical records would indicate whether that

1 person had migraines prior, risk factors might
2 include the fact that the claimant may be a -- let's
3 say a young woman in the usual typical age for
4 developing migraines, a risk factor might be a
5 family history.

6 So the -- I will look at the medical
7 records again prior, does the person have prior
8 headaches, and then the history and exam will bring
9 out a description of the claimed symptom, in this
10 case, headaches. So is the symptom consistent with
11 a migraine or is it consistent with one of the other
12 type of headaches, and then I will do an
13 examination, and is the examination consistent with
14 that.

15 So based on reviewing records, history, and
16 the review of records would include such things as
17 risk factors, pre-existing issues, history. And
18 then, upon examination, I will put together and come
19 to a conclusion regarding the differential.

20 Is that fair?

21 Q. Yes.

22 A. Okay.

23 Q. So in a Parkinson's specific differential
24 diagnosis --

25 A. Yes.

1 Q. -- during the IME, would you consider risk
2 factors?

3 A. If I -- yes, I would, yes.

4 Q. And how do you do that in that IME
5 instance?

6 A. So if the risk factors exist in the medical
7 records, I will take those as being relatively
8 accurate, maybe they need clarification, maybe not.
9 If the risk factors don't exist in the medical
10 records or are unmentioned, I might ask about those
11 risk factors, and you are talking specifically about
12 Parkinson's disease?

13 Q. Correct.

14 A. And -- I will stop there. Was that your
15 question?

16 Q. Yes. Thank you.

17 Do you consider -- in a differential
18 diagnosis during an IME for Parkinson's disease, do
19 you consider the cause of Parkinson's disease?

20 A. If it's pertinent, yes.

21 Q. And how do you decide when it's pertinent?

22 A. Well, if the IME was -- if the claim was
23 one of causality, then yes, I would determine that.

24 So I can clarify maybe. So some IMEs that
25 I may do may involve a personal injury in someone

1 who has Parkinson's disease, and then the real issue
2 that I'm asked to address. So when I do an IME, I'm
3 generally asked to address a particular issue. Was
4 this person's Parkinson's disease made worse? Was
5 their disability made worse by the event in
6 question? So in that sort of situation, the
7 causality of Parkinson's disease generally does not
8 come into play.

9 Q. So if the litigation does not involve
10 causality, you do not consider causality in a
11 differential diagnosis during an IME for Parkinson's
12 disease; is that correct?

13 A. That's generally correct, yes.

14 Q. And for Mr. Peterson and Mr. McElhiney, why
15 did you examine them over zoom instead of your
16 typical practice of examining individuals in person?

17 A. One lived in Kentucky and the other lives
18 in -- you know, I forget actually where they lived.
19 For practical reasons.

20 Q. Were you willing to travel to them?

21 MR. BARR: Object to form.

22 A. I would say neither be willing or
23 unwilling. It would really depend on my
24 availability and time , et cetera.

25 Q. Did you raise with plaintiffs' counsel that

1 you typically perform IMEs in person?

2 MR. BARR: Object to form. I would
3 instruct him not to answer.

4 Q. Are you going to follow that instruction?

5 A. I'm going to follow his instructions.

6 Q. In your past expert work, have you ever
7 done a differential diagnosis for Parkinson's
8 disease during an IME that you included causation?

9 A. No.

10 Q. I'm going to go ahead and enter Exhibit
11 Number 9. I apologize, these are not stapled, but I
12 think on break we can probably find a stapler, but
13 both pages are the exhibit.

14 (Exhibit Number 9 was marked for
15 identification.)

16 A. Sure.

17 MR. BARR: Just so it's clear,
18 Exhibit 9 is the notes for McElhiney and
19 Peterson?

20 MS. PLATT: Yes, it is
21 Bates-stamped
22 CL_PLG-Expert_Barbano_0000000002 and 1.
23 Sorry. 1 and 2.

24 BY MS. PLATT:

25 Q. Do you recognize these documents?

1 A. Yes.

2 Q. What are these?

3 A. These are my handwritten notes that I took
4 during my Zoom meetings with the two plaintiffs.

5 Q. And you produced these in response to the
6 subpoena, correct?

7 A. Correct.

8 Q. I want to start with the first page --
9 actually, I want to start with the second page that
10 ends in 2.

11 A. Okay.

12 Q. And those are your notes during
13 Mr. McElhiney's IME, correct?

14 A. Correct.

15 Q. Did you take any other notes beyond this
16 one sheet of paper?

17 A. No.

18 Q. And at the top of the document, it states,
19 "Interview McElhiney," correct?

20 A. Correct.

21 Q. And directly underneath, it says, "Prep,"
22 and then there are some numbers. What are those
23 numbers?

24 A. Times.

25 Q. And what do those times indicate?

1 A. It means that from 10:10 in the morning to
2 10:20 in the morning, I thought about what specific
3 information I wanted to get from Mr. McElhiney
4 during the interview.

5 Q. Did you review any records to prep for this
6 interview?

7 A. Yes, by the time I had done these
8 interviews, I had gone through all of the person's
9 medical records, all of his medical records.

10 Q. Beyond these ten minutes, 10:10 to 10:20,
11 did you do any other prep for this IME?

12 A. Not for this particular interview, no.

13 Q. And Dr. Barbano, you have referred to this
14 as an interview. Is that a distinction to you from
15 an IME?

16 A. I would say no. I would say no. Yeah, I
17 would just leave it at no. I sometimes use that
18 interchangeably.

19 Q. So when you were working as an expert in
20 other litigations and you are deposed, do you refer
21 to IMEs as interviews?

22 A. No, I generally refer to them as IMEs.

23 Q. Okay. So why did you write "Interview
24 McElhiney" at the top of this document?

25 A. You know, that's a good question. I'm not

1 sure I can give you an answer except that I wasn't
2 sure whether it actually qualified as an IME from a
3 technically legal point of view, so to me it was as
4 generic as I could put it.

5 Q. And what was your hesitation that it didn't
6 qualify as an IME under a legal point of view?

7 MR. BARR: Object to form. Calls
8 for a legal conclusion.

9 A. I had never been involved in a case with
10 the government, so I didn't know whether there were
11 different rules or not.

12 Q. Did you conduct this interview differently
13 than other IMEs that you performed as an expert?

14 A. Not really, but I will clarify that. Just
15 that there was information -- I had the opportunity
16 prior to this to really thoroughly review this
17 person's medical records. So there were specific
18 questions I wanted to get to to help formulate my
19 opinion that in other IME situations I might want to
20 review differently. For example, the majority of
21 IMEs that I do as an expert witness involve
22 injuries, and so I will generally want to hear the
23 description of a particular injury.

24 In this case , I was not -- there -- I had
25 already read the depositions, I already had that

1 information that I felt I needed to know and I
2 wanted to use this time more productively.

3 Q. So is it fair to say that you saw this as a
4 time to ask questions to clarify the records?

5 A. Correct.

6 Q. And the third line --

7 A. On which one?

8 Q. On the page ending in 2.

9 A. Okay.

10 Q. It states, "Any further NOH." Is that
11 correct?

12 A. Yes.

13 Q. And also, if at any time I misstate what
14 you wrote here, please let me know. I'm reading
15 your handwriting and trying to do my best.

16 A. I will try to do my best as well.

17 Q. What does that statement mean?

18 A. Has he had any further episodes of what's
19 called neurogenic orthostatic hypotension, which is
20 NOH.

21 Q. And what is NOH?

22 A. NOH is disruption of the autonomic nervous
23 system that one sees in Parkinsonisms, particularly
24 Parkinson's disease and multisystem atrophy, which
25 is a Parkinsonism that causes a person to have their

1 blood pressure drop when they stand up.

2 Q. And why was this important for you to ask
3 about?

4 A. To differentiate Parkinson's disease from
5 multisystem atrophy.

6 Q. Going into this interview with
7 Mr. McElhiney, did you have a question as to whether
8 he was suffering from multisystem atrophy?

9 A. I did not believe so going into there, but
10 I wanted to be sure. I wanted to keep possibilities
11 on the differential diagnosis that I wanted to
12 clarify and feel confident in my opinion.

13 Q. And then, below that, it says, "Tell me
14 about your prior concussions"; is that correct?

15 A. Correct.

16 Q. Were you aware of Mr. McElhiney's head
17 injuries prior to the IME?

18 MR. BARR: Object to form.

19 A. Yes.

20 Q. How did you become aware of them?

21 A. Through the medical records.

22 Q. And you asked Mr. McElhiney about his prior
23 concussions because head injury is a risk factor for
24 Parkinson's disease, correct?

25 MR. BARR: Object to form.

1 A. Brain injury is a risk factor.

2 Q. So let me clarify. You asked Mr. McElhiney
3 about his prior concussions because brain injury is
4 a risk factor for Parkinson's disease, correct?

5 MR. BARR: Object to form.

6 A. Yes.

7 Q. And where do you draw the line between a
8 head injury and a brain injury?

9 A. A traumatic brain injury involves some very
10 cardinal symptoms including loss of consciousness,
11 alteration of consciousness, and posttraumatic
12 amnesia.

13 Q. Can it be possible that one factor that you
14 just stated is present for a brain injury?

15 MR. BARR: Object to form.

16 A. So it's a continuum. As in any injury,
17 there's a continuum of severity and it is possible
18 that one of those factors could be consistent with a
19 mild -- in that case, it would be very mild
20 traumatic brain injury, but not diagnostic. So
21 consistent with as opposed to, but not necessarily
22 diagnostic of.

23 Q. So it's possible for -- sorry. Let me
24 rephrase.

25 It's important to ask an individual about

1 head injuries to see if they rise to the level of a
2 brain injury, correct?

3 A. Yeah. In general, yes.

4 Q. And then, a few lines down, about halfway
5 down on the page, it says, "Farm 155 acres," and
6 then below that, "No pesticides"; is that correct?

7 A. Correct.

8 Q. And is this a reference to Mr. McElhiney's
9 upbringing on a farm?

10 A. Yes.

11 Q. Were you aware that he grew up on a farm
12 prior to the IME?

13 A. Yes.

14 Q. How did you become aware of that?

15 A. Through the deposition.

16 Q. And you asked Mr. McElhiney about his time
17 on a farm because exposure to pesticides is a risk
18 factor for Parkinson's disease, correct?

19 MR. BARR: Object to form.

20 A. Yes.

21 Q. Did you ask Mr. McElhiney if he was exposed
22 to pesticides through any other means beyond his
23 time on a farm?

24 A. Yes.

25 Q. And did you write that down?

1 A. No.

2 Q. What was his answer to that?

3 A. No.

4 Q. But you did not find that to be something
5 you should write in your notes?

6 MR. BARR: Object to form.

7 Argumentative.

8 A. No.

9 Q. Did you ask Mr. McElhiney whether he was
10 exposed to TCE, PCE, or other water solvents from
11 drinking water at Camp Lejeune?

12 MR. BARR: Object to form.

13 A. Yes.

14 Q. And what was his answer to that?

15 A. Not that he was aware of.

16 Q. And did you write that down on these notes?

17 A. No.

18 Q. Did you ask Mr. McElhiney about any other
19 risk factors he may have had for developing
20 Parkinson's disease?

21 MR. BARR: Object to form.

22 A. I don't believe so.

23 Q. Would you say you performed a differential
24 diagnosis during the interview of Mr. McElhiney?

25 A. Yes.

1 Q. But you didn't ask about any other risk
2 factors he may have had, correct?

3 MR. BARR: Object to form.

4 A. You know, that's a relatively broad
5 statement. Any that would help me with a
6 differential diagnosis.

7 Q. And isn't it true that all risk factors
8 would help you with a differential diagnosis?

9 MR. BARR: Object to form.

10 A. Ones that were particularly pertinent.

11 Q. How do you decide which risk factors are
12 particularly pertinent?

13 A. Those that, in my opinion, can have a
14 significant effect on the probability of causality.

15 Q. And what do you base that judgment on?

16 A. Experience and the literature.

17 Q. Mr. McElhiney has previously been diagnosed
18 with PTSD, correct?

19 A. Yes, that's correct.

20 Q. Did you -- you did not ask about
21 Mr. McElhiney's PTSD according to these notes; is
22 that correct?

23 A. That's correct.

24 Q. PTSD can be a risk factor for Parkinson's
25 disease, correct?

1 A. Let me think about how I want to answer
2 that because, again, I think risk factors are used
3 frequently in the medical literature in ways that
4 don't necessarily reflect my opinion. And by that,
5 I mean, so PTSD is more common in the people who
6 have Parkinson's disease, or I should say that
7 people with Parkinson's disease more commonly have
8 evidence of PTSD.

9 So technically, one could say that's a risk
10 factor, but if you read through the literature, it's
11 likely that both people with PTSD are more likely
12 also to develop Parkinson's because people with --
13 there's an increased frequency of people with PTSD
14 who have certain genetic dopaminergic
15 predispositions.

16 So I'm trying to avoid using the word "risk
17 factor" if I don't believe that it's necessarily
18 causal. So, you know, I'm not trying to be cagey,
19 but I just think that we need to be clear about the
20 way we are using those terms for when we get to what
21 I'm sure you are going to ask me is my opinion
22 regarding causality.

23 So people who have certain genetic
24 backgrounds are probably more likely to develop
25 PTSD, and they are probably more likely to develop

1 PD. So there will be an association. The same with
2 melanoma, let's just say. But I wouldn't want to
3 lead with the impression that the PTSD, in my
4 opinion, caused his Parkinson's disease, just as I
5 wouldn't want to leave anyone with the impression
6 that having a melanoma caused someone's Parkinson's
7 disease.

8 So I think there's a biological commonality
9 between the two, so I just want to make sure when we
10 talk, that we're clear on what I mean by that.

11 Q. So something can be a risk factor, but does
12 not cause Parkinson's disease?

13 A. In my opinion, yes, there are lots of
14 things in the literature that are listed as such.

15 Q. Okay. Mr. McElhiney has a history of B-12
16 deficiency, correct?

17 A. Correct.

18 Q. And according to these notes, you did not
19 ask about Mr. McElhiney's B-12 deficiency?

20 A. Correct.

21 Q. But B-12 can be a risk factor for
22 Parkinson's disease, correct?

23 MR. BARR: Object to form.

24 A. Again, just trying to clarify that. No, I
25 do not believe that B-12 deficiency causes -- in a

1 sense of when we talk about a risk factor causes
2 Parkinson's disease. There's -- B-12 deficiency can
3 be a marker. You know, B-12 deficiency can be a
4 marker of gut abnormalities, which can be related to
5 developing Parkinson's disease. B-12 deficiency can
6 also cause people to be less active and decrease in
7 physical activity can lead to more exacerbating and
8 a sooner diagnosis of Parkinson's disease.

9 So I'm not ready to really say that B-12 is
10 a risk factor. Although that term may be used in
11 the literature, I'm not ready to say that it's a
12 causal factor. So I'm just trying to be clear about
13 what I'm saying with risk versus causal.

14 Q. But we just discussed that a risk factor is
15 not necessarily causal?

16 A. Correct.

17 Q. So B-12 deficiency could be a risk factor
18 and not necessarily causal, correct?

19 A. They can be an association. I would
20 classify it more as an association as opposed to a
21 risk factor. And I realize that that term, risk
22 factor, may be in the literature. In fact I have
23 reviewed that for this case, but I just don't find
24 that literature really convincing that there's any
25 true causal underlying connection.

1 Q. On the top right of Exhibit 9, page ending
2 in 2 --

3 A. Okay.

4 Q. -- you write 2016. Do you see that?

5 A. Yes.

6 Q. What does that represent?

7 A. Let me see if I can figure that out. Oh,
8 2016, that's in reference to about the approximate
9 time when his wife started noting that he was having
10 symptoms of what we would call REM behavior
11 disorder, which is, as you can see, his wife
12 describing punching her sleep walking. That's in
13 reference to those symptoms.

14 Q. And this is based off of Mr. McElhiney's
15 answer, correct?

16 A. Correct.

17 Q. Mrs. McElhiney was not present during this
18 IME?

19 A. Correct.

20 Q. And if you see at the bottom of the page,
21 it appears that you are discussing some of the
22 symptoms of Mr. McElhiney; is that correct?

23 A. The signs.

24 Q. You are discussing the signs of Parkinson's
25 disease that Mr. McElhiney had?

1 A. Yes.

2 Q. Can you read some of these notes at the
3 bottom of the page?

4 A. Sure.

5 MR. BARR: Can you be specific as
6 to where you are referring to in the
7 bottom of the page?

8 Q. I'm starting on the left-hand side, it
9 looks like there's an R.

10 A. Yes.

11 Q. I have a hard time reading this, so that's
12 why I'm asking for you to read it.

13 A. I apologize for my scribble, but yes, I can
14 interpret it that for you. You want me to take it
15 from that R downward and you can stop me whenever,
16 and I'll just interpret what I wrote?

17 Q. Can you start at the PE a little bit
18 higher?

19 A. Sure.

20 Q. Great.

21 A. PE -- I wish I would have brought my
22 readers.

23 MR. BARR: What's your
24 prescription? I have a 1.5.

25 THE WITNESS: That will do. Can I

1 borrow that?

2 MR. BARR: Now I can't read it.

3 THE WITNESS: I'm sorry.

4 A. PE, oh, I got it. Marks from the base. He
5 was -- and this is actually in my -- thank you for
6 the glasses -- in my report. He had marks on his
7 scalp for the cranial brace that was put on in
8 preparation for his DBS, so the arrow points to DBS,
9 which stands for deep brain stimulation, that was
10 planned for January 14th. So what I write there is
11 "DBS 1/14, battery pack, planned on putting in on
12 1/21."

13 The next line says, "Last medication 12,"
14 and that would have been about two hours prior to
15 the examination. That's important. I think I can
16 take it from here. Thank you. That's important
17 because that affects the physical examination.

18 I gave him his glasses back before I read
19 the next thing. Thank you. I apologize. Side
20 effects -- so next to where it says battery -- tell
21 me if you want me to stop, I will just keep going.

22 Q. No, please continue.

23 A. Okay. It says, "Battery pack 121," and
24 then you see a slash. That's just to separate the
25 page a little. "SE" stands for side effects, and

1 this is the side effects of his medication, which he
2 included as nausea, open quote, closed quote,
3 feeling awful, and tired.

4 The next page -- the next line says,
5 "Head." That refers me back to the scars or the
6 preparation marks for his brace, then it says,
7 "Tremor, bilateral hands." And then, "Struggles,"
8 that's struggles to use his hands. "Right-handed."

9 I will just go down the left side, and then
10 I will go to the other.

11 Q. Okay.

12 A. "Right-handed --" right -- RAM stands for
13 rapid alternating movements, and they were very
14 decreased, two arrows down. Fingers in the rapid
15 alternating movements showed a decrement, which is a
16 progressively smaller diminution of size and
17 movement, amplitude. The hand movements did not
18 show that decrement.

19 "R" stands for right pronation/supination,
20 that is moving the hand palm up, palm down. It was
21 slower than the left. The right toe taps, that's
22 T-O-E, were very slow. The left toe taps were also
23 slow, but not as slow as the right. Leg agility was
24 also slowed, and that stands for bilaterally, that
25 means on both sides.

1 The -- on the right side of that lower half
2 are some of the symptoms that I was asking about.
3 In one of the first -- that first line says
4 diminished syncope, that's in relation to any
5 further neurogenic orthostatic hypotension.

6 Last year, left side started that, it
7 refers to the Parkinsonian symptoms, the right leg
8 tremor, he reports is worse when he is anxious, or
9 concentrating can sometimes decrease the tremor.

10 His right hand, he complained of decreased
11 grip, difficulty picking up items, manipulating
12 buttons and zippers. He reports that he was
13 tripping but then received an AFO, which stands for
14 ankle/foot orthotic that he uses when he is walking,
15 and he uses a walking stick. He has had decreased
16 back pain over the last six months, and he has not
17 noticed any dyskinesias.

18 I'm going to hold on to these.

19 MR. BARR: I have multiple back up
20 pairs, so you can hold on to those.

21 Q. And you conducted this via Zoom, correct?

22 A. Yes, correct.

23 Q. So when you were reviewing or evaluating
24 Mr. McElhiney's speed of movement, it was via Zoom,
25 correct?

1 A. Yes, correct.

2 Q. And this IME was conducted prior to
3 Mr. McElhiney's DBS procedure, correct?

4 A. Correct.

5 Q. And as you noted, he was planned to have
6 that in January 2025, correct?

7 A. Correct.

8 Q. Have you reviewed any medical records
9 regarding Mr. McElhiney's reaction to the DBS
10 procedure?

11 A. Some -- I did get an update on medical
12 records. I think that was in one of the addenda.

13 Q. Okay.

14 A. And -- I'm sorry. Go ahead.

15 Q. I really want to go ahead and mark the next
16 exhibit, it will be Exhibit Number 10.

17 MR. BARR: Are we going to come
18 back to 9?

19 MS. PLATT: Yes.

20 MR. BARR: Okay.

21 (Exhibit Number 10 was marked for
22 identification.)

23 BY MS. PLATT:

24 Q. I handed you what is Exhibit Number 10, and
25 this is some of Mr. McElhiney's medical records,

1 correct?

2 A. Correct.

3 Q. Have you reviewed these before?

4 A. Yes.

5 Q. Okay. I want to -- you would have reviewed
6 these after the IME, correct?

7 A. Correct.

8 Q. And I want you to turn to the first page,
9 which ends in 448.

10 A. Okay.

11 Q. These are the office notes with Dr. Daniel
12 Sherwood, correct?

13 A. Correct.

14 MR. MICELI: This is just an
15 excerpt of this, right?

16 MS. PLATT: I mean, the Bates
17 numbers are part of here, so this is
18 beginning on the first page of this --

19 MR. BARR: I think we are just
20 trying to make sure there's not a
21 representation on the record that this
22 is the complete Sherwood medical
23 records.

24 MS. PLATT: I will represent on the
25 record that this is from 448 to 484 --

1 MR. BARR: Okay.

2 MS. PLATT: -- of the medical
3 records that were produced.

4 MR. BARR: Because some of these
5 are Hufnagel and -- go ahead.

6 BY MS. PLATT:

7 Q. And we are just looking at this first page,
8 which ends in 448. Dr. Sherwood is one of
9 Mr. McElhiney's doctors, correct?

10 A. Correct, that's my understanding.

11 Q. And this visit is from March 6, 2025,
12 correct?

13 A. Correct.

14 Q. So this is less than two months after his
15 DBS, surgery, correct?

16 A. Correct.

17 Q. And the first paragraph reads, directly
18 under history of present illness, do you see that
19 paragraph?

20 A. Yes.

21 Q. "Gary, a patient with a history of
22 Parkinson's disease, presents for a follow-up visit
23 after undergoing deep brain stimulation, DBS
24 surgery. The patient reports a significant
25 improvement in his symptoms following the surgery,

1 which was performed in three stages. Despite the
2 discomfort and swelling associated with the recovery
3 process, the patient describes the outcome as
4 astronomical and feels the procedure has restored
5 much of his dignity."

6 Did I read that correctly?

7 A. Yes.

8 Q. And then, jumping down to the third
9 paragraph under that heading, it states, "The
10 patient's medication regimen has been adjusted
11 following his DBS surgery. He is currently in the
12 process of de-escalating his Sinemet dosage with a
13 goal of reducing the frequency to three times a day.
14 He has also discontinued metoprolol, a beta blocker,
15 as per Vanderbilt's recommendation."

16 Did I read that correctly?

17 A. Yes.

18 Q. And then, turning to the next page, which
19 ends in 449, do you see the heading, "Neurological"?

20 A. Yes.

21 Q. And I just want to look at the comments.
22 It states, "Comments: Parkinsonism facial
23 expression is no longer present! No tremor, no
24 cogwheeling, no rigidity, slightly wide-based gait."

25 Did I read that correctly?

1 A. Yes.

2 Q. So it seems from these comments to indicate
3 that Mr. McElhiney's DBS surgery was very
4 successful; is that correct?

5 MR. BARR: Object to form.

6 A. I would say, yes.

7 Q. And they also indicate that many of the
8 symptoms you reported during Mr. McElhiney's IME has
9 since subsided because of the DBS surgery, correct?

10 MR. BARR: Object to form.

11 A. Well, there's -- I would say yes, that it
12 is from the DBS surgery, but if you noted in my
13 note, I wrote the time of his medication. So what's
14 always important to remember when you are examining
15 patients with Parkinson's is that they have
16 fluctuations during the day, but during this
17 examination at this time, I would agree that, yes,
18 it seems that his symptoms had improved on that day
19 at that time, and more likely than not from the DBS.

20 Q. Would you agree that a patient's
21 improvements from DBS surgery can last at least
22 15 years?

23 A. Yes.

24 Q. Have you met with Mr. McElhiney either
25 virtually or in person since DBS implementation?

1 A. No.

2 Q. Do you think it would be relevant?

3 MR. BARR: Object to form.

4 A. It would depend on the -- it would depend
5 on what I was being asked to do.

6 Q. With respect to your expert report on
7 Mr. McElhiney, do you think it would be relevant to
8 perform another IME on Mr. McElhiney?

9 MR. BARR: Object to form.

10 A. Not on a causality basis, on a potential
11 current -- his current impact of Parkinson's, yes,
12 that could be relevant. As far as progression of
13 the disease, no, it would not be relevant.

14 I will explain, because DBS is excellent at
15 helping the symptoms of the disorder, but it is not
16 curative and doesn't change the underlying disease
17 itself.

18 Q. Would it be relevant to your opinion as to
19 his care in the immediate future?

20 A. Yes.

21 Q. I want to go back to Exhibit Number 9,
22 that's the notes on your IMEs. I want to turn to
23 the first page, which ends in 01. And turning to
24 that page, at the very top, it says, "Zoom with
25 Peterson"; is that correct?

1 A. Correct.

2 Q. So that -- these are your notes from your
3 IME with Mr. Peterson, correct?

4 A. Correct.

5 Q. Would you consider this meeting with
6 Mr. Peterson an IME?

7 A. Yes, in broad terms.

8 Q. And what do you mean, "in broad terms"?

9 A. Again, I had put Zoom to just make it clear
10 I wasn't sure whether technically this served as an
11 IME, but I would consider this an IME.

12 Q. In the top right-hand side of this
13 document, you wrote a negative sign in a circle, and
14 then PD, what does that mean?

15 A. No family history of Parkinson's disease,
16 and below that it lists his relatives that --

17 Q. And then, on the left-hand side, you have
18 2:00 to 2:40, correct?

19 A. Correct.

20 Q. And is that the time that the meeting with
21 Mr. Peterson lasted?

22 A. Yes.

23 Q. But unlike your notes on Mr. McElhiney, you
24 don't have any prep time listed here; is that
25 correct?

1 A. Correct.

2 Q. Did you not prepare for this?

3 A. No, I prepared. In the way that I had been
4 involved with these two cases, Mr. McElhiney came
5 first, and Mr. Peterson came second. So when it
6 came time to do my Zoom with Mr. McElhiney, I had
7 not looked at those records for a number of weeks or
8 months, so that preparation was refreshing my memory
9 as to what I wanted to get out of this time with the
10 claimant.

11 For Mr. Peterson, I had done him more
12 recently, so his medical records were fresh in my
13 mind, so I didn't need to go back and review those.

14 Q. And you previously testified that your
15 typical IME as an expert lasts for an hour to an
16 hour and a half, correct?

17 A. Correct.

18 Q. Why was your IME with Mr. Peterson so much
19 shorter than your average IME?

20 A. It was asking a different question, and I
21 also had ancillary information that made a longer
22 IME unnecessary, particularly the depositions. So
23 during depositions, a lot of information came out
24 that I might normally ask during an IME.

25 Q. And with Mr. McElhiney, your IME lasted

1 from 3:00 to 3:40, correct?

2 A. Correct.

3 Q. And why was that IME so much shorter than
4 your typical IME?

5 A. Same. I had extensive records reviewed and
6 it was a -- in my mind, a fairly straightforward IME
7 that I needed to get the information to answer.

8 Q. Do you have any limitations on the amount
9 of time you could use for an IME in this case?

10 A. No.

11 Q. So if you needed to take more than
12 40 minutes with Mr. Peterson, you could have?

13 A. Yes, as far as I know, yes.

14 Q. And then, about four lines down, you have
15 "no," an arrow, and prior depression. Do you see
16 that?

17 A. Yes.

18 Q. What does that mean?

19 A. The medical records indicated that he had
20 developed depression in the relatively immediate
21 time before being diagnosed with Parkinson's
22 disease. And that was a question that I asked
23 whether he ever had depression prior to that onset.
24 In other words, as a younger person in his 20s, or
25 30s, or 40s, and his answer was no.

1 Q. When was Mr. Peterson's depression
2 diagnosed?

3 A. I would have to refer to my record, but I
4 believe it was a year or two prior to his diagnosis
5 of Parkinson's, but I'm sure I have that in here if
6 we can take a second.

7 Q. Can we agree that it was in the 1990s?

8 A. Sure. I mean, I will agree with you on
9 that, sure.

10 Q. Okay. And did you ask about his treatment
11 at the time of diagnosis for depression?

12 A. No.

13 Q. In 2004, Mr. Peterson was admitted to a
14 behavioral inpatient health treatment center,
15 correct?

16 A. Correct.

17 Q. Did you ask about this incident?

18 A. No.

19 Q. You did not feel it was relevant to your
20 IME of Mr. Peterson?

21 MR. BARR: Object to form.

22 A. I think it's very relevant to his case, but
23 I think the medical records were very clear to me as
24 to the cause of his admission.

25 Q. Below that you wrote, "Concussion while

1 playing football." Do you see that?

2 A. Yes.

3 Q. And then, colon, and in quotation marks,
4 "He refutes"; is that correct?

5 A. Let me just find that for one second. Yes.

6 Q. What does "he refutes" mean?

7 A. He denied -- he felt he didn't have a
8 concussion. In other words, I asked him whether he
9 had -- about the concussion or about the incident
10 while playing football, and I said, "You were
11 diagnosed with having a concussion," and he said,
12 "No, I wasn't."

13 Q. But his medical records indicate he had a
14 concussion, correct?

15 A. I think so, yes.

16 Q. And his medical records indicate that he
17 lost consciousness, correct?

18 A. Correct.

19 Q. But he denies that this happened, correct?

20 MR. BARR: Object to form.

21 A. I wouldn't say he denied that it happened.
22 I think he refuted the diagnosis of a concussion
23 because he was able to tell me what happened
24 actually quite clearly.

25 Q. And then directly below "he refutes," it

1 says, "Walked to sick bay"; is that correct?

2 A. Correct.

3 Q. And I want to go to your report on
4 Mr. Peterson, which is Exhibit Number 2, I believe.
5 Sorry. Exhibit Number 3.

6 A. Okay.

7 Q. And if you turn to Page 6.

8 A. Okay.

9 Q. Actually, let's start on Page 5.

10 A. All right.

11 Q. The heading, "E-Zoom interview with Gary
12 McElhiney." I'm looking at the wrong report.
13 Sorry.

14 A. That's Exhibit 3, yes.

15 Q. Sorry.

16 A. Exhibit 2.

17 Q. Exhibit 2?

18 A. Yes.

19 Q. Is your report on Mr. Peterson?

20 A. Yes.

21 Q. On Page 5, it says, "Zoom interview and CNN
22 News interview "; is that correct?

23 A. Let me get there. Yes.

24 Q. So this is your section of the report
25 discussing the IME of Mr. Peterson, correct?

1 A. Yes, that's correct.

2 Q. And if you turn to Page 6, the third full
3 paragraph begins, "Mr. Peterson"?

4 A. Yes.

5 Q. It states, "Mr. Peterson is able to give
6 details regarding the head injury he had while
7 playing football at 26 years old during officers
8 training. He reports he hit his head against a
9 cinder block wall. He reports that he blacked out
10 for 15 to 30 seconds, but immediately afterwards, he
11 walked to the sick bay where he was instructed to
12 drive himself 10 miles to the hospital and back."

13 Did I read that correctly?

14 A. Yes.

15 Q. And then, it goes on to say, "He reports he
16 had no problems doing this and had no headaches
17 after the incident. This indicates that head injury
18 was not substantial and not a contributing factor in
19 Mr. Peterson's development of Parkinson's disease,"
20 correct?

21 A. Correct.

22 Q. And you previously testified that loss of
23 consciousness is one of the indicators that a head
24 injury, in fact, rises to the level of a brain
25 injury?

1 A. Correct.

2 Q. So why did you determine that
3 Mr. Peterson's loss of consciousness after a head
4 injury did not rise to the level of a brain injury
5 such that you would take it into consideration in
6 this report?

7 A. Because in my opinion, it was not
8 substantial and, you know, this is a person who has
9 no subsequent effects of a head injury, it's not
10 like they were -- had headaches for weeks. It's a
11 marker in my mind for the severity of the head
12 injury -- or brain injury. See, even I do that.

13 So there's a continuum of brain injuries
14 and, you know, in my opinion, when someone has a
15 brief loss of consciousness, but they don't have
16 posttraumatic amnesia that we spoke about, confusion
17 afterwards, those are markers for relatively mild
18 brain injuries.

19 As the severity increases, people develop
20 after concussion or postconcussion symptoms.
21 Frequently, you know, people might say oh, I had
22 headaches for weeks, I couldn't go back to work, I
23 had trouble driving, all of these other ancillary
24 symptoms that are markers for the severity of that
25 injury.

1 The fact that this man here, Mr. Peterson,
2 could drive himself, get back, go on with his life,
3 go on to do his other activities, to me, is a marker
4 of the relative minimal contributing factor that a
5 brain injury such as that would be in his case.

6 Q. But you were not present during this injury
7 to evaluate Mr. Peterson, correct?

8 A. That's correct.

9 Q. And so your evaluation of this injury is
10 based off of his description of it 60 years later,
11 correct?

12 A. And the medical records.

13 Q. And the medical records are based off of
14 his description of the head injury, correct?

15 MR. BARR: Object to form.

16 THE WITNESS: I can answer?

17 MR. BARR: Yes.

18 A. I would have to look at that. I believe
19 that I had the medical records from that actual
20 event, but I would have to -- as I sit here, I would
21 have to review that to see whether I did or not. I
22 know I did for Mr. McElhiney and I thought I did for
23 Mr. Peterson, but I'm not positive.

24 BY MS. PLATT:

25 Q. And going back to Exhibit Number 9, the

1 page ending with 1 as the Bates stamp.

2 A. Okay.

3 Q. About the middle of the page, on the
4 right-hand side, it says, "8/11/23, CNN interview."

5 A. Yes.

6 Q. What does that mean?

7 A. He was interviewed by CNN and there was a
8 videotape of that, and that was something that I
9 looked at.

10 Q. Did counsel provide you with that
11 interview?

12 A. You know, as I sit here today, I don't know
13 whether counsel provided that or Mr. Peterson had it
14 for me. I just don't recall where I saw that, but I
15 remember looking at that CNN interview.

16 Q. And is it your standard practice when
17 conducting IMEs to do independent research of the
18 patient?

19 A. If -- yeah, if there is pertinent stuff
20 available, sure. So, you know, if there's, for
21 example, a surveillance video of someone slipping
22 and falling in a parking lot and that's the IME I'm
23 doing, sure, I want to review that.

24 Q. But I think that would be a slightly
25 different situation, right? That would be something

1 that's at issue in the case. In this instance --
2 actually, let me stop there.

3 A. Okay.

4 Q. So that would be something that's at issue
5 in the case, correct?

6 MR. BARR: Object to form.

7 A. In what way? Maybe you can help me
8 understand what you are asking.

9 Q. Reviewing a video of a slip and fall in a
10 slip-and-fall case would be at issue in the case,
11 correct?

12 A. Correct.

13 Q. And in this case, you reviewed a CNN
14 interview that is beyond what was produced in this
15 case, correct?

16 MR. BARR: Object to form.

17 A. Yes, if I can answer, I can explain.

18 MR. BARR: You can answer.

19 A. Yeah, so this is -- when you are dealing
20 with -- you asked before about a differential
21 diagnosis, you know, did I include other
22 differential diagnoses in coming to the conclusion
23 that Mr. Peterson has Parkinson's. This is part of
24 that.

25 Seeing how people are, there are signs on

1 examination or, in this case, an interview gives me
2 two bits of information that I think are relevant.
3 One is did he have signs on that interview that were
4 consistent with Parkinson's disease.

5 And the other piece of information that's
6 relevant is how did he look then compared to a year
7 and a half later. So if, for example, he was much
8 worse than 2023 and much better now, that might make
9 me question is this really Parkinson's. So that
10 wasn't the case, but -- so the seeing a person in
11 two points in time can help you with your
12 differential diagnosis.

13 Did that answer your question?

14 Q. Did you ask Mr. McElhiney if he had any
15 public interviews or videos that you could view of
16 them from previous years?

17 A. You know, I don't know if -- I'm sure I
18 didn't spontaneously ask him for that. It would
19 just not be something that I think I would ask
20 somebody. I think -- oh, Mr. McElhiney, I'm sorry.
21 Let me retract that. The answer is no. No, I did
22 another ask Mr. McElhiney.

23 Q. Okay. And so did you ask Mr. Peterson
24 about a CNN interview?

25 A. No. That was the question I was answering,

1 and I apologize for not answering quickly. No, I
2 think they offered that to me as part of -- "they"
3 being Mr. and Mrs. Peterson as hey, you might want
4 to look at this.

5 Q. Do you remember whether that suggestion was
6 from Mr. Peterson?

7 A. I don't recall which one made that
8 suggestion.

9 Q. And then, near the bottom of the page,
10 there are two bullet points. The first one says,
11 "CNN Lejeune Veteran Peterson."

12 What does that mean?

13 A. That's referring to that interview.

14 Q. And below that, it says, "Bell Legal,
15 Peterson."

16 What does that mean?

17 A. I don't know. I don't know what I meant
18 when I wrote that.

19 Q. Did Bell Legal provide you with any videos
20 of Mr. Peterson?

21 A. It's possible that that's where that video
22 came from. I actually don't recall where that video
23 came from.

24 Q. Do you recall reviewing a video?

25 A. I do remember seeing that CNN interview

1 video, yes. But I don't remember whether that was
2 sent to me later on from Bell Legal or whether that
3 was given to me at the time by Mr. Peterson to
4 review. I don't recall that detail.

5 Q. Do you recall if there was a second video?

6 A. No, there was just one.

7 Q. Just one. Does it matter in your
8 differential diagnosis what law firm is representing
9 an individual?

10 A. No.

11 MR. BARR: Object to form.

12 Q. Would you describe this interaction with
13 Mr. Peterson as an interview?

14 MR. BARR: Object to form. Asked
15 and answered.

16 A. Yes.

17 MS. PLATT: Okay. Let's go ahead
18 and take a break.

19 VIDEOGRAPHER: Time on the monitor
20 is 12:16. We are off the record.

21 (Brief recess.)

22 VIDEOGRAPHER: Time on the monitor
23 is 12:30. This begins media 3. We are
24 on the record.

25 BY MS. PLATT:

1 Q. Dr. Barbano, can you turn to Exhibit
2 Number 3, which is your report on Mr. McElhiney, and
3 if you could turn to Page 3?

4 A. Okay.

5 Q. At the very bottom of the page, you state,
6 "The substantial exposures to contaminated water at
7 Camp Lejeune combined with the absence of any other
8 significant and/or substantial causal factors allows
9 me to conclude that Mr. McElhiney's Parkinson's
10 disease was at least as likely as not caused by his
11 exposure to contaminated water at Camp Lejeune."

12 Did I read that correctly?

13 A. Yes.

14 Q. And I also want to turn to Exhibit
15 Number 2, which is your report on Mr. Peterson, on
16 Page 3.

17 A. Yes.

18 Q. The second-to-last paragraph, do you see it
19 begins with "the"?

20 A. Yes.

21 Q. "The substantial exposure to the water at
22 Camp Lejeune combined with the lack of strength of
23 any other substantial causal factors allows me to
24 conclude that Mr. Peterson's Parkinson's disease was
25 at least as likely as not caused by his exposure to

1 the water at Camp Lejeune."

2 Did I read that correctly?

3 A. Yes.

4 Q. So it is your opinion that Mr. Peterson had
5 substantial exposure, correct?

6 A. Yes.

7 Q. And it is your opinion that Mr. McElhiney
8 had substantial exposure, correct?

9 A. Yes.

10 Q. How do you -- you do not define substantial
11 exposure in your reports, correct?

12 A. Correct. Sorry. Let me correct that.
13 Yes, in the part that goes over the exposure
14 estimates by Dr. Reynolds, prior to that, refer to
15 the expert opinions regarding the relative amounts
16 of exposure that would be necessary or sufficient to
17 likely cause brain injury or, in this case, disease
18 and I can give you those. Those are on page -- in
19 Peterson's case, that's on Page 15.

20 Q. Okay.

21 A. So that's the clarification of substantial
22 in my mind.

23 Q. And where on Page 15 do you define what
24 substantial is?

25 A. Not in any -- I'm not sure I use that word,

1 just the calculations I can tell you here. So in
2 those paragraphs where they talk about the exposure
3 and on -- and this is in Peterson's, I'm referring
4 to the fourth paragraph, and there is -- I'm
5 referring to Dr. Gary Miller, his general causation
6 toxicology report, referring to Dr. Goldman's 2024
7 article noting that a greater than 50 fold
8 permissible level of TCE, I would consider that
9 substantial. And Dr. Costa's expert report, so
10 combining those with exposure to estimates run by
11 Dr. Kelly, I would consider those substantial.

12 Q. But you do not quantify what the threshold
13 for substantial is, correct?

14 A. You mean as in a number?

15 Q. Yes.

16 A. Correct.

17 Q. You do not identify a threshold amount of
18 exposure to TCE whereby an individual is guaranteed
19 to develop Parkinson's disease, correct?

20 MR. BARR: Object to form.

21 A. Guaranteed, correct. Using the term
22 guaranteed, no. I don't think there is such a
23 number.

24 Q. And you do not identify a threshold amount
25 of exposure to PCE whereby an individual is

1 guaranteed to develop Parkinson's disease, correct?

2 MR. BARR: Object to form.

3 A. I could not use that word, guaranteed.

4 Q. Did you independently calculate the amount
5 of TCE and PCE exposure to which Mr. McElhiney was
6 exposed during his time at Camp Lejeune?

7 A. No.

8 Q. Did you independently calculate the TCE and
9 PCE exposure to which Mr. Peterson was exposed
10 during his time at Camp Lejeune?

11 A. No.

12 Q. You relied on Dr. Reynolds' report
13 calculating exposure, correct?

14 A. That's correct.

15 Q. And you did not do any independent analysis
16 on your own, correct, of exposure?

17 A. Correct.

18 Q. And Dr. Reynolds based her calculations of
19 Mr. McElhiney and Mr. Peterson's cumulative exposure
20 to the contaminants that concern data -- exposure to
21 the contaminants of concern on data from Morris
22 Maslia's report, correct?

23 MR. BARR: Object to form.

24 A. Correct, that's my understanding.

25 Q. Hypothetically, if Mr. Maslia's data was

1 incorrect, would Dr. Reynolds' calculations be
2 impacted?

3 MR. BARR: Object to form.

4 A. Potentially. It would depend on the size
5 and direction of the calculations.

6 Q. So, for example, if one could show the
7 actual concentrations were 15 percent lower than the
8 values that Mr. Maslia calculated, Dr. Reynolds's
9 exposure calculations would be too high, correct?

10 MR. BARR: Object to form.

11 A. They potentially could be such a percentage
12 different.

13 Q. All else being equal, if Dr. Reynolds'
14 cumulative exposure numbers decreased, would that
15 impact your opinions on the causation of
16 Mr. McElhiney's and Mr. Peterson's Parkinson's
17 disease?

18 MR. BARR: Object to form.

19 A. That's a continuum, and it would depend on
20 how much.

21 Q. Are you aware of whether Dr. Reynolds' use
22 of total mass of ingested chemicals is a standard
23 exposure metric in risk assessment?

24 MR. BARR: Object to form.

25 A. I'm not aware of that one way or the other.

1 Q. Are you aware of whether total mass
2 ingested is generally accepted in the field of
3 toxicology?

4 MR. BARR: Object to form.

5 A. I'm not aware of that one way or the other.

6 Q. Are you aware of whether epidemiological
7 studies apply the same exposure metric that
8 Dr. Reynolds did in her report in this case?

9 MR. BARR: Object to form.

10 A. I'm not aware one way or the other.

11 Q. Would you agree that most reliable
12 epidemiological studies provide cumulative exposure
13 estimates in PPM per year and PPB per month, or PPB
14 per year?

15 MR. BARR: Object to form.

16 A. I don't think I have an opinion on what the
17 best method of presenting that would be.

18 Q. But you are familiar with epidemiological
19 studies, correct?

20 A. Correct.

21 Q. And you cited multiple epidemiological
22 studies in your report, correct?

23 A. Correct.

24 Q. Are you aware that EPA's risk assessment
25 guidelines require that exposures be estimates as

1 oral doses of micrograms per kilogram per day?

2 MR. BARR: Object to form.

3 A. I'm not aware of that.

4 Q. Are you aware that they could also, under
5 EPA's risk assessment guidelines, be estimated as
6 inhalation doses of micrograms per meter cubed?

7 MR. BARR: Object to form.

8 A. I'm not aware of that.

9 Q. You used Dr. Reynolds' total ingestion
10 metric to conclude Mr. Peterson's exposure, correct?

11 A. Yes.

12 Q. And you used Dr. Reynolds' total ingestion
13 metric to conclude Mr. McElhiney's exposure,
14 correct?

15 A. Correct.

16 Q. Did you use that ingestion calculation in
17 other ways in your report?

18 MR. BARR: Object to form.

19 A. I'm not sure what you mean.

20 Q. Did you anywhere else in your report beyond
21 the pages -- beyond the section on Page 15, did you
22 use Dr. Reynolds' total ingestion metric?

23 MR. BARR: For which plaintiff?

24 MS. PLATT: For both, Mr. Peterson
25 and Mr. McElhiney is on Page 15.

1 A. No.

2 Q. And on Page 15 of your report -- which one
3 do you have in front of you?

4 A. I have Peterson.

5 Q. Okay. Let's look at Peterson. You
6 mentioned that Goldman 2024 describes a greater than
7 50-fold the permissible level. Do you see that on
8 Page 15?

9 A. Yes.

10 Q. What permissible level is Goldman referring
11 to there?

12 A. TCE.

13 Q. And what's the -- what is the permissible
14 level? Like, what is the regulation or number that
15 he's referring to there?

16 A. The EPA maximum contaminant levels of
17 5 micrograms per liter.

18 Q. Are you aware whether EPA uses maximum
19 contaminant levels to evaluate potential risk to
20 human health?

21 MR. BARR: Object to form.

22 A. I'm not aware.

23 Q. Are you aware of how EPA establishes
24 maximum contaminant levels?

25 MR. BARR: Object to form.

1 A. No, I'm not aware.

2 Q. Are you aware that MCLs or maximum
3 contaminant levels are designed to be acceptable
4 daily drinking water concentrations over a lifetime
5 of exposure?

6 MR. BARR: Object to form.

7 A. I'm not aware of how the EPA determines
8 those limits.

9 Q. Are you aware of the health protective
10 assumptions that go into determining a maximum
11 contaminant level?

12 MR. BARR: Object to form.

13 A. No.

14 Q. Are you aware there are health protective
15 assumptions that go into determining a maximum
16 contaminant level?

17 MR. BARR: Object to form.

18 A. Yes.

19 Q. Are you aware that EPA uses cumulative dose
20 average over a lifetime to evaluate cancer risk?

21 MR. BARR: Object to form.

22 A. No.

23 Q. And exposure to drinking water -- sorry.

24 And exposure to drinking water
25 concentration in excess of the maximum contaminant

1 level does not necessarily constitute a health risk,
2 correct?

3 MR. BARR: Object to form.

4 A. I can't say that one way or another in that
5 it's kind of a broad statement and I think it would
6 determine -- you would need to determine the amount
7 of over MCL, like 1,000 times over or 10,000 times
8 over. I just -- you would have to quantify that a
9 little better for me.

10 Q. Are you aware of a systemic review of
11 epidemiological literature is?

12 A. More or less, yes.

13 Q. How would you describe it?

14 A. Looking at all of the published articles
15 and data available in regards to exposures and the
16 incidence of disease.

17 Q. Would that be the same process for a
18 systemic review of toxicological literature?

19 A. I would say they would be probably fairly
20 similar, yeah.

21 Q. Have you ever conducted a systemic review?

22 A. Yes.

23 Q. On what topics have you conducted a
24 systemic review?

25 A. Prolonged levels of consciousness after

1 brain injuries.

2 Q. Anything else?

3 A. I think that was one of the larger ones.
4 Yeah, use of rapid testing for a particular disease
5 called Creutzfeldt-Jakob, or prion proteins.
6 Probably a few others that I just can't recall at
7 the time.

8 Q. Were either of these two published?

9 A. The first one is published under my name,
10 it's in the CV.

11 Q. And do you -- was it peer-reviewed?

12 A. Yes.

13 Q. Would you consider your reports in this
14 case on Mr. Peterson and Mr. McElhiney to be a
15 systemic review of the literature?

16 A. No.

17 Q. What is the Bradford Hill criteria?

18 A. Bradford Hill criteria are criteria that
19 were developed to try to ascertain the degree of
20 reliability between a certain toxin or event and
21 outcome.

22 Q. Is Bradford Hill criteria limited to
23 toxins?

24 A. I don't know. That's the way I have used
25 it here, but I don't know whether it's limited to

1 toxins. I don't think so, but I don't know.

2 Q. Other than your reports in this litigation,
3 have you ever used the Bradford Hill criteria as an
4 expert?

5 A. No.

6 Q. And I want to turn to your report. You
7 have Mr. Peterson's report in front of you?

8 A. Yes.

9 Q. That's Exhibit Number 2. If you turn to
10 Page 17 of that report.

11 A. Okay.

12 Q. And it's also on Page 17 of Mr. McElhiney's
13 report.

14 A. Okay.

15 Q. The second paragraph, second sentence,
16 begins with "Although." Do you see that?

17 A. Second sentence, yes.

18 Q. "Although this diagnosis ideology opinion
19 can be based on clinical findings and judgment
20 alone, it can also be supported by an application in
21 consideration of the Bradford Hill criteria not all
22 of which need to be met, but individually," colon.

23 Did I read that correctly?

24 A. Yes.

25 Q. And then you go on to list a numbered list,

1 correct?

2 A. Correct.

3 Q. And do you see in the report on
4 Mr. McElhiney, Page 17, you have the same statement
5 and the same list?

6 A. Yes.

7 Q. So I have a few questions about this list
8 and we are going to walk through it in
9 Mr. Peterson's report, if that's okay.

10 A. Okay.

11 Q. But it is very similar, and if there's any
12 differences, I will note those for Mr. McElhiney's
13 report.

14 A. Okay.

15 Q. So going to that statement that I just read
16 that begins with "although," what is your support
17 for that statement?

18 A. Well, I think that the diagnosis -- or
19 here, the assessment of causality, is largely based
20 on clinical findings, certainly for the diagnosis,
21 and a review of the medical literature. Applying
22 the Bradford Hill criteria, in my opinion, is here
23 kind of, like, gilding the lily, just showing that
24 this opinion that there is causality here is
25 supported by these established or these frequently

1 used criteria that people will run a question
2 through.

3 Q. And when you say "people," do you mean
4 epidemiologists?

5 A. Yes.

6 Q. And you said that it's based off of, you
7 know, your clinical finding, a review of the medical
8 literature. When you refer to medical literature,
9 are you referring to the medical records?

10 A. No. When I use the term literature, I'm
11 referring to stuff in, like, PubMed in regards to
12 ideology, risk factors, those other issues we were
13 talking about before. Not medical records, I would
14 call those medical records.

15 Q. Why did you choose in this report to do a
16 Bradford Hill analysis?

17 A. In my reading, after I took on this case,
18 it appeared that that was going to be one of the
19 benchmarks that was going to be considered.

20 Q. And what did you read in particular that
21 gave you that inclination?

22 A. I don't -- I don't recall where I had read
23 that. Early on, when I decided to accept this case
24 and I was reading the ATSDRN, and the other files
25 forwarded to me, that came up. But I don't know the

1 actual source of where I had the idea that this was
2 going to come up and should be addressed.

3 Q. Bradford Hill analysis requires an
4 association to be found before applying the
5 criteria, correct?

6 A. Correct.

7 Q. And did you establish an association before
8 you applied this criteria?

9 A. I think the association between TCE and
10 Parkinson's disease has been established in the
11 literature.

12 Q. Any literature in particular?

13 A. The Goldman, even if you just start with
14 Goldman. You would say okay, here is a paper that
15 says there's an association here. So based on that
16 association, let's apply Bradford Hill and see if it
17 holds more.

18 Q. Are you referring to the Goldman 2024 that
19 you referenced earlier?

20 A. Yes.

21 Q. Okay. Is it standard practice to determine
22 or observe an association based off of one study?

23 A. That would be -- it would be reasonable if
24 you wanted to move that forward. To answer your
25 question, there are studies, one would consider a

1 pilot study, so maybe one looked at some
2 association, it may be a small study, but at least
3 that might be a pilot study that inspired one to
4 move forward and look further and other studies or
5 even just say wait, that makes no sense, just went
6 through Bradford Hill and nothing actually fits.
7 It's just a random association.

8 So any study, one or more, would be
9 worthwhile considering to get further depth if you
10 really wanted to get at the answer.

11 Q. And do you view Goldman 2024 as a pilot
12 study?

13 MR. BARR: Object to form.

14 A. No, I don't consider that a pilot study. I
15 would consider more of the study that we had done
16 and you asked about before in the Rochester area,
17 that was more, I would say, pilot or exploratory.
18 There's not a lot of subjects, so it's something to
19 -- you want to consider. So when you are doing a
20 study, you might want to just see whether the
21 association is consistent with other studies.

22 And so here, you have a body of evidence,
23 there was gash, there was other articles in the
24 literature even Goldman's prior twin study that
25 suggested that, you know what, TCE is associated

1 with Parkinson's disease. Could it be causal? So I
2 think those are considered as part of what I wanted
3 to look at when I wrote this report, and applying
4 the Bradford Hill goes along with that.

5 If none of the Bradford Hill matched, it
6 would make me question the association, but I didn't
7 find that. I found that there was a good coherence
8 between the Bradford Hill assessments and that
9 association.

10 Q. So on Page 17, you begin your Bradford Hill
11 assessment, correct?

12 A. Correct.

13 Q. Where do you note that there is an
14 established association that exists before
15 undertaking the Bradford Hill analysis?

16 A. In the literature on the Goldman article,
17 for example.

18 Q. And where do you state in your report that
19 an association exists?

20 A. I think that's a -- I think that's just a
21 general assumption of all of the previous articles
22 that have come out in the association between
23 Parkinson's disease and TCE. If there wasn't that
24 assumption, people wouldn't continue to be doing
25 research on it, so I think that's a fairly accepted

1 assumption that this is a possibility and this is
2 where that assumption comes from.

3 Q. And so the first factor you have listed on
4 Page 17 is temporal relationship; is that correct?

5 A. Correct.

6 Q. And so it states in that -- sorry. Let me
7 rephrase.

8 Under temporal relationship, you consider
9 the latency between Mr. Peterson's exposure and
10 development of PD to conclude this factor is met,
11 correct?

12 A. Correct.

13 Q. And if you look to Mr. McElhiney's report,
14 you have the same for him; is that correct?

15 A. Correct.

16 Q. And how does this analysis support a
17 conclusion of temporality?

18 A. So if the Parkinson's disease preceded the
19 exposure, that would, obviously, negate that. Then,
20 you have to ask, after an exposure, is the amount of
21 time, the duration between the exposure and the
22 outcome, in this case, a disease, is that reasonable
23 knowing the pathophysiology of the disease or how
24 that disease develops, right?

25 So if we wanted to say, hey, you know,

1 exposure to TCE causes nosebleeds, if the nosebleeds
2 occur ten years later, it's harder knowing the
3 pathophysiology of what causes nosebleeds, that's a
4 harder connection to make.

5 In Parkinson's disease, there's clearly a
6 delay between the initial injury to those nerve
7 cells and the manifestation of the disease, and I
8 think in both of those cases, that passes the
9 temporal relationship cause.

10 Q. And what does the scientific literature
11 establish is the latency between chemical exposure
12 and Parkinson's disease?

13 MR. BARR: Object to form.

14 A. There's no clear human relationship that is
15 established as a latency. But partly, there is no
16 experimental trials. People don't do experimental
17 trials on toxins, but the -- but there is
18 significant data between when people first start
19 having any signs or symptoms of Parkinson's disease
20 that we think are related and when they actually
21 come up with their diagnosis, and that could be in
22 terms of decades. So that fits into this temporal
23 relationship?

24 Q. And how is that related to chemical
25 exposure?

1 MR. BARR: Object to form.

2 A. Just as an analogy to injured, or damaged,
3 or nonfunctioning substantial nigral cells or, you
4 know, dopamine-producing cells.

5 Q. And the next criteria list is consistent
6 positive association; is that correct?

7 A. Uh-huh.

8 Q. What are you referring to here as the
9 Bradford Hill criteria?

10 A. There's a consistency between the studies
11 of exposure to TCE and the development of
12 Parkinson's disease in the Camp Lejeune case and
13 also in the -- in this other citing that I have that
14 exposure to industrial solvents increased the risk
15 of PD.

16 Q. And so --

17 A. And a consistency in the sense that there
18 is generally a strong body of evidence that links
19 these two facts together, TCE exposure and
20 Parkinson's disease.

21 Q. So you are referring to Bradford Hill's
22 consistency material, correct?

23 A. Correct.

24 Q. And Bradford Hill's consistency criteria
25 looks at has there been repeated observed effects in

1 different persons in different places in
2 circumstances and times, correct?

3 MR. BARR: Object to form.

4 A. Correct.

5 Q. And so you state, "There is consistency
6 between epidemiological studies of exposure to TCE
7 and the development of Parkinson's disease in other
8 settings outside of the Camp Lejeune exposure.
9 Another study in humans also showed an increased
10 risk of Parkinson's disease in the general
11 population exposed to TCE."

12 Did I read that correctly?

13 A. Correct.

14 Q. And you cite to an article from MedScape,
15 correct?

16 A. Correct.

17 Q. What is this other study that the MedScape
18 article is referring to?

19 A. That's a study, and I think it's been
20 published since my report came out, linking exposure
21 -- environmental levels of TCE with increased
22 incidents of Parkinson's disease. The author, I
23 believe his last name is Karzynski, K-A-R -- I'm
24 going to have a tough time with this one.
25 K-A-R-Z-Y-N-S-K-I. I believe she's the first

1 author, and I do think it has been officially
2 published since that MedScape prepublication, which
3 was based on a presentation at a conference.

4 Q. And what population did Dr. Karzynski look
5 at?

6 A. The general population. So all-comers
7 depending on ZIP code.

8 Q. There was no limitation to that sample of
9 population?

10 A. Not that I'm aware of. It was, basically,
11 looking at where people resided and seeing whether
12 patients who -- people who resided in areas where
13 TCE is known to be in higher concentrations having a
14 higher risk for developing Parkinson's disease.

15 Q. What time period did the study consider?

16 MR. BARR: Object to form.

17 A. I don't recall the detail of that.

18 Q. Did you review the study before you cited
19 this article in your report?

20 A. I reviewed the -- this article and the --
21 the presentation at the conference.

22 Q. But you did not review the underlying
23 study, correct?

24 A. The underlying data, I did not review, no.

25 Q. Is it your standard of practice as an

1 expert to rely on a news article referencing a
2 study?

3 MR. BARR: Object to form.

4 A. No, but as I said, I actually -- that's the
5 only place that that appears in a published form,
6 but I was able to review the information from the
7 conference.

8 Q. And you believe the study is now published?

9 A. I do believe so, yes.

10 Q. I'm going to go ahead and mark Exhibit
11 Number 11. Dr. Barbano, I just handed you Exhibit
12 Number 11. This is the MedScape article that you
13 cite to in your report, correct?

14 (Exhibit Number 11 was marked for
15 identification.)

16 A. Yes. And I can see I misspelled and
17 pronounced the author's name.

18 BY MS. PLATT:

19 Q. We can clarify that for the court reporter
20 on the next break so she has the right spelling.

21 A. Okay.

22 Q. Do you know if the underlying study was
23 peer-reviewed?

24 A. I don't know that.

25 Q. If you turn to page -- sorry.

1 Do you know what subtype of epidemiological
2 study it was?

3 A. No.

4 Q. Do you know if it was a cohort study?

5 A. No.

6 Q. If it was a case control study?

7 MR. BARR: Object to form.

8 A. No.

9 Q. Do you know if it was an ecological study?

10 MR. BARR: Object to form.

11 A. No.

12 Q. And study design is important in your
13 criteria for determining whether a study is
14 considered high quality, correct?

15 A. Correct.

16 Q. So wouldn't it be important to know that
17 information before you cite it to the MedScape
18 article in your report?

19 MR. BARR: Object to form.

20 A. No, and I will clarify. What we are
21 looking for here is in applying the Bradford Hill,
22 again, what we are looking for is consistency. So
23 you can have many low-quality reports, but if they
24 are all giving you the same signal, that's
25 considered consistency.

1 So I would say that you have a strong
2 article in the Goldman, a potentially weaker
3 strength of evidence in this, but they are
4 consistent in their direction of showing causality
5 or showing a linking between TCE and Parkinson's
6 disease.

7 So, you know, this -- and I haven't -- I
8 don't have the actual publication that this -- that
9 ensued after this, but even if it's not a -- you
10 know, the strength of the article, and it may be
11 very strong, I'm not saying -- this year, I can't
12 judge the strength of the article that ensued.

13 But the issue is that it really is
14 consistent in its signal of that association and
15 that's when we are talking about Bradford Hill,
16 that's what the consistent associations refers to.

17 Q. So you have not since reviewed the
18 published version of the study, correct?

19 A. I have not, no.

20 Q. And if you turn to Page 3.

21 A. Of this?

22 Q. Of the MedScape article, yes.

23 A. Yes.

24 Q. Under the bolded heading, it states the
25 session moderator was Jeff Bronstein, MD, PhD; is

1 that correct?

2 A. Yes.

3 Q. And you previously stated that you learned
4 about this study and the information in this study
5 from the presentation, correct?

6 A. Correct.

7 Q. And Dr. Bronstein was the moderator of that
8 session, correct?

9 MR. BARR: Object to form. Asked
10 and answered.

11 A. Yes.

12 Q. And if you look to the bottom, the last --
13 the second-to-last paragraph, second sentence, it
14 states, "Dr. Bronstein consults for a legal firm
15 involved in the Camp Lejeune litigation"; is that
16 correct?

17 A. Yes.

18 Q. Do you know Dr. Bronstein?

19 A. No.

20 Q. And if you turn to Page 1 of the article,
21 under the bold heading, it states, "In an interview,
22 Dr. Krzyzanowski pointed out that the Camp Lejeune
23 studies didn't assign TCE exposure to individuals.
24 Instead, researchers noted whether an individual was
25 stationed at a base or another," correct?

1 A. At that base or another, correct.

2 Q. And then it goes on to a quote from the
3 author of the study. "Our study adds to the
4 previous work by investigating environmental
5 exposures using TCE estimates that we were able to
6 assign to individuals. It shows you don't have to
7 work in a facility with TCE, you don't have to be
8 stationed on a military base with tainted water, you
9 just have to live in a senseless trap with higher
10 levels of TCE to have an increased risk."

11 Did I read that correctly?

12 A. Yes.

13 Q. And then, if you turn to Page 3, the third
14 paragraph.

15 A. Yes.

16 Q. It states, "It remains uncertain whether
17 TCE is a direct cause of Parkinson's disease." Did
18 I read that correctly?

19 A. Yes.

20 Q. Okay. I believe you can set that aside
21 now, and we are going to turn back to Mr. Peterson's
22 report.

23 The next criteria you have listed in your
24 Bradford Hill analysis for both Mr. Peterson's
25 report and Mr. McElhiney's report is magnitude of

1 the effect estimate, correct?

2 A. Yes.

3 Q. What does magnitude of the effect estimate
4 mean?

5 A. The way I would apply that in this case is
6 that the exposure, the magnitude of the exposure, is
7 significant enough to consider whether there is the
8 potential for causality or an association.

9 Q. And how is that different from Bradford
10 Hill's criteria of strength?

11 MR. BARR: Object to form.

12 A. So one refers to the magnitude, and my
13 opinion here, refers to is the punitive toxin
14 present at a level high enough that it is reasonable
15 to consider, right? So if someone had a -- not just
16 an association, but did they -- was the exposure of
17 high enough magnitude that it's reasonable to
18 consider that criteria as fulfilled. Strength, in
19 my mind, in that number 7, refers to the strength of
20 the -- the statistical strength of the study.

21 Q. Did you create the name of this criteria,
22 magnitude of the effect estimate?

23 A. No.

24 Q. That's not one of Bradford Hill's criteria,
25 correct?

1 A. You know, I'm not sure. I thought that was
2 -- at least the reference I saw referred to it as.

3 Q. And what reference did you look to?

4 A. The -- I looked up the original article by
5 Bradford Hill, but also other articles that refer to
6 the original article from Bradford Hill. So as I
7 sit here, I can't recall exactly where that exact
8 phrasing, quote, "magnitude of the effect estimate"
9 comes from.

10 Q. On Page 17 of Mr. McElhiney's report.

11 A. Okay.

12 Q. You state, "For the magnitude of the effect
13 estimate, it is more likely than not that
14 Mr. McElhiney's estimated exposure to TCE exceeds
15 those exposure levels linked to disease."

16 And you cite to Dr. Miller's general
17 causation report. Did I read that correctly?

18 Q. And then, if you turn back to
19 Mr. Peterson's report on Page 17, magnitude of the
20 effect estimate.

21 A. Yes.

22 Q. You state, "It is more likely than not that
23 Mr. McElhiney's estimated exposure to TCE exceeds
24 those exposure levels linked to this disease."

25 And cite to Dr. Miller's general causation

1 report, correct?

2 A. Correct.

3 Q. And is that a typo that you referenced
4 Mr. McElhiney there?

5 A. Yes, that would be a typo, correct.

6 Q. And you intended to say Mr. Peterson?

7 A. Correct.

8 Q. Okay. You used the phrase more likely than
9 not here. What does that mean?

10 A. That it is greater the chance, greater than
11 50/50.

12 Q. And you cite to Dr. Miller's report in both
13 of your Bradford Hill analyses, correct?

14 A. Correct.

15 Q. Did you review Dr. Miller's report?

16 A. Yes.

17 Q. Did you meet with Dr. Miller?

18 A. No.

19 Q. Dr. Miller did not evaluate Mr. McElhiney's
20 exposure, correct?

21 A. Not that I'm aware of.

22 Q. And Dr. Miller did not evaluate
23 Mr. Peterson's exposure, correct?

24 A. Again, I don't know that for sure, but not
25 that I'm aware of.

1 Q. Did you provide any independent analysis of
2 Dr. Miller's opinions?

3 A. No.

4 Q. Did you have any independent analysis of
5 the study used or publications he relies on?

6 A. No.

7 Q. The next criteria you list is
8 "Exposure-Response Relationship."

9 A. Uh-huh.

10 Q. What Hill criteria is that?

11 A. I believe that's the name of the criteria,
12 Exposure-Response Relationship.

13 Q. And you would have gotten that terminology
14 from reading Bradford Hill's original essay?

15 MR. BARR: Object to form.

16 A. Correct. Or one of the other articles that
17 referred to that.

18 Q. What does exposure-response relationship
19 mean?

20 A. That there is an available -- as best I
21 understand it, that there is an available ability to
22 have a direct link observable between an exposure
23 and a response. And I believe that refers to more
24 of experimental situations than in human
25 observations.

1 Q. So that cannot be met through
2 epidemiological studies?

3 A. Potentially. I didn't -- as you notice, I
4 didn't add anything there. I did not find anything
5 in my report that I would say met that criteria.

6 Q. So you view it as not being met?

7 MR. BARR: Object to form.

8 A. Correct. That particularly criteria not
9 being met.

10 Q. And then, next, you have biological
11 plausibility, correct?

12 A. Correct.

13 Q. You do not cite any literature to support
14 this, correct?

15 A. Correct.

16 Q. And the next category is coherence,
17 correct?

18 A. Correct.

19 Q. And you state, looking at Mr. Peterson's
20 report, "There is clear coherence between the
21 disease produced in laboratory animals and human
22 Parkinson's disease"; is that correct?

23 A. That's correct.

24 Q. And you have the same statement in
25 Mr. McElhiney's report, correct?

1 A. Correct.

2 Q. And you go on to cite Lou 2010, correct?

3 A. Correct.

4 Q. And that is a study titled,

5 "Trichloroethylene induces dopaminergic

6 neurodegeneration in Fisher 344 at Kratz," correct?

7 A. Correct.

8 Q. Did you review that study?

9 A. Yes.

10 Q. Okay. I would like to enter Exhibit
11 Number 12. And this is the Lou study, correct?

12 (Exhibit Number 12 was marked for
13 identification.)

14 A. Yes.

15 BY MS. PLATT:

16 Q. And you said you reviewed this, correct?

17 A. Yes.

18 Q. This is a toxicological study, correct?

19 A. Yes.

20 Q. And as you previously testified, you are
21 not an expert in toxicology, correct?

22 MR. BARR: Object to form. Asked
23 and answered.

24 A. Correct.

25 Q. So can you answer questions about the

1 substance of this article?

2 MR. BARR: Object to form.

3 A. To a certain level.

4 Q. And where does that level stop?

5 A. Again, to the level of being a
6 neuroscientist, but not necessarily a toxicologist.

7 Q. How many animals were -- how were the
8 animals exposed in this study?

9 MR. BARR: If you want to take the
10 time to read this document --

11 A. Yeah, it's been quite a long time since I
12 have looked at this, so I would just need a second
13 to review this.

14 Q. Would you like to go off the record? Is it
15 going to take more than 30 seconds?

16 MR. BARR: I mean, you asked him a
17 very broad question.

18 MS. PLATT: How were they exposed?
19 I don't think that's a very broad
20 question. I'm happy to give him --

21 MR. BARR: He doesn't have every
22 study that he's looked at memorized, so
23 if you give him a chance to read the
24 study. You asked him the question, it's
25 fair for him to read it if you want him

1 to answer questions about it.

2 MS. PLATT: I'm happy to go off the
3 record and give him the --

4 MR. BARR: No, we are not going to
5 go off the record. He can answer the
6 questions.

7 A. I already found the answer. TCE dissolved
8 in olive oil by oral lavage.

9 BY MS. PLATT:

10 Q. And if you turn to Page 776. I'm sorry.
11 That's not the correct page number. We are looking
12 at Figure 1.

13 A. Okay.

14 Q. And that's on Page 13?

15 A. Correct.

16 Q. Do you see the bar graph there?

17 A. Yes.

18 Q. What is the Y axis denoting?

19 A. The Y axis is tyrosine hydroxylase positive
20 cell counts.

21 Q. And it appears the cell counts are 45, 36,
22 33, and 25. Does that look about right?

23 A. Yeah, looks about right.

24 Q. And this is for exposure five days a week
25 for six weeks, correct?

1 A. Again, I would have to review that, but I
2 will believe you.

3 Q. And you would be reviewing it from your
4 standpoint as a neurologist, correct?

5 A. Correct.

6 Q. So it looks like the highest dose is 1,000
7 TCEs, correct?

8 A. Correct.

9 Q. And the neuron loss is still more than
10 50 percent -- sorry. There are still more than
11 50 percent of neurons left for that dosage, correct?

12 A. Let's see. Yeah, I would say roughly just
13 ball-parking it. Yeah, just eyeballing it, I would
14 say there's a little more than 50 percent.

15 Q. Do you know how the levels in this study
16 compared to the levels of exposure at Camp Lejeune?

17 A. No.

18 Q. Do you know how the levels in this study
19 compare to exposure of the levels to Mr. McElhiney
20 at Camp Lejeune?

21 A. No.

22 Q. Do you know how the levels of exposure in
23 this study compare to the levels of exposure of
24 Mr. Peterson at Camp Lejeune?

25 A. No.

1 Q. Did you review the follow-up study by Lou?

2 A. Perhaps. Do you have it? I can see
3 whether I --

4 Q. I can tell you the name is Lou, it was
5 published in 2018, it was titled, "Trichloroethylene
6 and Parkinson's Disease Risk Assessment."

7 A. Not that I immediately recall.

8 Q. If you reviewed it, it would be on your
9 materials considered list, correct?

10 A. No, not necessarily. There is many, many
11 articles that I reviewed online that I just made
12 mental notes of that might not actually be put on
13 the list. It's like a -- you know, a literature
14 search is -- there's lots of different articles that
15 come up, you look at them to different levels, and
16 whether you want to continue those, they may or may
17 not make it onto a list.

18 Q. And turning back to the Bradford Hill
19 criteria, you also cite to Dr. De Miranda's general
20 causation report in establishing your coherence; is
21 that correct?

22 A. Correct.

23 Q. Did you review Dr. De Miranda's report?

24 A. Yes.

25 Q. Did you meet with Dr. De Miranda?

1 A. No.

2 Q. Are you citing to a specific portion of
3 Dr. De Miranda's report in that statement?

4 A. No.

5 Q. You are just citing in general to her
6 report?

7 A. Correct.

8 Q. Did you do any independent analysis of
9 Dr. De Miranda's opinions?

10 A. No.

11 Q. Did you do any independent analysis of the
12 studies and publications that Dr. De Miranda relied
13 on?

14 A. No.

15 MS. PLATT: Why don't we go ahead
16 and take a break?

17 VIDEOGRAPHER: Time on the monitor
18 is 1:25. We are off the record.

19 (Recess.)

20 VIDEOGRAPHER: Time on the monitor
21 is 2:42. This begins media 4. We are
22 on the record.

23 BY MS. PLATT:

24 Q. Okay. Dr. Barbano, if you would turn to
25 your reports again, let's start with Exhibit 3,

1 which is your report on Mr. McElhiney.

2 A. Okay.

3 Q. If you turn to Page 14 of that report.

4 A. Okay. I'm there.

5 Q. And do you see at the top of that heading,
6 there's a footnote, and that corresponds to the
7 footnote at the bottom of the page?

8 A. Yes.

9 Q. And that footnote is to your heading,
10 "Contaminated Water at Camp Lejeune TCE and PCE
11 Exposure," correct?

12 A. Correct.

13 Q. Would you agree that this section of your
14 report includes your opinions regarding the causal
15 relationship between TCE and PCE and PD?

16 A. Yes.

17 Q. And that footnote reads, "The causal
18 relationship between the water at Camp Lejeune, most
19 notably TCE and PCE and Parkinson's disease, is set
20 out in detail in the general causation reports of
21 Dr. Bahm, De Miranda, Miller, Cannon, Costa,
22 Freeman, and Bird. As noted above, I have reviewed,
23 considered, and understand these reports as to the
24 general issues concerning the causal relationship
25 between TCE, PCE, and Parkinson's disease. Although

1 I have deferred to their specific expertise, I have
2 reviewed these reports and I agree that these toxins
3 are at least as likely as not to cause Parkinson's
4 disease."

5 Did I read that correctly?

6 A. Yes.

7 Q. And I want to note that in your Peterson
8 report, which is Exhibit 2, you have a footnote to
9 that heading, but the text that I just read is in
10 the first paragraph. It was not a footnote. It's
11 on Page 14.

12 A. Okay. Yes.

13 Q. And you agree that's the same as what I
14 just read?

15 A. Yes.

16 Q. And previously, as we have discussed, you
17 are not an expert in epidemiology, correct?

18 A. Correct

19 MR. BARR: Object to form. Asked
20 and answered.

21 Q. And you are not an expert in toxicology?

22 MR. BARR: Object to form. Asked
23 and answered.

24 A. Correct.

25 Q. And while you state you are deferring to

1 the general causation expertise of the experts
2 listed in that footnote, is it true that you have
3 also made your own general causation determinations?

4 MR. BARR: Object to form.

5 A. Yes.

6 Q. Sorry. Let's get that clear on the record.
7 There was a lot of overlap there.

8 And while you say you are deferring to the
9 general causation expertise of the experts listed in
10 that footnote, is it true that you have already made
11 your own general causation determinations?

12 MR. BARR: Object to form.

13 A. Yes.

14 Q. And you state that it's your opinion that
15 TCE and PCE are at least as likely as not the cause
16 of Parkinson's -- at least as -- let me just start
17 over.

18 You state that it is your opinion that TCE
19 and PCE are at least as likely as not to cause
20 Parkinson's disease, correct?

21 A. In these cases, correct.

22 Q. And what do you mean, "in these cases"?

23 A. I'm sorry. Maybe I was mis-following.
24 Yes, I would just say correct.

25 Q. Okay. Where does the phrase "at least as

1 likely as not" come from?

2 A. The ATSDR standard.

3 Q. And what ATSDR standard are you referring
4 to?

5 A. Actually, it came up within the -- I'm not
6 exactly sure what it's called in the original
7 lawsuit requirement standards of what this case
8 would be tried at.

9 Q. What original lawsuit are you referring to?

10 A. I received a copy of the statute, I guess
11 that's what it is, I'm sorry. Maybe that's the
12 right term. The statute that has that standard in
13 there.

14 Q. Okay. And when you say "statute," you are
15 talking about the Camp Lejeune Justice Act; is that
16 correct?

17 A. Yes, that's correct. Thank you.

18 Q. Was the Camp Lejeune Justice Act provided
19 to you by counsel?

20 A. Yes.

21 Q. What does at least as likely as not mean?

22 A. Equipoise, that is -- there's at least a
23 50/50 chance or better that there's causality.

24 Q. Have you used the phrase at least as likely
25 as not as your standard in your clinical practice?

1 MR. BARR: Object to form.

2 A. In clinical practice, no.

3 Q. In your work as an expert in past cases,
4 have you used the standard at least as likely as not
5 in your expert reports?

6 MR. BARR: Object to form.

7 A. In the cases that I have been involved
8 with, the standard has been more likely than not,
9 and I use that standard for those cases.

10 Q. And why did you deviate in this case?

11 MR. BARR: Object to form.

12 A. Because that was the requirement in the
13 statute.

14 Q. And that was the requirement that counsel
15 provided you with; is that true?

16 MR. BARR: Counsel, you know what
17 the act says, and it's not something we
18 provided to him. It's what the law
19 provides.

20 MS. PLATT: Do you have an
21 objection?

22 MR. BARR: You are not going to
23 mislead the witness and put words in our
24 mouths and try to make it look like
25 something inappropriate happened. He's

1 following the law of the statute.

2 MS. PLATT: I would remind you
3 that --

4 MR. BARR: I know what the case
5 order says, but it also says you can't
6 misrepresent to the witness. So you
7 have an obligation here too.

8 MS. PLATT: Do you have an
9 objection?

10 MR. BARR: I have stated it.

11 MS. PLATT: Okay.

12 BY MS. PLATT:

13 Q. Dr. Barbano, the standard at least as
14 likely as not is the standard that was provided to
15 you by counsel; is that correct?

16 MR. BARR: Object to form.

17 A. Correct.

18 Q. Have you reviewed any scientific literature
19 that uses the phrase at least as likely as not?

20 A. In general scientific literature, it
21 doesn't use those general terminologies, so not that
22 I can recall.

23 Q. In previous litigation where you have acted
24 as an expert, have you reviewed the statute
25 involved?

1 A. Yes.

2 Q. And in what cases have you reviewed the
3 statute?

4 A. In cases of medical malpractice, the
5 statute involving standard of care and general level
6 of what is community accepted standards.

7 Q. And are those statutes passed by state
8 legislative bodies?

9 A. I don't know.

10 Q. And you are not a lawyer, correct?

11 A. Correct.

12 Q. Never been to law school?

13 A. Correct.

14 Q. Never passed the bar?

15 A. Correct.

16 Q. So let's go back to Page 14 of your
17 reports, and this is on Page 14 of both
18 Mr. McElhiney's report and Mr. Peterson's report.

19 In the fourth paragraph, you state, "TCE
20 and PCE are structurally similar. Whether there are
21 fewer existing data regarding PCE, there is no
22 significant difference between the two chemicals to
23 suspect that PCE would not be equally toxic."

24 Did I read that correctly?

25 A. Yes.

1 Q. And you cite to Dr. Cannon's report,
2 correct?

3 A. Correct.

4 Q. Do you have any other support for this
5 statement beyond Dr. Cannon's report?

6 A. Just my general knowledge of chemistry and
7 the inspection of the molecules.

8 Q. Are you aware of any studies that conclude
9 that PCE is equally as toxic as TCE?

10 A. Not offhand. Not that I can recall at the
11 moment.

12 Q. Are you aware of any studies that conclude
13 that PCE causes Parkinson's disease because PCE is
14 structurally similar to TCE?

15 MR. BARR: Object to form?

16 A. When you talk about Parkinson's, you are
17 talking about the human disease?

18 Q. Yes.

19 A. No, I'm not aware of any studies that show
20 that.

21 Q. PCE has four chlorines, correct?

22 A. Correct.

23 Q. And it has no hydrogens, correct?

24 A. Correct.

25 Q. TCE has three chlorines, correct?

1 A. Correct.

2 Q. And one hydrogen, correct?

3 A. Correct.

4 Q. And so there are two atoms different
5 between PCE and TCE, correct?

6 A. Correct.

7 Q. And you are not a toxicologist?

8 A. Correct.

9 MR. BARR: Counsel, we have
10 established that at this point.

11 MS. PLATT: Your objection is
12 noted.

13 MR. BARR: Well, you just keep
14 asking the same question over and over.

15 BY MS. PLATT:

16 Q. Did you perform an independent analysis of
17 Dr. Cannon's report?

18 A. No.

19 Q. Do you have any professional expertise in
20 analyzing chemical composition?

21 A. No.

22 Q. And then, turning back to Page 14 of both
23 of your reports, the fifth paragraph in your
24 McElhiney report and the sixth report in your
25 Peterson report begins with "given."

1 Do you see that?

2 A. Yes.

3 Q. "Given the weight of the evidence, exposure
4 to the contaminated water at Camp Lejeune is clearly
5 an appropriate factor to consider when conducting a
6 causality assessment using differential diagnoses
7 for Parkinson's disease."

8 Did I read that correctly?

9 A. Yes.

10 Q. And there you state, "Given the weight of
11 the evidence, exposure to contaminated water at Camp
12 Lejeune is clearly an appropriate factor."

13 What evidence are you referring to?

14 A. The body of literature, both human
15 associations as well as animal experimentation as
16 well as showing that TCE and PCE get metabolized to
17 similar structures, and the vast body of literature
18 showing that TCE and, to the lesser extent, PCE can
19 re produce the pathology in animals that is
20 identical to that in humans.

21 Q. And you did not discuss how you weighed
22 that evidence in your report, correct?

23 A. Correct.

24 Q. Did you record how you weigh that evidence
25 in any notes?

1 A. No.

2 Q. And going back to that quote on Page 13,
3 you use the word "clearly." What does clearly mean?

4 A. On Page 13?

5 Q. 14.

6 A. Oh, I'm sorry. 14. Which --

7 Q. The quote I just read you --

8 A. Oh, I say "clearly" in that same sentence.

9 Q. Yes.

10 A. Thank you. I don't know, I guess I was
11 using it as a general human term that in the sense
12 that, to me, clearly means that it would be -- it
13 would be silly not to consider that as something as
14 a factor.

15 Q. Is it a standard you use in your clinical
16 practice?

17 MR. BARR: Object to form.

18 A. Yes, to some level or another I will use
19 that term.

20 Q. What resources did you consider in
21 determining risk factors for Parkinson's disease?

22 A. The medical literature.

23 Q. Any studies in particular?

24 A. Many, some of which are on the list and
25 many others that I have read and personal

1 experience.

2 Q. And you did not include a comprehensive
3 list of risk factors in your reports, correct?

4 A. Correct, I included the risk factors that,
5 in my opinion, were reasonable.

6 Q. Reasonable for these two plaintiffs,
7 correct?

8 A. Correct.

9 Q. What percent of Parkinson's disease cases
10 is the cause known?

11 MR. BARR: Object to form.

12 A. Overall, I think that's a little hard to
13 determine because that changes all of the time. So
14 as literature grows, as evidence grows, as our body
15 of knowledge grows, the causality becomes clearer
16 over time. The percentage of cases that are known
17 is a sort of percentage that doesn't hold a lot of
18 meaning because you would have to say what
19 percentage was the cause looked at.

20 So the majority of cases of Parkinson's,
21 once that diagnosis of Parkinson's is made, the
22 potential causalities are not very much -- very far
23 evaluated with the exception of potentially doing
24 genetic testing in people on family histories. So
25 the percentage that is known really is a kind of an

1 unknown. It's an unknown in the sense that it's not
2 clear what percentage of patients with Parkinson's
3 disease was a cause looked for.

4 Q. If you had to estimate currently, what --
5 in what percent of Parkinson's cases is the cause
6 known?

7 MR. BARR: Is there a question?

8 MS. PLATT: That was the question.

9 MR. BARR: I didn't hear a
10 question. Object to form.

11 A. What percentage if I had to estimate, yeah.
12 I would say when we talk about the known causes that
13 people in clinical practice will generally consider,
14 they will consider usually genetics, in which case
15 between 10 and 20 percent of cases have a genetic
16 underpinning.

17 The vast majority of the other 80,
18 90 percent, the percent of that that is unknown is
19 unknown in that the -- unless a genetic abnormally
20 is suspected, it's not common practice to actually
21 look into other causes as they generally would not
22 have an effect on the care and treatment of the
23 patient.

24 BY MS. PLATT:

25 Q. So is it fair to say that the cause of

1 majority of Parkinson's cases is unknown?

2 MR. BARR: Object to form.

3 A. I would say that the cause -- I would
4 phrase it as the cause of the majority of cases of
5 Parkinson's disease is uninvestigated.

6 Q. And if the cause is uninvestigated, then
7 the cause is unknown, correct?

8 MR. BARR: Object to form. He
9 answered the question.

10 A. In the sense that if one doesn't look, one
11 doesn't find. So I would say that's why I kind of
12 rephrased that to say that the majority of cases,
13 people don't look. It doesn't mean that a cause
14 would not be found in X-percentage of those, but if
15 you don't look, you don't find. So I would stick to
16 saying that the majority of cases of Parkinson's
17 disease, the cause is uninvestigated.

18 Q. If you want to turn to Page 11 of your
19 reports. It 11 for both McElhiney and Peterson.

20 A. Okay.

21 Q. Actually, it's 12 for McElhiney, 11 for
22 Peterson.

23 A. Okay.

24 Q. If you look at the first sentence under
25 "Overarching Considerations."

1 A. Okay.

2 Q. "In many instances, practicing neurologists
3 commonly diagnose patients with idiopathic
4 Parkinson's disease often because a causality
5 assessment is not conducted."

6 Did I read that correctly?

7 A. Yes.

8 Q. Would you agree that we don't fully
9 understand all of the causes of Parkinson's disease?

10 A. Yes.

11 Q. And that science is continuing to identify
12 new potential causes, correct?

13 A. Correct.

14 Q. And that in many instances in Parkinson's
15 disease -- sorry.

16 There are many instances of Parkinson's
17 disease that we cannot explain, correct?

18 MR. BARR: Object to form.

19 A. Correct. Yes, correct. I will leave it
20 there.

21 Q. Did you consider the fact that the cause of
22 most cases of Parkinson's disease is unknown in
23 performing your differential diagnosis in this
24 litigation?

25 MR. BARR: Object to form.

1 A. Again, most cases being uninvestigated,
2 yes.

3 Q. Did you consider that the cause of
4 Mr. Peterson's Parkinson's disease could be unknown?

5 MR. BARR: Object to form.

6 A. Yes.

7 Q. Did you consider that the cause of
8 Mr. McElhiney's Parkinson's disease could be
9 unknown?

10 MR. BARR: Object to form.

11 A. Yes.

12 Q. And you, ultimately, concluded that the
13 cause of Mr. Peterson's Parkinson's disease was not
14 unknown, correct?

15 A. I, ultimately, concluded that it was at
16 least as likely as not caused by his exposure.

17 Q. And you, ultimately, concluded that the
18 cause of Mr. McElhiney's Parkinson's disease was not
19 unknown, correct?

20 A. Again, I, ultimately, concluded that it was
21 at least as likely as not caused due to his
22 exposure.

23 Q. And what do you see as the distinction
24 there?

25 A. It's kind of a double negative in my mind

1 in the sense that we are saying that -- I'm saying
2 that this is -- that this cause in this particular
3 case is at least as likely as not caused by his
4 exposure, which would include the possibility of,
5 let's say, 49 percent that that cause is unknown.

6 So, to me, it just seems that the way you
7 had phrased it, or at least the way I heard or
8 understood your phrasing, it just seemed like a
9 double negative to me.

10 Q. Are you confident that the cause of
11 Mr. Peterson's Parkinson's disease must have been
12 one or a combination of the risk factors that you
13 considered in your report?

14 MR. BARR: Object to form.

15 A. At least as likely, yes. I'm confident in
16 my opinion that this risk factor is at least as
17 likely causal.

18 Q. When you say this risk factor, are you
19 referring to a specific risk factor?

20 A. The exposure to TCE.

21 Q. And you hold that opinion to the standard
22 of at least as likely as not, correct?

23 A. Correct.

24 Q. Are you confident that the cause of
25 Mr. McElhiney's Parkinson's disease must have been

1 one of or a combination of the risk factors you
2 considered in your report?

3 MR. BARR: Object to form.

4 A. To the same standard, yes.

5 Q. And that standard was at least as likely as
6 not, correct?

7 A. Correct.

8 Q. Are you confident -- sorry.

9 Is it possible that either individual's
10 Parkinson's disease was caused by a genetic
11 mutation?

12 MR. BARR: Object to form.

13 A. I think unlikely. When you say possible,
14 are you talking about -- I would ask you a
15 percentage on this one, what percentage are you
16 considering as possible?

17 Q. Just is it possible in your mind that
18 Mr. Peterson's or Mr. McElhiney's Parkinson's
19 disease could have been caused by a genetic
20 mutation?

21 MR. BARR: Object to form.

22 A. Well, in medicine we -- well, I will just
23 leave it as anything is possible, but unlikely.

24 Q. Is it possible that Mr. Peterson's or
25 Mr. McElhiney's Parkinson's disease was caused by

1 risk factors other than you listed in your report?

2 MR. BARR: Object to form.

3 A. I think that's the less likely than -- see
4 if I can say it correctly. Less likely than not.

5 Q. Has Mr. Peterson had any genetic testing
6 for Parkinson's disease?

7 A. Not that I'm aware of.

8 Q. Has Mr. McElhiney had any genetic testing
9 for Parkinson's disease?

10 A. Not that I'm aware of.

11 Q. Are you confident that had Mr. Peterson not
12 been stationed at Camp Lejeune, he would have never
13 developed Parkinson's disease?

14 A. Yes, I would answer that by saying that I
15 think it is at least as likely as not that if not
16 but for his exposure to the water at Camp Lejeune,
17 he would not have Parkinson's disease.

18 Q. Are you confident that had Mr. McElhiney
19 not been stationed at Camp Lejeune, he never would
20 have developed Parkinson's disease?

21 MR. BARR: Object to form.

22 A. Yes, same answer.

23 Q. Mr. McElhiney has a long history of
24 musculoskeletal pain, correct?

25 A. Correct.

1 Q. And if you turn to Page 13 of your report
2 on Mr. McElhiney.

3 A. Okay.

4 Q. The fourth full paragraph, it starts with
5 "it is"?

6 A. Yes.

7 Q. "It is noted that Mr. McElhiney has a long,
8 well-documented history of musculoskeletal issues
9 including back pain, joint pain, leg pain,
10 neuropathy, and knee pain that predated
11 Mr. McElhiney's diagnosis with Parkinson's disease."

12 Did I read that correctly?

13 A. Yes.

14 Q. And that is a quote, correct?

15 A. Correct.

16 Q. Where did that quote come from?

17 A. One of his treating physicians who also
18 agrees with the diagnosis that he has Parkinson's
19 disease. I think, actually, all of his treating
20 physicians agreed with that diagnosis, but I failed
21 to reference which one of those. But it's from one
22 of his treating physicians.

23 Q. And you don't remember which treating
24 physician stated that?

25 A. I don't recall as I sit here.

1 Q. Okay. And turning to Page 3 of that
2 report, if you look under the methodology title,
3 there's an indented section. Do you see that?

4 A. Yes.

5 Q. And the sentence in the middle says,
6 "Estimated total months of exposure --" actually, I
7 think that's a full thing, so let's start at the
8 beginning.

9 "Exposure dates. First month: June 1972.
10 Last month: October 1988. Estimated total months
11 of exposure: 99 months from living or working at
12 Hadnot Point, main side barracks, or in Tarawa
13 Terrace."

14 Did I read that correctly?

15 A. Correct.

16 Q. So you estimate his exposure to be a total
17 of 99 months, correct?

18 A. Correct.

19 Q. And you stated that this is substantial
20 exposure, correct?

21 A. Correct.

22 Q. Is your definition of substantial based on
23 the amount of time Mr. McElhiney was at Camp
24 Lejeune?

25 MR. BARR: Object to form.

1 A. Time and level of exposure in the sense of
2 levels that were documented in the testing of the
3 waters. So those are two factors that both go into
4 that consideration.

5 Q. And did you look to see what the levels
6 were during those 99 months that Mr. McElhiney was
7 on base?

8 A. Yes.

9 Q. And where did you look for that
10 information?

11 A. In the tables of Dr. Kelly.

12 Q. Dr. Kelly Reynolds?

13 A. Yes, that's it.

14 Q. You did not do any independent verification
15 of what the levels were, correct?

16 A. I didn't, correct.

17 Q. If Mr. McElhiney was not exposed to
18 contaminated water for 99 months, would that impact
19 your analysis?

20 MR. BARR: Object to form.

21 A. It would depend, right, if you said that --
22 taking the extremes, if you said it was really zero
23 months, it would very much impact it. If you said
24 it was 98.5 months, it wouldn't. So there's a
25 continuum there where I could not necessarily, as I

1 sit here, draw a point on. So the answer to that
2 would be it would depend on what level of
3 non-exposure that you would be referring to.

4 Q. Would it be important in your analysis to
5 understand what that duration of exposure was?

6 MR. BARR: Object to form.

7 A. You know, not really. I mean, we know --
8 the evidence -- in my opinion, the evidence is so
9 strong that TCE can cause cell death in the
10 literature and the scientific literature in animals
11 that really reproduces that that we see in
12 Parkinson's. That there really, in essence, is no
13 safe level, so the question comes down to individual
14 variability.

15 And so I couldn't tell you or I couldn't
16 give you an estimate right now if you were saying,
17 geez, it wasn't 99 months, it was 45 months. He's
18 still exposed to toxic -- to levels of a chemical
19 that we know can produce this disease. So the
20 amount of time, or if I'm understanding what you are
21 asking, that I would reduce that to before it
22 changed my opinion, I can't say as I sit here.

23 Q. Are you aware that there were water systems
24 at Camp Lejeune that did not receive contaminated
25 water?

1 A. Yes.

2 Q. If Mr. McElhiney spent time at parts of
3 Camp Lejeune that were not receiving contaminated
4 water, would that impact your analysis?

5 MR. BARR: Object to form.

6 A. No.

7 Q. You would not take that into consideration
8 that he had time periods where he was not exposed?

9 MR. BARR: Object to form.

10 A. I'm not saying I wouldn't take it into
11 consideration, but as I sit here today, I would say
12 that would not change my opinion, that if you said
13 that geez, for one month, he was getting water or
14 for one year, I know he actually went to Japan for a
15 bit, it doesn't change my opinion that he was still
16 exposed to significant levels of a chemical that I
17 felt -- I feel has pretty much shown to be a
18 neurotoxin.

19 Q. And the duration of exposure does not come
20 into your analysis of what is a significant level;
21 is that correct?

22 MR. BARR: Object to form.

23 A. It does in the sense that, again, I relied
24 on estimates in the general causation reports, but
25 in humans, exposure is exposure. And we don't have

1 enough data to say what is the difference in whether
2 the odds that a person or when a person even more
3 specifically develops Parkinson's disease, if they
4 had two years at ten times the upper limit level
5 versus 20 years at two times or ten years at two
6 times the upper limit of level. We just don't have
7 that granularity in human people because you can't
8 do experiments in people.

9 Q. Where does the 99-month calculation come
10 from?

11 MR. BARR: Objection. Asked and
12 answered.

13 A. That came from my addition as I was reading
14 through the deposition and trying to put dates
15 together.

16 Q. Are you aware that Mr. McElhiney spent
17 significant amounts of time between 1972 and
18 December 1987 stationed away from Camp Lejeune?

19 MR. BARR: Object to form.

20 A. Can you define significant? Sorry. I
21 didn't mean to say that.

22 Q. I can take away the word significant there.

23 A. Yes, thank you. I was pointing out that
24 significant is subjective. Yes, I'm aware that he
25 was stationed sometimes in Japan, I think, or

1 somewhere else, or maybe twice in Japan, but yes,
2 I'm aware of that.

3 Q. I'm going to go ahead and enter Exhibit
4 Number 13. I'm going to hand you Exhibit Number 13.

5 (Exhibit Number 13 was marked for
6 identification.)

7 A. Thank you.

8 BY MS. PLATT:

9 Q. And for the record, I have two tabs --
10 well, I will say this first. I handed you Exhibit
11 Number 13, which is the expert report of Dr. Kelly
12 Reynolds, correct?

13 A. Correct.

14 Q. And for the record, I have two yellow tabs
15 in this document. The first one is noting
16 Mr. McElhiney's exposure chart in the appendix, and
17 that would be appendix 21.

18 Do you see that?

19 A. Yes, I see that.

20 Q. And the second one is Mr. Peterson's
21 cumulative exposure chart, which is appendix number
22 22.

23 A. That's correct.

24 Q. There's no page numbers in this appendix,
25 so I figured it would be easier to have those

1 flagged.

2 A. Thank you.

3 Q. Dr. Barbano, did you rely on Dr. Kelly
4 Reynolds' report in evaluating Mr. McElhiney's
5 exposure to TCE and PCE?

6 A. Yes.

7 Q. Are you aware that Dr. Reynolds created a
8 chart for each plaintiff reflecting her opinion
9 about when they were at Camp Lejeune?

10 A. Yes.

11 Q. So let's go to Mr. McElhiney's section in
12 Dr. Reynolds' report.

13 A. Okay.

14 Q. And if you turn back a couple of pages to
15 the first chart in that appendix for Mr. McElhiney.

16 A. Okay. They are kind of small, I might need
17 those cheaters again.

18 MR. BARR: You might need a
19 magnifying glass. I'm not sure if those
20 will help.

21 A. I'm on the first chart.

22 Q. Is this the series of charts for
23 Mr. McElhiney that you have reviewed before?

24 A. Yes.

25 Q. And if you look about two-thirds of the way

1 down on the first chart, you see there's an entry
2 for 10/1/1977 through 10/20/1977. Do you see that?

3 MR. BARR: I hope he can see it. I
4 can't.

5 A. I'm sorry. Can you give me those again?

6 Q. 10/1/1977 --

7 MR. BARR: Do you mean 77 or 72?

8 A. Oh, I found it right next to my finger.

9 Okay.

10 Q. You see that one?

11 A. Yes, I do.

12 Q. And the next entry is 8/29/1986?

13 A. Yes, I see that.

14 Q. Do you understand why there's no entries
15 between 10/20/1977 and 8/29/1986?

16 A. I don't know exactly.

17 I assume there's -- well, I don't know.

18 Q. And you met with Dr. Reynolds about her
19 opinions, correct?

20 A. I spoke with her by phone.

21 Q. Okay. Is it your understanding that these
22 charts represent when Dr. Reynolds determined if
23 somebody was or was not exposed to chemicals at Camp
24 Lejeune?

25 A. Yes, that's my understanding.

1 Q. If you go up in the chart, you will see
2 there are other gaps in the time for Camp Lejeune as
3 well. Do you see that?

4 A. I don't. I'm having trouble seeing it, but
5 I will take your word for it.

6 MR. BARR: We are only referring to
7 this one chart, right?

8 MS. PLATT: Yes.

9 A. We are still on the first chart in that
10 section.

11 BY MS. PLATT:

12 Q. Yes.

13 A. Okay. Yes, I will take your word for it.

14 Q. And if you go to the bottom of that chart,
15 do you see the fourth column has a bolded number at
16 the very bottom? Do you see that?

17 A. Yes, it looks like a 1 point something, or
18 a 1 comma. Is that the one you are speaking of?
19 The three blanks and a bold number?

20 Q. Yes.

21 A. Yes, I can see that.

22 Q. It looks 1,100?

23 A. I would say that looks correct.

24 Q. And that column is total days, correct?

25 A. Yes.

1 Q. Is it your understanding that this is
2 Dr. Reynolds' calculation for the total number of
3 days that Mr. McElhiney was exposed to contaminated
4 water at Camp Lejeune?

5 MR. BARR: Object to form.

6 A. I think that that is -- the top of that
7 column in orange, if I can -- if I'm reading that
8 right, it looks like total days HP, which I assume
9 means Hadnot Point. So when you say total days, I
10 would assume that would include the other locations
11 as well, so --

12 MR. BARR: Counsel, do we have a
13 copy of this we can read? I mean, this
14 is really unfair. I mean, you're asking
15 him questions about a chart with a lot
16 of data on it that nobody in this room
17 can read.

18 MS. PLATT: I'm using the expert
19 report that you produced in this
20 litigation.

21 MR. BARR: You have in electronic
22 format. You can pull up the
23 spreadsheets and look at them where we
24 can't.

25 MS. PLATT: I think we are doing

1 fine as is.

2 MR. BARR: Well, he's clearly
3 saying he can't read this.

4 MR. BARR: So I'm going to object.
5 Until we can get a document that he can
6 actually read, I'm going to object to
7 this whole line. But go ahead.

8 MS. PLATT: Okay. Your objection
9 is noted, but, again, this is the report
10 that you produced in this litigation,
11 this is how you produced the report, and
12 if I would have changed it, you would
13 have had an objection to that.

14 MR. BARR: I would not have had a
15 problem with you showing a spreadsheet
16 that people can actually read.

17 BY MS. PLATT:

18 Q. Is 1,100 days approximately 37 months?

19 MR. BARR: Objection to form.

20 A. It sounds about right, yeah.

21 Q. And that's 62 fewer months than the
22 90 months you listed in your report, correct?

23 MR. BARR: Objection to form.

24 A. Again, I think that is Hadnot Point, not
25 total Camp Lejeune.

1 Q. Let's look at the next column. There's no
2 total days beyond that, correct?

3 MR. BARR: You are representing as
4 an officer of the Court what this chart
5 says?

6 MS. PLATT: No, I'm asking him a
7 question as I just phrased it.

8 A. Can you repeat the question, please?

9 BY MS. PLATT:

10 Q. Yeah. Do you see the cell next to 1,100 is
11 blank?

12 A. Yes, correct.

13 Q. And the next one is also blank, correct?

14 A. The one after 1,100 is blank, correct.

15 Q. And so that appears to be 1,100 as the
16 total days that Dr. Reynolds calculated for
17 Mr. McElhiney for exposure, correct?

18 MR. BARR: Object to form.

19 A. Well, that second column next to it has a
20 different title, and it says total days of -- and I
21 -- there's numbers in that column, so I don't know
22 why that is blank because, obviously, there's
23 numbers -- you will agree, there's numbers in that
24 -- we are talking about the fifth column, right?

25 Fifth column, there's -- when we do the

1 bottom of that table, there is three blanks, and
2 then there's 1,100, and then the blank. And you are
3 asking me about there being a blank in that
4 summation where there's clearly numbers in that
5 summation, but I can't read the last word of the
6 title of that column.

7 It looks to me, "total days HP," which I
8 know stands for Hadnot Point, and then I don't know
9 what that second word is. Can you read that? The
10 third word of that column.

11 Q. It looks to me like residential. Does it
12 look to you like residential?

13 A. Oh, yeah. Now that you say that, that
14 sounds about right. Hadnot Point residential. So I
15 don't know why those were not added up. You would
16 have to ask Dr. Kelly that.

17 Q. And you reviewed a copy of Dr. Reynolds'
18 report in writing your expert report, correct?

19 A. Correct.

20 Q. Did you receive that electronically?

21 A. Yes.

22 Q. And so you had the opportunity to review
23 these charts electronically, correct?

24 A. Correct.

25 Q. Okay. If we turn in the charts to four

1 pages, there's one titled, "Summed Variable Totals."
2 Do you see that? Go two more. There you go.

3 A. Oh, yes, summed variable totals. That's
4 legible. That's the one that's actually tabbed.

5 Q. And so this chart is titled, "Summed
6 Variable Totals," correct?

7 A. Correct.

8 Q. And you rely on Dr. Reynolds' chart for
9 what you state is details of reasonable estimated
10 dose of ingestion exposure for Mr. McElhiney,
11 correct?

12 A. Correct.

13 Q. And the first column of this chart in
14 Dr. Reynolds' report lists the contaminants of
15 concern, correct?

16 A. Correct.

17 Q. And what is the next column?

18 A. The next column is the cumulative
19 consumption based on one liter per day.

20 Q. And what is the column -- sorry.

21 How did Dr. Reynolds calculate the mean
22 monthly concentrations?

23 MR. BARR: Object to form.

24 A. You would have to ask her on her
25 methodology.

1 Q. You do not know?

2 MR. BARR: Object to form. Asked
3 and answered.

4 A. I do not know.

5 Q. Have you ever seen exposure assessments
6 presented in terms of cumulative micrograms per
7 liter per month before?

8 A. You know, I'm sure I have. Although I
9 can't tell you exactly where, but I'm sure I have.

10 Q. You just cannot recall?

11 A. I just can't recall.

12 Q. Okay. And do you see the second -- sorry,
13 the third column is titled, "Chart 1, 1-L."

14 Do you see that?

15 A. Chart 1, 1-L. That's the one liter.

16 Q. What does that column show?

17 A. The cumulative consumption of 1 liter of
18 water per day.

19 Q. For Mr. McElhiney, Dr. Reynolds calculated
20 micrograms per liter per month separately for Hadnot
21 Point and Tarawa Terrace, correct?

22 A. Correct.

23 Q. And then, she combined the total amounts,
24 correct?

25 A. Correct.

1 Q. And if we move over one column to chart 2,
2 what does chart 2 tell us?

3 A. That tells us the cumulative consumption
4 based on the ATSDR estimates of water consumption.

5 Q. What ATSDR estimate is that?

6 A. I'm not sure which one that refers to.

7 Q. So you do not know what assumption is being
8 used here?

9 A. Just the ATSDR assumptions, but I don't
10 know the source of that assumption.

11 Q. And so you, sitting here today, cannot
12 verify whether that assumption is appropriate for
13 Mr. McElhiney, correct?

14 A. That's correct.

15 Q. And moving on to chart number 3, that
16 column that's titled "Chart Number 3," what is that
17 column telling us?

18 A. That's telling the cumulative consumption
19 based on estimates based on his deposition. During
20 his deposition, he discussed estimates of how much
21 water he was drinking.

22 Q. And you reviewed Mr. McElhiney's
23 deposition, correct?

24 A. I did, yes.

25 Q. Did you verify that your understanding of

1 his water consumption in the deposition matched
2 Dr. Reynolds' understanding of water consumption in
3 the deposition?

4 A. I didn't do an independent calculation.

5 Q. And then, the final column is titled,
6 "Chart 4." What does chart 4 show?

7 A. Cumulative consumption of water based on
8 the marine field manual estimates.

9 Q. And do you know the specific assumptions
10 that Dr. Reynolds used for Mr. McElhiney from the
11 field manuals?

12 A. No, I don't know the specifics.

13 Q. So sitting here today, you cannot verify
14 whether the assumptions were appropriate for
15 Mr. McElhiney, correct?

16 A. That's correct.

17 Q. Dr. Reynolds did not perform a risk
18 assessment, correct?

19 MR. BARR: Object to form.

20 A. Not that I see here.

21 Q. She didn't characterize the plaintiffs'
22 risk from exposure to contamination, correct?

23 MR. BARR: Object to form.

24 A. Again, I can't testify as to what she did
25 or did not do, but I don't see it here.

1 Q. And Dr. Reynolds did not calculate excess
2 lifetime cancer risk, correct?

3 MR. BARR: Object to form.

4 A. Same answer. I don't see it, I didn't see
5 that from her, but I can't testify as to what she
6 did or did not do.

7 Q. Dr. Reynolds did not calculate
8 Mr. McElhiney's margins of exposure, correct?

9 MR. BARR: Object to form.

10 A. Same answer. I do not see that here.

11 Q. Did Dr. Reynolds consider exposure
12 information from animal or epidemiological studies?

13 MR. BARR: Object to form.

14 A. Not that I'm aware of.

15 Q. Okay. Let's turn back to your report on
16 Mr. McElhiney.

17 A. Okay.

18 Q. You can set aside Dr. Reynolds' report. If
19 you want to turn to Page 15.

20 A. I'm sorry. 15?

21 Q. Yes.

22 A. Okay.

23 Q. And the same discussion is in
24 Mr. Peterson's report on Page 15.

25 A. Okay.

1 Q. And I'm specifically referring to the
2 fourth paragraph that begins "Studies." Do you see
3 that?

4 A. Okay.

5 Q. And that's in both reports, correct?

6 A. Correct, yes.

7 Q. You state that, "TCE monthly median levels
8 at Camp Lejeune were 366 micrograms per liter,"
9 correct?

10 A. Correct.

11 Q. Where did that number come from?

12 A. I believe that came from the Goldman
13 article.

14 Q. Which Goldman article?

15 A. The 2024.

16 Q. And do you know how Dr. Goldman calculated
17 that number?

18 MR. BARR: Object to form.

19 A. No.

20 Q. Did you do anything to verify that
21 Dr. Goldman adequately calculated that number?

22 MR. BARR: Object to form.

23 A. No.

24 Q. And then, the second sentence of that
25 paragraph, you state, "Calculated median cumulative

1 exposure during that ten-year period was 4,970
2 micrograms per liter, greater than 50-fold the
3 permissible level," correct?

4 A. Correct.

5 Q. And how was that number calculated?

6 A. That number was calculated by Dr. Goldman.

7 Q. From the 2024 study?

8 A. Correct.

9 Q. And, again, did you do anything to verify
10 that number was correct?

11 A. No.

12 Q. And then, if you go on to the next
13 sentence, "Incorporating such studies and using
14 conservative estimates, it is calculated that a
15 cumulative dose of 150 milligrams, 150,000
16 micrograms of TCE is sufficient to increase the
17 incidents of Parkinson's disease with a latency of
18 30 to 50 years," correct?

19 A. Correct.

20 Q. And how is this number calculated?

21 A. That number was calculated by Dr. Miller in
22 his expert report. I don't know the methodology he
23 used.

24 Q. And you reviewed Dr. Miller's report?

25 A. Correct.

1 Q. Does that number take into account body
2 weight?

3 A. I don't know that.

4 Q. And if you turn to Page 16 of
5 Mr. McElhiney's report.

6 A. Okay.

7 Q. You're referencing Dr. Reynolds' report in
8 that first paragraph, correct?

9 A. Correct.

10 Q. So in reference to Dr. Reynolds' report and
11 the chart, you state, "It can be seen that
12 Mr. McElhiney's cumulative oral dose of TCE is well
13 over the conservative estimate to cause disease in
14 two of the three exposure assumption scenarios, and
15 in the third minimally below," correct?

16 A. Correct.

17 Q. This does not account for the first column
18 of cumulative consumption, correct?

19 A. Correct.

20 Q. That would be well below the calculated
21 150,000 micrograms conservative estimate, correct?

22 MR. BARR: Object to form.

23 A. The first column, correct, that's the --
24 that was the initial standard of one liter of water
25 per day.

1 Q. And you didn't note in the text of your
2 report that you ignored that first column, correct?

3 MR. BARR: Object to form.

4 A. That first column is irrelevant. It's
5 there just as one of the given standards, but that,
6 again, is -- it's another a -- it's not actually a
7 scenario, it's just the total number given on --
8 just to give a rate, a proportion, who should I say?
9 To put some numbers to a liter of water. But the
10 other scenarios involve estimates of what people
11 actually drank, of what Mr. McElhiney actually
12 drank.

13 So that's the real data. I didn't put that
14 first column in the report because it doesn't add
15 any -- it doesn't add any significance to the
16 opinion one way or the other.

17 Q. The scenario 1 column and scenario 3 column
18 are based off of assumptions, correct?

19 MR. BARR: Object to form.

20 A. All three are based on assumptions.

21 Q. So they are not based off of actual data of
22 what Mr. McElhiney drank while on base at Camp
23 Lejeune, correct?

24 MR. BARR: Object to form.

25 A. I don't think anyone could actually measure

1 what someone drank 20 years ago in actuality, so
2 they will, by necessity, have to be an assumption.

3 Q. And then, in that first paragraph on
4 Page 16, the second-to-last sentence, you state,
5 "Animal models indicate that inhalation exposure to
6 TCE is equal if not even more toxic."

7 Do you see that?

8 A. Yes.

9 Q. Did I read that correctly?

10 A. Yes, you did.

11 Q. And you do not have a citation for this
12 sentence, correct?

13 A. I do not know.

14 Q. What is your basis for this statement?

15 A. One of the articles that I had read.

16 Q. And which article was that?

17 A. I don't have that documented.

18 Q. In the second paragraph on Page 16, you
19 state, "Furthermore, he was also exposed to an
20 estimated cumulative exposure of PCE of 84 to over
21 130 milligrams," and in parentheses wrote, "Likely
22 to be additive in your effects."

23 Did I read that correctly?

24 A. Yes.

25 Q. And you do not have a citation to that

1 statement, correct?

2 A. It's sort of explained in the next sentence
3 that PCE breaks down to TCE, so there would be no --
4 in my mind, no reason not to expect that PCE would
5 be, ultimately, additive in its toxicity.

6 Q. PCE does not break down to TCE in the body,
7 correct?

8 A. I think they are -- I'm not positive. I
9 think they are both metabolized to the same
10 compound, but I'm not positive about that, so I
11 don't know the answer to your question.

12 Q. But PCE does not turn into TCE in the body,
13 correct?

14 MR. BARR: Object to form. Asked
15 and answered.

16 A. Not that I'm aware of.

17 Q. And PCE and TCE do not break down into
18 vinyl chloride within the body, correct?

19 A. Yeah, right, not that I'm aware of.

20 Q. So any exposure that Mr. McElhiney would
21 have to PCE would not have broken down into TCE or
22 vinyl chloride in his body, correct?

23 A. I think that's probably correct.

24 Q. And then, turning to Page 16 of your
25 report, the last full paragraph, last sentence, it

1 begins "I am." Do you see that?

2 A. Page 16?

3 Q. Yes.

4 A. I have "the latency" as the last paragraph
5 on Page 16.

6 MR. BARR: You mean the last full
7 paragraph?

8 MS. PLATT: The last full
9 paragraph.

10 A. Oh, the second-to-last sentence there.

11 BY MS. PLATT:

12 Q. Yes.

13 A. "I am able"?

14 Q. Yes.

15 A. Yes.

16 Q. You say, "I'm able to rule out PCE or TCE
17 exposure at any other location as there is no
18 evidence documenting exposure to PCE or TCE outside
19 of Camp Lejeune either in his other jobs or
20 recreational activities."

21 Did I read that correctly?

22 A. Yes, you did.

23 Q. Are you aware that Mr. McElhiney testified
24 during his deposition that he handled solvents as
25 part of his work in the motor pool and as a mechanic

1 at Camp Lejeune?

2 A. Yes.

3 Q. Is it possible that Mr. McElhiney could
4 have been exposed to TCE through work?

5 MR. BARR: Object to form.

6 A. Work in the motor pool at Camp Lejeune, or
7 are you talking about work outside of Camp Lejeune?

8 Q. As a mechanic.

9 A. As a mechanic, yeah, I'm not aware of that.

10 Q. But is it possible that Mr. McElhiney could
11 have been exposed to solvents while working as a
12 mechanic?

13 MR. BARR: Object to form.

14 A. Yeah, that's possible.

15 Q. Did you consider that as a potential
16 exposure in writing your report?

17 A. I did not consider that as anything.
18 Again, here, we will use the subjective term
19 significant. My reading of his other jobs was not
20 that he was spending a large amount of time being
21 exposed to solvents in any of his other careers.

22 Q. Are you aware that Mr. McElhiney previously
23 restored cars as a hobby?

24 A. Yes, I have learned that.

25 Q. Is it possible that Mr. McElhiney could

1 have been exposed to TCE through that work?

2 MR. BARR: Object to form.

3 A. I would, again, say it's possible. The
4 extent would be, in my opinion, likely minimal.

5 Q. How do you define minimal?

6 A. I would define minimal as, in my opinion,
7 not substantial enough to be a significant factor in
8 causality.

9 Q. And you previously testified that there was
10 no safe level of exposure to TCE that could not
11 cause Parkinson's, correct?

12 A. That's correct. So I guess I would define
13 minimal as proportional in the sense of the
14 potential exposure to TCE here in the water exposure
15 would greatly outweigh the potential exposure to him
16 restoring cars as a hobby, such that that exposure
17 would be minimal is the way I would probably say it,
18 compared to the exposure here.

19 Q. And you previously testified that you
20 conducted a differential diagnosis of
21 Mr. McElhiney's Parkinson's disease, correct?

22 A. Correct.

23 Q. And in conducting a differential diagnosis,
24 it requires you to consider all relevant risk
25 factors, correct?

1 A. Correct, within reason.

2 Q. On page 18 of Mr. McElhiney's report, under
3 other factors considered, you list that you
4 considered head trauma, genetics, family history,
5 and exposure to other neurotoxins known to cause
6 Parkinson's disease, correct?

7 A. Correct.

8 Q. With respect to head trauma, you referred
9 to two reported incidents of head trauma, correct?

10 A. Correct.

11 Q. And the first one, records indicate that
12 Mr. McElhiney was punched in the nose, correct?

13 A. Correct.

14 Q. And in the second, Mr. McElhiney ran into
15 another person during a softball game, correct?

16 A. Correct.

17 Q. And as you indicated in your report in that
18 second incident, the records note he was knocked out
19 from this event, correct?

20 MR. BARR: Object to form.

21 A. Can you refer me to a statement on that
22 one?

23 Q. Yes.

24 A. I see, it's on Page 19. I see it. He had
25 a history obtained many years later that he was

1 knocked out, but that was not corroborated by the --
2 in this case, I was able to review the
3 contemporaneous medical records, and that was not
4 corroborated.

5 Q. If you look on Page 18?

6 A. Yes.

7 Q. The paragraph that begins "On VA Medical
8 health intake," do you see that?

9 A. Yes.

10 Q. And about halfway down, it states,
11 "Indicating that he reports having felt dizzy and
12 disoriented and a second event where he was knocked
13 out after a collision playing softball," correct?

14 A. Correct.

15 Q. Would you agree that Mr. McElhiney could
16 have had a concussion from this event?

17 A. I think that's unlikely. In the paragraph
18 on Page 18, I'm paraphrasing a note that was taken
19 in 2016. However, in that case, I was able to
20 actually get the medical records and review the
21 contemporaneous medical records of the event, and
22 that -- the contemporaneous medical records would
23 not have indicated that he sustained a concussion.

24 So in my opinion, there's not evidence that
25 he sustained a concussion, if any, as I put here,

1 minimal at best, but really there's not anything
2 that corroborated that history.

3 Q. And you state you could not consider
4 Mr. McElhiney's head trauma in light of his
5 substantial Camp Lejeune water exposure because it
6 would be speculative as a potential cause of
7 Mr. McElhiney's Parkinson's disease, correct?

8 A. Correct.

9 Q. But you have acknowledged that
10 Mr. McElhiney did have head trauma, correct?

11 A. Correct.

12 Q. And you also state Mr. McElhiney had no
13 documented exposure other than his time at Camp
14 Lejeune to other potential neurotoxins that might be
15 contributors to being causative for Parkinson's
16 disease, correct?

17 A. Correct.

18 Q. And as previously discussed, Mr. McElhiney
19 did use solvents in his work as a mechanic, correct?

20 MR. BARR: Object to form.

21 A. By report, yes.

22 Q. And he did previously restore cars as a
23 hobby, correct?

24 MR. BARR: Object to form. Asked
25 and answered.

1 A. Correct.

2 Q. And as we discussed, he could have been
3 exposed to TCE through those activities, correct?

4 MR. BARR: Object to form. Asked
5 and answered.

6 A. Correct.

7 Q. But you did not include these incidents in
8 your report, correct?

9 MR. BARR: Object to form. Asked
10 and answered.

11 A. I did include them. I concluded that they
12 were insignificant and not likely to be related to
13 any can you tell causality. So those were
14 considered and those were minimal, again subjective,
15 but minimal compared to the exposure to the water at
16 Camp Lejeune.

17 We don't know -- you used the term may have
18 been exposed to solvents while repairing cars, he
19 may, he may not have. That's an unknown. And it is
20 really, in my opinion, very unlikely that if he did,
21 he was exposed to any amount that would be
22 significant compared to this exposure.

23 The same thing with the head trauma, he had
24 some head trauma. He would -- the medical records
25 would not even indicate he even sustained a

1 concussion. But, again, the proportionality of
2 those events, the unknown exposure during car
3 repair, the undocumented concussion, the reason I
4 say speculative is because that's kind of just
5 pulling things out of a hat in my mind. Whereas it
6 is not speculative that he was exposed to these
7 levels at Camp Lejeune, that he was exposed to TCE
8 at Camp Lejeune.

9 Q. Do we have sampling data that Mr. McElhiney
10 was, in fact, exposed to contaminants at Camp
11 Lejeune?

12 MR. BARR: Object to form.

13 A. Do we have any data that he actually drank
14 that water?

15 Q. Any contaminants at Camp Lejeune?

16 MR. BARR: Object to form.

17 A. We know that the water was -- we have
18 objective data that shows it was contaminated, we
19 have his deposition that he drank the water, so I
20 think it's a reasonable assumption that he was
21 exposed to that water.

22 I don't know of anyone who has pictures or
23 documents that he actually drank it, but I think it
24 would be -- I think it would be unreasonable to
25 assume that he didn't.

1 Q. And as we previously discussed,
2 Mr. McElhiney has been diagnosed with PTSD, correct?

3 A. Correct.

4 Q. And the literature shows that PTSD is a
5 risk factor for Parkinson's disease, correct?

6 MR. BARR: Object to form, asked
7 and answered.

8 A. Yes, as we discussed before, I would like
9 to separate risk factors that are likely causal as
10 opposed to risk factors that are comorbid.

11 Q. I understand.

12 A. Okay.

13 Q. So we are going to go through some risk
14 factors and I'm going to reference the literature.

15 A. Sure.

16 Q. On these risk factors understanding that
17 you may disagree with that literature; is that fair?

18 A. Sure. I may not actually disagree with the
19 literature, but more likely disagree with any
20 conclusions that they either are relevant in his
21 case.

22 Q. Okay.

23 A. And we can go through those.

24 Q. Are you aware that Mr. McElhiney has a
25 history of gastroesophageal reflux disease?

1 A. Yes.

2 Q. And the literature shows that
3 gastroesophageal reflux disease is a risk factor for
4 Parkinson's disease, correct?

5 MR. BARR: Object to form.

6 A. Again, here we are going to get into the
7 question of is that medically, pathologically
8 plausible as a cause. So again, when we talk about
9 risk factors, there's the issue of trying to
10 separate what are associations and what are causal
11 risk factors.

12 There's -- in fact, if we wanted to talk
13 about his having GERD, that often involves a
14 compromise of the stomach lining, which potentially
15 could allow ingested toxins even more access. But I
16 wouldn't even necessarily go there.

17 I would just say yes, he's had GERD, yes,
18 there's an association between GERD and Parkinson's
19 disease, but no, I do not think it is causally
20 related in this case.

21 Q. And Mr. McElhiney has been diagnosed with
22 anxiety and depression, correct?

23 A. Correct.

24 Q. He's been diagnosed with dermatitis,
25 correct?

1 A. Correct.

2 Q. He's been diagnosed with herpes zoster,
3 correct?

4 A. Correct.

5 Q. He's been diagnosed with rosacea?

6 A. Correct.

7 Q. He's been diagnosed with hearing loss,
8 correct?

9 A. Correct.

10 Q. He's been diagnosed with prediabetes,
11 correct?

12 A. Correct.

13 Q. He's been diagnosed with B-12 deficiency,
14 correct?

15 A. Correct.

16 Q. He is a man, correct?

17 A. Correct.

18 Q. He has an advanced age, correct?

19 MR. BARR: Object to form.

20 A. Correct.

21 Q. He's been diagnosed with eczema, correct?

22 A. Correct.

23 Q. He's been diagnosed with sleep apnea,
24 correct?

25 A. Correct.

1 Q. And he has a -- has had a sedentary
2 lifestyle, correct?

3 A. Correct.

4 MR. BARR: Object to form.

5 Q. So we just went through 14 factors,
6 correct?

7 A. 14 --

8 MR. BARR: Object to form.

9 A. 14 issues that he has been diagnosed with,
10 correct.

11 Q. And did you consider those 14 factors in
12 writing your report?

13 A. Yes.

14 MR. BARR: Object to form.

15 THE WITNESS: Sorry.

16 BY MS. PLATT:

17 Q. And where are those in your report?

18 A. They are in the statement that says I
19 reviewed his records and these are the ones that --
20 these are the factors that I considered potentially
21 reasonable in coming up with causality.

22 The majority of those that you have
23 referenced or just mentioned, I have reviewed that
24 literature and I know that those are coming from the
25 report of Dr. Young and the majority of those are

1 really truly irrelevant. So you might say he has 14
2 factors there, but in my opinion, the only ones that
3 are relevant here would be his family history, his
4 head trauma worth considering, and other potential
5 toxins. So I did consider them, and I just
6 discarded them as a group.

7 Q. And the part of your report that you are
8 referring to is Page 18, correct?

9 A. Yes, other factors considered.

10 Q. And the last sentence of that paragraph
11 states, "The other factors I considered were head
12 trauma, genetics/family history, exposure to other
13 neurotoxins known to cause Parkinson's disease,"
14 correct?

15 A. Correct.

16 MS. PLATT: Let's go ahead and take
17 a break.

18 VIDEOGRAPHER: The time on the
19 monitor is 4:00 p.m. We are off the
20 record.

21 (Brief recess.)

22 VIDEOGRAPHER: Time on the monitor
23 is 4:11. This begins media 5. We are
24 on the record.

25 BY MS. PLATT:

1 Q. Dr. Barbano, let's turn to your report on
2 Mr. Peterson, that's Exhibit Number 2.

3 A. Got it.

4 Q. And I want to start with Page 12.

5 A. Okay.

6 Q. At the very top of that page, you write,
7 "The concept of multifactorial also needs to be
8 discussed," correct?

9 A. Correct.

10 Q. And then, the last sentence of that
11 paragraph, "In my opinion, it would be more accurate
12 to say that there is likely multiple factors
13 affecting the development of Parkinson's disease
14 including certain genetic factors and environmental
15 exposures. These factors are not mutually
16 exclusive."

17 Did I read that correctly?

18 A. Yes.

19 Q. And then, two paragraphs below, there's a
20 paragraph that begins "Therefore." Do you see that?

21 A. Yes.

22 Q. "Therefore, in my opinion, whether
23 Mr. Peterson has other risk factors for the
24 development of Parkinson's disease is irrelevant
25 unless they were so overwhelming that his exposure

1 to the contaminated water at Camp Lejeune was
2 noncontributory. In my opinion, that clearly was
3 not the case."

4 Did I read that correctly?

5 A. Yes.

6 Q. What is the scientific threshold for "so
7 overwhelming"?

8 MR. BARR: Object to form.

9 A. That would be my subjective opinion as to
10 what I would think would be so overwhelming. Again,
11 there would be a continuum. And where along that,
12 like many diseases, like many biological events,
13 there's a continuum where along that continuum
14 there's a threshold, it is not always clear. So
15 that's a subjective opinion.

16 Q. And so you don't have any literature to
17 support exactly what so overwhelming would be
18 defined as, correct?

19 A. That's correct.

20 Q. If you determined another risk factor other
21 than TCE was so overwhelming, your opinion that the
22 contaminated water at Camp Lejeune wouldn't -- let
23 me rephrase because I think I got off track there.
24 Let's start over.

25 If you determined another risk factor other

1 than TCE was so overwhelming, in your opinion, that
2 the contaminated water at Camp Lejeune would not
3 contribute to the development of PD; is that
4 correct? Would that become your opinion?

5 MR. BARR: Object to form.

6 A. Potentially.

7 Q. And in the fifth paragraph on Page 12, you
8 reference Dr. Tulio Berterini?

9 A. Yes.

10 Q. And Dr. Bertorini is one of Mr. Peterson's
11 treaters, correct?

12 A. Correct.

13 Q. And in that paragraph, you note a letter
14 written by Dr. Bertorini, correct?

15 A. Correct.

16 Q. And he wrote that letter on November 9,
17 2021, correct?

18 A. '12, 2012.

19 Q. Yes, sorry. November 9, 2012.

20 A. Yes.

21 Q. And you reviewed that letter, correct?

22 A. Yes.

23 Q. And in your report, you state that the
24 letter says, "It is my opinion, within a reasonable
25 degree of medical certainty, that Mr. Peterson's PD

1 could have been caused by his presence at Camp
2 Lejeune and his exposure to, ingest of, and/or
3 contact with that contaminant water," correct?

4 A. Correct.

5 Q. And that was Dr. Bertorini's statement in
6 the letter?

7 A. Correct.

8 Q. And your report goes on to state, "During
9 testimony, Mr. Bertolini reported that in an
10 amendment letter, he offered the opinion that more
11 likely than not, there is an indication that
12 Mr. Peterson's condition of Parkinson's disease
13 resulted from his exposure to the contaminated water
14 at Camp Lejeune," correct?

15 A. Correct.

16 Q. Did you review the deposition transcript of
17 Dr. Bertorini?

18 A. Yes.

19 Q. I'm going to go ahead and mark Exhibit
20 Number 14. I'm handing you -- I'm handing you
21 Exhibit Number 14, which is the deposition
22 transcript of Dr. Bertorini, correct?

23 (Exhibit Number 14 was marked for
24 identification.)

25 A. Correct.

1 BY MS. PLATT:

2 Q. And if you go to Page 78 of this
3 deposition.

4 A. Okay.

5 Q. And if you start at page -- sorry. At
6 Line 1, on Page 78, the question here says, "Looking
7 at Page 3, which is Peterson DBA_250 as the Bates
8 number, I'm going to zoom out. So in here, you
9 state that it is your opinion within a reasonable
10 degree of medical certainty that more likely than
11 not that there is the indication that Mr. Peterson's
12 condition of Parkinson's disease resulted from his
13 exposure to the contaminated water at Camp Lejeune."

14 Did I read that correctly?

15 A. Yes.

16 Q. And that's the same testimony you were
17 referring to in your report, correct?

18 MR. BARR: Object to form.

19 A. I believe so, yes.

20 Q. And then, the Line 8, the question states,
21 "How does this opinion differ from your opinion in
22 the November letter?"

23 Line 10, answer, "I have no idea."

24 Did I read that correctly?

25 A. Yes, you did.

1 Q. So Dr. Bertorini's testimony about this
2 letter is that he has no idea how this letter
3 differs from the previous letter, correct?

4 MR. BARR: Object to form.

5 A. That would be the way I would read that
6 answer, or interpret that answer.

7 Q. And the -- you can set that aside.

8 A. Can I lose the page?

9 Q. Yeah.

10 In your reports on Mr. McElhiney and
11 Mr. Peterson, you applied the standard at least as
12 likely as not, correct?

13 A. Correct.

14 Q. And if you look to your report on
15 Mr. Peterson, Page 13.

16 A. It will take me a second. Okay.

17 Q. The second full paragraph begins "The
18 standard"; do you see that?

19 A. Yes.

20 Q. "The standard to be met in the attribution
21 to Mr. Peterson's Parkinson's disease to his
22 exposure to toxins in Camp Lejeune is at least as
23 likely as not. This level of certainty is provided
24 by prior medical professionals."

25 Did I read that correctly?

1 A. Correct.

2 Q. And you go on to say, "Dr. Kumar simply
3 testifies that he does not know if Mr. Peterson's
4 Parkinson's disease was caused by his exposure to
5 Camp Lejeune, but clarifies he did not investigate,"
6 correct?

7 A. Correct.

8 Q. And this is an example of one medical
9 professional that did not find causation, correct?

10 MR. BARR: Object to form.

11 A. Correct.

12 Q. And then, you continue on to say on the
13 alternative side, there's no evidence provided by
14 Mr. Peterson's many physicians, including at least
15 three neurologists, that Mr. Peterson's Parkinson's
16 disease was not or unlikely to have been caused by
17 the contaminated water at Camp Lejeune, correct?

18 A. Correct.

19 Q. And this is an example of three
20 neurologists at least that have not found causation,
21 correct?

22 MR. BARR: Object to form.

23 A. No. They have not found not causation.
24 They have not ruled against causation, they just
25 have not found causation, which, to me, by

1 definition would be equipoise, or close to the
2 definition.

3 So what they are saying is that -- what I'm
4 saying there is that as we had discussed before,
5 most times treating physicians don't investigate
6 causality. That's kind of an unusual situation. In
7 here, none of them are saying I found a more likely
8 cause than the Camp Lejeune water, and nor are they
9 saying the Camp Lejeune water was not likely a
10 cause.

11 So the default in my mind in interpreting
12 that is that they are saying they are on the fence,
13 they are not saying it was caused, they are not
14 saying it wasn't caused, they are not saying that
15 they found an alternative cause. So to me, that
16 leaves you in that realm of equipoise in which I
17 would, being tasked to do so, would have to decide
18 does this fit that criteria of equipoise.

19 So they are not saying we don't think that
20 the Camp Lejeune water is the cause of
21 Mr. Peterson's Parkinson's disease, so they are not
22 ruling against it. The same thing with Dr. Kumar.
23 He simply testifies he does not know. And, again,
24 going back to the idea of if one doesn't look, one
25 never knows. And it wasn't pertinent, I guess, for

1 him to do -- I can't speak for him.

2 So I will just say he says he does not
3 know, so that leaves the question open, but none of
4 them say yeah, it is unlikely that this is, like,
5 49 percent or below, let's use those terms. It's
6 unlikely that his Parkinson's was caused by his
7 exposure to water at Camp Lejeune. That's what I
8 meant by that sentence.

9 Q. And the next sentence in that paragraph, to
10 conclude the paragraph, you state, "From the records
11 I reviewed, I did not see where Mr. Peterson's
12 physicians engaged in a differential ideology to
13 evaluate the cause of his Parkinson's disease, nor
14 would I have expected them to do so."

15 A. Correct.

16 Q. Okay. So these individuals did not engage
17 in a differential ideology, correct?

18 MR. BARR: Object to form.

19 A. In a differential causality, correct.

20 Q. They did not ask the question, what was the
21 cause of Mr. Peterson's Parkinson's disease,
22 correct?

23 MR. BARR: Object to form.

24 A. They didn't stop and say what are the
25 factors that could have caused his Parkinson's

1 disease. That's the way I would say that.

2 Q. So choosing -- a physician choosing not to
3 investigate the cause of Parkinson's disease
4 automatically reaches the standard of equipoise in
5 your opinion?

6 A. It reaches the standard the standard that
7 they do not have an opinion on the causality.

8 Q. And so no opinion reaches the standard of
9 equipoise in your opinion, correct?

10 MR. BARR: Object to form.

11 A. Yeah, if someone has no opinion, then one
12 can't say one way or the other it's more likely or
13 less likely than not.

14 Q. Let's turn to Page 15.

15 A. Same report?

16 Q. Yes. The second-to-last paragraph, you
17 state, "Mr. Peterson far exceeds that minimum
18 exposure."

19 What minimum exposure are you referring to
20 there?

21 A. The minimal exposures calculated by
22 Dr. Miller and Costa.

23 Q. And what is that amount?

24 A. For Dr. Miller, he estimated a cumulative
25 dose exposure of 150 milligrams; for Dr. Costa, a

1 dose exposure of 366 micrograms per liter for three
2 months or longer.

3 Q. And you conclude that Mr. Peterson exceeded
4 that minimum exposure, correct?

5 A. Correct.

6 MR. BARR: Object to form.

7 Q. What is the basis of that conclusion that
8 you have there?

9 A. Based on a combination of his deposition
10 and the calculations by Dr. Reynolds.

11 Q. And you reviewed Mr. Peterson's deposition
12 transcript, correct?

13 A. Yes.

14 Q. And you know that Mr. Peterson never
15 testified to the exact levels of exposures from Camp
16 Lejeune during that deposition, correct?

17 A. Correct.

18 Q. Are you aware of what Mr. Peterson's
19 occupation on base was?

20 A. Yes.

21 Q. What was it?

22 A. He was an attorney.

23 Q. He was a judge advocate general, correct?

24 A. Correct.

25 Q. If I refer to him as a JAG, will you

1 understand that?

2 A. I will understand that.

3 Q. Great. On Page 15 of your report, the
4 third paragraph, you note ATSDR's assessment for
5 drinking water consumption for a marine in training,
6 correct?

7 A. Correct.

8 Q. But Mr. Peterson was not a marine in
9 training while on base, correct?

10 A. I don't know the technical terms of whether
11 that would be considered training or not. I will
12 agree he was a JAG, but I -- personally, I don't
13 know whether that is considered training.

14 Q. And you would assume that a JAG spends most
15 of the day working in an office or sitting at a
16 desk?

17 MR. BARR: Object to form.

18 A. I would assume that.

19 Q. If we turn the page of your report to
20 Page 16, you have reproduced Dr. Reynolds' chart,
21 correct?

22 A. Correct.

23 Q. And if we look at the second column, which
24 is titled "Chart 2"; do you see that?

25 A. Yes.

1 Q. It shows that Dr. Reynolds applied the
2 civilian worker consumption assumption for
3 Mr. Peterson, correct?

4 A. Correct.

5 Q. And turning to the next column, again in
6 column number 3, Dr. Reynolds applied the civilian
7 worker consumption assumption for Mr. Peterson,
8 correct?

9 A. Correct.

10 Q. And then, the final column titled,
11 "Chart 4," Dr. Reynolds applied the light activity
12 desk work consumption assumption for Mr. Peterson,
13 correct?

14 A. Correct.

15 Q. And Dr. Reynolds never classified
16 Mr. Peterson as a Marine in training, correct?

17 A. Correct.

18 Q. In general, a person living on base would
19 have more opportunity for exposure compared to a
20 person living off base, correct?

21 MR. BARR: Object to form.

22 A. In general, I would say that's a reasonable
23 assumption.

24 Q. Are you aware that Mr. Peterson lived off
25 base for the first nine months of his time stationed

1 at Camp Lejeune?

2 A. I'm not aware of the exact months. I'm
3 aware that he lived off base for some portion of his
4 time, yes.

5 Q. And did you take that into consideration in
6 writing your report?

7 A. I took into consideration these
8 calculations by Dr. Kelly -- by Dr. Reynolds, I'm
9 sorry.

10 Q. Do you know if Dr. Reynolds took into
11 consideration the fact that Mr. Peterson lived off
12 base for the first nine months while he was at Camp
13 Lejeune?

14 A. I believe she did. I believe she has that
15 in her tables, but I can't read them and I can't say
16 for sure.

17 Q. So on Page 16 of your report, the first
18 paragraph under the chart, you state, "As noted
19 above, it has been calculated based on three
20 different scenarios that Mr. Peterson had a
21 cumulative exposure range of 190 milligrams to
22 747 milligrams of TCE," correct?

23 A. Correct.

24 Q. And that statement does not take into
25 account the fact that the first column in

1 Dr. Reynolds' chart indicates that Mr. Peterson's
2 exposure was only 155 milligrams of TCE, correct?

3 MR. BARR: Object to form.

4 Misrepresents the chart.

5 MS. PLATT: Well, let's take a step
6 back.

7 BY MS. PLATT:

8 Q. Column number 1 indicates that Dr. Reynolds
9 calculated Mr. Peterson's exposure to TCE as 155,319
10 micrograms; is that correct?

11 A. I don't believe so. I believe that that is
12 -- that first column number one, is the same -- and
13 we can verify this very quickly by looking at
14 Mr. McElhiney's. I'm going to say that that first
15 column in Dr. Reynolds' chart is the one liter per
16 day standard assumption that we had discussed
17 before. No, those numbers are different.

18 They are different because of the
19 difference in the time that he was at -- between the
20 two claimants here. So this chart number 1, as it's
21 called, represents a hypothetical of one liter per
22 day, and not actually an estimation of
23 Mr. Peterson's consumption, which would have been
24 charts 2, 3, and 4.

25 Q. And all of the consumption assumptions are

1 assumptions in this chart, correct?

2 A. Correct.

3 Q. So the first row in that first column shows
4 the cumulative consumption of TCE, correct?

5 A. The first row going across, correct.

6 Q. And it's 155,319 micrograms, correct?

7 A. In the one liter per day assumption.

8 Q. Yes.

9 A. Yes, correct.

10 Q. Which is roughly the equivalent of
11 155 milligrams of TCE, correct?

12 A. Correct.

13 Q. So going back to the first sentence on
14 Page 16 underneath the chart, you have listed
15 cumulative exposure range of 190 milligrams to
16 747 milligrams of TCE, correct?

17 A. Correct.

18 Q. And that does not take into account the
19 155 milligrams noted in the chart in column 1,
20 correct?

21 MR. BARR: Misrepresents the chart.

22 A. That does misrepresent the chart. Column 1
23 is just a one liter calculation, but that is not an
24 assumption of intake. The assumptions of intake are
25 charts 2, 3, and 4, which range from 190 to 747.

1 That's where those numbers from come.

2 This is just a hypothetical consumption of
3 one liter, but none of those are actually what one
4 would call -- she calls them scenarios, I would call
5 them models, models of intake. She calls them
6 scenarios. So yeah, I wouldn't agree with that
7 because I think that first is just the standard by
8 which those next numbers of reasonable amounts of
9 intake are taken from.

10 Q. And that first column is an exposure
11 calculation by Dr. Reynolds assuming that
12 Mr. Peterson drank one liter of one as his
13 consumption assumption, correct?

14 A. Correct.

15 Q. If we look to the final column in that
16 chart, which is titled "Chart 4," it is an
17 assumption of 5.2 liters consumption a day, correct?

18 A. Correct.

19 Q. And Mr. Peterson never testified to
20 consuming 5 liters of water a day, correct?

21 A. No, he never testified to consuming 1 liter
22 either. So these are -- I think the big picture
23 here is that these scenarios are reasonable amounts
24 of water intake that people need for living, for
25 that take in in these situations.

1 As you said, he wasn't a Marine in
2 training, so these are other potential models or
3 scenarios that take into account a person's physical
4 activity and, in fact, on the field manual it
5 includes considering the weather as well. So it is
6 unlikely that the one liter cumulative consumption
7 has any relevance to any reasonable model or
8 scenario.

9 Q. Looking to the second paragraph on Page 16,
10 the last two sentences.

11 A. Okay.

12 Q. You state, "Mr. Peterson's estimated
13 cumulative dose of PCE exceeds an additional range
14 of 6 to 25 micrograms," correct?

15 A. Correct.

16 Q. "These would only add to the already
17 established toxicity of TCE alone," correct?

18 A. Correct.

19 Q. And what scientific literature are you
20 relying on to conclude the effect of PCE would only
21 add to the toxicity of TCE?

22 A. As we discussed before, PCE is also known
23 to be a neurotoxin. In regards to additive, I think
24 it's a reasonable -- it's a reasonable conclusion
25 that these two very similar and similarly-acting

1 toxins would be additive.

2 Q. And what is your basis for assuming that
3 PCE and TCE are additive?

4 A. General review of the literature.

5 Q. Any study in particular?

6 A. None that I can quote.

7 Q. Are you an expert in pharmacological based
8 co-kinetic modeling?

9 A. No.

10 Q. On Page 18 of your report of Mr. Peterson.

11 A. Okay.

12 Q. Under the heading "head trauma," second
13 paragraph.

14 A. Yes.

15 Q. Third sentence begins with "This"; do you
16 see that?

17 A. Yes.

18 Q. "This single episode of concussion was not
19 notable enough to be reported," and you provide a
20 pin cite to one of Mr. Peterson's records, "or
21 considered as a high enough risk factor for his
22 other treating neurologists, Dr. Bertolini, Lie,
23 Ladeau, and Solay to mention this lone episode of
24 trauma in their formulation of this condition,"
25 correct?

1 A. Correct.

2 Q. And if we turn back to Page 13 of your
3 expert report, second full paragraph, last sentence,
4 you state, "From the records I reviewed, I did not
5 see where Mr. Peterson's physicians engaged in a
6 differential ideology to evaluate the cause of his
7 Parkinson's disease nor would I have expected them
8 to do so," correct?

9 A. Correct.

10 Q. So is it appropriate for you to take the
11 physician's silence on head trauma as an indicator
12 that it was not the cause of Parkinson's disease in
13 their opinion?

14 A. Yes.

15 Q. And why is that an appropriate stance to
16 take?

17 A. Well, you know, if we are dealing with an
18 issue of equipoise, it would be -- it's as important
19 to say that nothing in -- nothing stood out in his
20 history as an alternative strong reasonable cause
21 for his Parkinson's disease. So -- did that make
22 sense or do you want me to explain further?

23 Q. That makes sense.

24 A. Okay. Thank you.

25 Q. And you would not have expected them to

1 engage in a differential ideology, correct?

2 A. That's correct.

3 Q. So you would not have expected them to say
4 anything on head trauma, correct?

5 MR. BARR: Object to form.

6 A. No, that's not correct. I'm sorry. I
7 probably didn't explain myself. If he had
8 significant head trauma, and again I understand
9 significant is subjective, but significant enough in
10 their opinion, then I would have expected them to
11 mention it.

12 So to me, their silence is -- speaks to
13 their not -- that lone episode of head trauma not
14 had risen to their level of attention for them to
15 say, hey, wait a second, this guy has had some
16 really major head trauma. This could be the cause
17 of his Parkinson's.

18 So I realize that what I'm saying is kind
19 of like a double negative, but in the sense that it
20 didn't rise to the level of attention or importance
21 for them to even put that in.

22 Does that make sense?

23 Q. Uh-huh. Turning to Page 20 of your report
24 on Mr. Peterson. At the very top, there is a
25 section titled "Other potential toxins." Do you see

1 that?

2 A. Yes.

3 Q. And you state, "Exposure to pesticides and
4 herbicides are recognized as risk factors for the
5 development of Parkinson's disease," correct?

6 A. Correct.

7 Q. And you go on to say, "He has no known
8 exposure to either of these toxins," correct?

9 A. Correct.

10 Q. Pesticides are used to control pests like
11 mosquitoes, ticks, rats, et cetera, correct?

12 A. Correct.

13 Q. And pesticides are used in agriculture,
14 correct?

15 A. Correct.

16 Q. Are you aware that TCE has been used
17 worldwide for years?

18 MR. BARR: Object to form.

19 A. TCE has been used worldwide for years?

20 Q. Correct.

21 A. I'm sorry. Is that the end of the -- yes,
22 I'm aware that it's been used worldwide for years.

23 Q. Okay. And so you are -- are you aware --
24 sorry.

25 Are you aware that PCE has been used

1 worldwide for years?

2 A. Yes.

3 Q. And so humans are exposed to PCE and TCE in
4 many different ways, correct?

5 MR. BARR: Object to form.

6 A. Yes, likely.

7 Q. So you cannot say for certain that
8 Mr. Peterson was never exposed to these other uses
9 of PCE and TCE, correct?

10 MR. BARR: Object to form.

11 A. It would be pure conjecture. We have no
12 records of him having any exposure.

13 Q. And we previously discussed an article you
14 cited in MedScape, correct?

15 A. Correct.

16 Q. And that article studied TCE exposure in
17 the air around urban areas, correct?

18 A. Correct.

19 MR. BARR: If you want to pull it
20 back out, you can pull it back out.

21 THE WITNESS: I've got it right
22 here.

23 MR. BARR: It's Exhibit 11.

24 BY MS. PLATT:

25 Q. Do you have it?

1 A. Yes.

2 Q. And Mr. Peterson lives in Memphis, correct?

3 A. That's my understanding, correct.

4 Q. And Mr. McElhiney lives in Nashville,
5 correct?

6 A. Yes.

7 Q. And Mr. Peterson has lived in Memphis for
8 most of his adult life, correct?

9 A. Correct, as far as I know.

10 Q. So you cannot say for certain that
11 Mr. Peterson was not exposed to TCE in the air
12 around Memphis, correct?

13 MR. BARR: Object to form.

14 A. For certain, correct.

15 Q. And Mr. McElhiney has lived in Memphis for
16 most of his adult life, correct?

17 MR. BARR: Object to form.

18 A. McElhiney in Memphis?

19 Q. Sorry. Mr. McElhiney has lived near
20 Nashville for most of his adult life, correct?

21 A. Correct.

22 Q. So you cannot say for certain that
23 Mr. McElhiney was ever exposed to TCE in the air
24 around Nashville, correct?

25 MR. BARR: Object to form.

1 A. Not for certain.

2 Q. You do not consider any other risk factors
3 for Mr. Peterson, correct?

4 A. No, that's not correct. For Mr. Peterson,
5 we considered family history, we considered his head
6 trauma, and I believe -- when you say considered
7 them, you mean considered them important or just
8 considered?

9 Q. Considered in your report.

10 A. Yeah, I considered all of those other
11 diagnoses that he had, I guess, comorbid diagnoses,
12 his depression, I think I mentioned mood in my
13 report. The trauma, family history, yeah, I
14 considered a number of -- yes, demographics and
15 other -- yeah, I did consider other causes.

16 Q. Did you consider impaired fasting and
17 glucose diabetes?

18 MR. BARR: Form.

19 A. Yeah, I do not consider that a risk factor
20 in this situation.

21 Q. So it's not in your report on Mr. Peterson?

22 A. Correct, only in the broadest terms of I
23 have looked at his -- the entirety of his medical
24 history and did not consider any significant, except
25 those enough to evaluate and write about. So, you

1 know, if he broke his ankle, I would not consider
2 that significant. I wouldn't put that necessarily
3 in a report like this.

4 Q. And Mr. Peterson has been diagnosed with
5 GERD, correct?

6 A. Correct.

7 Q. And you did not consider that in your
8 expert report, correct?

9 A. No. Again, I considered it, but did not
10 put it in the report because I did not think it was
11 relevant.

12 Q. And Mr. Peterson has been diagnosed with
13 herpes, correct?

14 A. Correct.

15 Q. And you did not consider that in your
16 report, correct?

17 MR. BARR: Object to form.

18 A. Again, same answer. Did not think it was
19 relevant to causality of his Parkinson's disease.

20 Q. And Mr. Peterson has been diagnosed with
21 coronary artery disease, correct?

22 A. Correct.

23 Q. And you did not consider that in your
24 report, correct?

25 A. I did not consider that relevant as to

1 causing his Parkinson's disease.

2 Q. And even with this -- even with this list
3 we just went through of factors that Mr. Peterson
4 has been diagnosed with, it is your opinion that
5 Mr. Peterson's exposure to water at Camp Lejeune is
6 the cause of his Parkinson's disease, correct?

7 A. At least as likely as not, yes.

8 Q. If you would turn to Page 13 of your expert
9 report.

10 A. I'm there.

11 Q. 13 of Peterson, and can you also turn to
12 Page 13 of Mr. McElhiney?

13 A. Okay. I'm there.

14 Q. And so if you look at your report on Mr.
15 Peterson, the last paragraph, first sentence.

16 A. Okay. I'm sorry. Peterson or McElhiney?

17 Q. Peterson.

18 A. Page 13?

19 Q. Yes.

20 A. Which sentence again? I'm sorry.

21 Q. The last paragraph, first sentence.

22 A. Okay. The one that starts with "The
23 possibility"?

24 Q. Correct.

25 A. Okay.

1 Q. You state, "The possibility of alternative
2 causes or contributing factors for Mr. Peterson's
3 illnesses and conditions," which is in quotes, "has
4 been raised." And you cite two the U.S.
5 supplemental response to plaintiffs' first set of
6 interrogatories Page 24, correct?

7 A. Correct.

8 Q. And you go on to say, "The term may" in
9 quotes "is imprecise and it is not clear if it meant
10 to convey the concept of" quotes "as likely as not.
11 Likewise, the phrase," quotes "illnesses and
12 conditions is overly inclusive."

13 Did I read that correctly?

14 A. Yes.

15 Q. And so if we turn to Mr. McElhiney's
16 report, Page 13.

17 A. Okay.

18 Q. The first full paragraph, second sentence.

19 A. Okay.

20 Q. Begins with "the possibility"?

21 A. Yes.

22 Q. And that couple sentences I just read is
23 also in Mr. McElhiney's report, correct?

24 A. Correct.

25 Q. Did you write this section?

1 A. This paragraph?

2 Q. Yes.

3 A. Yes.

4 Q. You are not a lawyer, correct?

5 A. Correct.

6 Q. Do you have any experience analyzing
7 responses to interrogatories?

8 MR. BARR: Object to form.

9 A. Can you say that again? Do I have any
10 experience --

11 Q. Do you have any experience analyzing
12 responses to interrogatories?

13 MR. BARR: Same objection.

14 A. Not professionally.

15 Q. Do you have any experience analyzing the
16 precision of words and legal documents?

17 MR. BARR: Object to form.

18 A. Not at a professional level.

19 Q. Do you have any experience analyzing the
20 precision of the overinclusiveness of words in legal
21 documents?

22 MR. BARR: Object to form.

23 A. Not as a professional.

24 Q. Prior to reviewing this document, the U.S.
25 supplemental responses to plaintiff's first set of

1 interrogatories, did you consider the alternative
2 causes or contributing factors of Mr. Peterson's
3 Parkinson's disease?

4 MR. BARR: Object to form. Asked
5 and answered.

6 A. Yes.

7 Q. And prior to reviewing this document, did
8 you consider alternative causes or contributing
9 factors of Mr. McElhiney's Parkinson's disease?

10 MR. BARR: Object to form.

11 A. Yes.

12 Q. Is it your standard practice as an expert
13 to only consider alternative causes or contributing
14 factors of Parkinson's disease if someone raises the
15 question?

16 MR. BARR: Object to form.

17 A. No, not necessarily. That's an independent
18 -- I would say that's an independent opinion on my
19 part.

20 Q. It's an opinion to consider alternative
21 causes or contributing factors?

22 A. Yes. Although, I guess, are you asking if
23 someone raised -- say, he broke his toe and someone
24 raised that as a risk factor, would I feel the need
25 to address it? Is that your question?

1 Q. My question is, the United States raised
2 this question of alternative causes and --

3 A. Oh.

4 Q. -- contributing factors. Is it your
5 standard practice to not consider those instances
6 until it is raised by another party?

7 MR. BARR: Object to form.

8 A. I truly don't know how to answer that
9 question. It would certainly not be -- it would --
10 let me -- give me one second.

11 I guess I would say if someone raised
12 something, I would feel that it might be worth
13 thinking about and identifying and evaluating. But
14 I wouldn't say that it was the only things that I
15 would consider evaluating.

16 MS. PLATT: Why don't we go ahead
17 and take a break?

18 VIDEOGRAPHER: Time on the monitor
19 is 4:54. We are off the record.

20 (Brief recess.)

21 VIDEOGRAPHER: The time on the
22 monitor is 5:10. This begins media 6.
23 We are on the record.

24 BY MS. PLATT:

25 Q. Okay. Dr. Barbano I have a few odds and

1 ends questions as we wrap up today, so I'm going to
2 be jumping around a little bit, so bear with me.

3 A. Will do.

4 Q. So you conducted a Bradford Hill analysis
5 in your reports, correct?

6 MR. BARR: Object to form asked and
7 answered.

8 A. Correct.

9 Q. And your reports are specific causation
10 reports, correct?

11 A. Correct.

12 Q. And as you -- it was your prior testimony
13 that you conducted a Bradford Hill analysis because
14 you saw in the literature that epidemiologist
15 conducted Bradford Hill evaluations when analyzing
16 causation, correct?

17 MR. BARR: Object to form. Asked
18 and answered.

19 A. Correct.

20 Q. In general, the epidemiologists were
21 analyzing general causation questions, correct?

22 MR. BARR: Object to form.

23 A. Correct.

24 Q. Have you -- and your Bradford Hill analysis
25 is related to your specific causation opinions from

1 Mr. McElhiney, correct?

2 A. In that report, correct, yes.

3 Q. And your Bradford Hill analysis is related
4 to your specific causation opinions for
5 Mr. Peterson, correct?

6 A. In that report, correct.

7 Q. Have you ever seen a Bradford Hill analysis
8 conducted in a specific causation report?

9 MR. BARR: Object to form.

10 A. No.

11 Q. Were you instructed to conduct a Bradford
12 Hill analysis?

13 MR. BARR: Object to form. Do not
14 answer that.

15 Q. Are you going to follow that instruction?

16 A. I'm going to follow that instruction.

17 Q. Other than Dr. Reynolds, have you met with
18 any other experts in this litigation?

19 MR. BARR: Object to form. Asked
20 and answered.

21 A. No.

22 Q. Have you met with any neuro-psych experts
23 in this litigation?

24 A. No.

25 Q. Have you met with any psychologist experts

1 in this litigation?

2 MR. BARR: Object to form. Asked
3 and answered.

4 A. No.

5 Q. Have you met with any experts that are
6 psychiatrists in this litigation?

7 MR. BARR: Object to form. Asked
8 and answered.

9 A. No.

10 Q. And you work with Dr. Schwarz, correct?

11 A. Correct.

12 Q. And she is another expert in this
13 litigation, correct?

14 A. Correct.

15 Q. Have you met with her related to this
16 litigation?

17 MR. BARR: Object to form. Asked
18 and answered.

19 A. Prior to this litigation, we have -- we met
20 and were both contacted about potentially being
21 experts and we discussed whether or not that was
22 something we were interested in participating in.

23 Q. And that was prior to you being retained in
24 this litigation, correct?

25 A. Correct.

1 Q. And what was that conversation about?

2 A. We discussed the pros and cons of doing
3 expert witness work. As we discussed before, I do a
4 significant amount of it for personal injury issues
5 and she does significantly less. She does some for
6 medical malpractice, I believe.

7 And we were discussing how we didn't know
8 how this was actually technically set up legally
9 being that we weren't lawyers, we were a little
10 confused as to, basically, whether was this a class
11 action, we just didn't know the legalities of it.
12 So we discussed that and whether each of us had the
13 time to do it, et cetera.

14 Q. What did you discuss as the cons of being
15 retained as an expert?

16 A. As cons, time, inability to -- potentially
17 inability to come to a reasonable opinion, you know,
18 the -- really mostly time and, you know, that's a
19 factor.

20 Q. Why were you hesitant in thinking you
21 couldn't come to a reasonable opinion?

22 MR. BARR: Object to form.

23 Misstates the testimony.

24 A. I wasn't sure to the extent of records that
25 I would be able to -- that I would be provided prior

1 to getting involved with the case.

2 Q. Any other reasons why you don't think --
3 why you initially thought you could not reach a
4 reasonable opinion in this case?

5 MR. BARR: Object to form.

6 A. No. I thought that if I had enough of the
7 information that I could get, then I could come to a
8 reasonable opinion.

9 Q. Do you feel like you received that amount
10 of information in Mr. Peterson's case?

11 A. Yes.

12 Q. Do you feel you received that amount of
13 information in Mr. McElhiney's case?

14 A. Yes.

15 Q. Have you had any communications with
16 Dr. Samuel Goldman about Camp Lejeune?

17 A. No.

18 Q. Any communications with Dr. Goldman about
19 Parkinson's disease?

20 MR. BARR: Ever?

21 A. Yeah, I guess I would say ever. I don't
22 know if you want to make this conversational. I
23 have met him once at a conference when we were
24 presenting our poster on the work here in Rochester
25 and he came over to ask questions about it. It was

1 the one and only time I met him, and we were
2 actually in another location and we wound up talking
3 more about being in Madrid than anything else.

4 Q. And Dr. Goldman is one of the authors on
5 that article about Rochester, correct?

6 A. Is he one of them? Yes, he is, correct.

7 Q. So did you have any communications with
8 Dr. Goldman about this study other than that
9 conversation when you presented --

10 A. No, not directly, no.

11 Q. Is it standard practice when you write a
12 study or you write a publication with your coauthors
13 you don't have any communications with them?

14 MR. BARR: Object to form.

15 A. I would want you to maybe clarify what you
16 mean by communication, or I can just explain the way
17 it worked.

18 Q. I mean, communications, you know, about
19 this study, about your work.

20 A. Yes. These go into group emails and, you
21 know, people will say this is the introduction, what
22 do you think, do you have any edits, do you want to
23 add anything, and then -- so it's all as you would
24 -- what did you count up, 12 authors or however
25 many. All of the authors are looking at it. I

1 don't often pay attention to who is adding edits, I
2 will just look at it and check agree, disagree,
3 would not phrase that way. So I can't specifically
4 say if or any of those came specifically from
5 Dr. Goldman.

6 Q. But Dr. Goldman would be copied on those
7 emails; is that correct?

8 A. Dr. Goldman should have gotten a copy of
9 this prior to publication, I would say, yes.

10 Q. Was Dr. Goldman copied on those email
11 communications you described?

12 A. I assume so. The way they would appear on
13 an email, I would not scroll through all of those
14 authors to see who is on it, who is not.

15 MS. PLATT: We would request
16 production of any communications that
17 Dr. Barbano has with Dr. Goldman.

18 MR. BARR: You are more than
19 welcome to make the request.

20 MS. PLATT: It's already in the
21 subpoena we issued in this deposition.

22 MR. BARR: And we made an
23 objection, so --

24 BY MS. PLATT:

25 Q. When were you first contacted about work on

1 this litigation?

2 A. I think -- I think last February, plus or
3 minus. Early last year.

4 Q. And who contacted you?

5 A. Pat Telan.

6 Q. And when were you first retained as an
7 expert in this litigation?

8 A. March.

9 Q. Of 2024?

10 A. Correct.

11 Q. And who retained you?

12 A. I assume Pat Telan or whoever he
13 represented, but to be honest, I'm not positive. I
14 think it's Bell Legal Group, but -- that's who I
15 think he represented.

16 Q. Okay. Have you ever received a retention
17 letter in this case?

18 A. I don't know. I don't recall. I do recall
19 submitting a fee schedule and having that accepted.
20 I don't recall a retention letter specifically.

21 Q. Okay. I'm going to go ahead and mark
22 Exhibit Number 15. I will hand you Exhibit 15,
23 Dr. Barbano. Do you recognize this document?

24 (Exhibit Number 15 was marked for
25 identification.)

1 A. It seems reasonable. I don't personally
2 recall seeing it, but I recognize what it is.

3 BY MS. PLATT:

4 Q. And what would you describe it as?

5 A. I would describe this as a retention
6 letter.

7 Q. And you do not have any specific
8 recollection of receiving this?

9 A. I don't.

10 Q. Do you have any recollection of when you
11 would have received it?

12 A. I would say it would have been in March of
13 2024 because that's when my invoicing for the work
14 that I do started.

15 Q. And this letter does not have a date on it,
16 correct?

17 A. Correct.

18 Q. And if we flip that document over --

19 A. Yes, I see that.

20 Q. -- there's another document with the dates
21 stamp CL_PLG_Expert_Barbano000000094, correct?

22 A. Correct.

23 Q. And the previous page that we just talked
24 about is the same Bates stamp ending in 93, correct?

25 A. Correct.

1 Q. So the document ending in 94, do you
2 recognize that document?

3 A. Yes.

4 Q. And what is this document?

5 A. This is my fee schedule that I submitted to
6 Ms. Mirtz.

7 Q. And when did you submit this fee schedule?

8 A. March 21st.

9 Q. And that's the date on it?

10 A. '24, correct.

11 Q. And that's the date on the top of this
12 letter, correct?

13 A. Correct.

14 Q. Okay. You can set that aside.

15 What was the scope of your assignment for
16 this litigation?

17 A. To formulate an opinion as to whether the
18 exposure to water at Camp Lejeune was at least as
19 likely as not to be causal in the -- to be causal to
20 Parkinson's disease in Mr. McElhiney and
21 Mr. Peterson.

22 Q. Did you review any of the records for the
23 other three plaintiffs?

24 MR. BARR: Object to form.

25 A. No.

1 Q. And you are being compensated in this
2 litigation as an expert, correct?

3 A. Correct.

4 Q. Do you know how much you have been paid to
5 date?

6 A. Yes.

7 Q. How much?

8 A. \$65,000, plus or minus.

9 Q. Do you receive a bonus if plaintiffs
10 prevail at trial?

11 A. No.

12 Q. Did you receive any written instructions
13 regarding the issues you should address?

14 A. No.

15 Q. Do you have any materials provided to you
16 by counsel that are not included on your materials
17 considered list and subsequent supplements to the
18 materials considered list?

19 MR. BARR: Object to form to the
20 extent it calls for materials that are
21 protected, i.e., drafts.

22 MS. PLATT: You provided your
23 expert with drafts?

24 MR. BARR: No. Drafts are
25 protected, and we are not going to talk

1 about drafts. So I'm saying any
2 comments from counsel about our
3 materials we are not going to get into.

4 MS. PLATT: I'm asking Dr. Barbano
5 if you provided him with any --

6 MR. BARR: And I'm asking --

7 MS. PLATT: Any materials, any
8 facts and data to be considered in this
9 case that he considered and relied on in
10 writing his report.

11 MR. BARR: Okay. He can answer
12 that.

13 A. Other than the medical records and the
14 records provided that are listed there -- no, that's
15 not true. If I had an article that I could not pull
16 offline, I would ask Ms. Mirts to provide the
17 article that I initiated and asked her to have her
18 team find it and send it to me.

19 BY MS. PLATT:

20 Q. Did you write the entirety of your reports?

21 A. Yes.

22 Q. Did you perform any work in this matter
23 prior to executing your retainer agreement?

24 A. No.

25 Q. What percentage of your annual income is

1 earned from performing expert services?

2 A. This or all expert witnesses?

3 Q. All expert work.

4 A. About 40 percent.

5 Q. Okay. Dr. Barbano, I'm going to ask you
6 some questions about your prep for today for your
7 deposition. I don't want you to get into any
8 substance of communications you had with counsel,
9 that is privileged, okay?

10 A. Okay.

11 Q. What did you do to prepare for today's
12 deposition?

13 A. I reviewed the -- well, I reviewed a lot of
14 the records, I reviewed my report, I went back and
15 looked at particular facts and parts of articles
16 that I thought might come up and be germane to
17 today's discussion. So I guess I would say I
18 re-reviewed some of the literature basis with
19 specific questions that I had in my mind that I
20 wanted to answer or be able to answer should they
21 come up today.

22 Q. Did you meet with counsel?

23 A. Prior to this?

24 Q. Yes.

25 A. Yes.

1 Q. Who did you meet with?

2 A. Mr. Barr, Pat Telan, and -- this is
3 embarrassing. I'm forgetting the gentleman that was
4 here this morning.

5 Q. Mr. Dave Miceli?

6 A. Yes.

7 Q. It's more common than you think for experts
8 to forget.

9 MR. BARR: We are not as close as
10 you think.

11 A. It's the end of the day.

12 MR. BARR: We are not making the
13 Christmas card list.

14 THE WITNESS: No.

15 BY MS. PLATT:

16 Q. When did you meet with them?

17 A. I met with Mr. Barr and Mr. Miceli last
18 night. I met with Mr. Telan on Sunday -- yesterday,
19 I guess it is, and I had met with Mr. Barr, I
20 believe, about a week prior.

21 Q. How long did each of those meetings last?

22 A. The one with Mr. Barr, I would estimate
23 30 minutes to an hour. The one with Mr. Telan
24 yesterday was about an hour and a half. And then,
25 the meeting with Mr. Barr and Mr. Miceli was hour,

1 hour and a half last night.

2 Q. And in addition to that, you said that you
3 reviewed some materials, correct?

4 A. Correct.

5 Q. What did you -- how did you determine what
6 was significant for you to review?

7 A. I was looking through some of the
8 depositions and was reading some of the questions
9 that the government was asking of witnesses and it
10 just made me think I should know that or I should
11 look at that. I reviewed the government general
12 causation expert, one of them, Dr. Goodman's report
13 and looked through that and said these are things
14 that I should know about. And so that generally
15 helped me formulate what questions I felt like I
16 needed to know.

17 Q. In writing your reports, did you review any
18 other reports by the government's experts other than
19 Dr. Goodman?

20 A. In writing my report?

21 Q. Yes.

22 A. At the time of writing my report, I did not
23 have Dr. Goodman's report. So these reports that I
24 have do not contain any prior knowledge of any of
25 the government reports. The government reports that

1 are listed in the addenda came afterwards and those
2 helped formulate -- you are asking how I decided
3 what I wanted to prepare, so in reading Dr. Young's
4 reports, I said okay, let me read that literature.
5 So none of the government reports are incorporated
6 into these.

7 Q. Okay. So after you submitted your expert
8 reports, you then reviewed Dr. Goodman's report,
9 correct?

10 A. Correct.

11 Q. And you reviewed Dr. Young's reports,
12 correct?

13 A. Correct.

14 Q. Are there any other reports by the United
15 States experts that you reviewed?

16 MR. BARR: They have all been
17 disclosed, Counsel.

18 A. No. Those are the only two that I think
19 I've read.

20 MS. PLATT: Okay. We have no
21 further questions. I will be keeping
22 this deposition open pending production
23 of the documents that were requested
24 during this deposition.

25 Thank you for your time, Dr.

1 Barbano.

2 MR. BARR: I have a handful of
3 follow-up, so if we want to take five
4 and get organized, it won't take me
5 long.

6 VIDEOGRAPHER: Time on the monitor
7 is 5:33. We are off the record.

8 (Brief recess.)

9 VIDEOGRAPHER: Time on the monitor
10 is 5:37. This begins media 6. We are
11 on the record.

12 EXAMINATION

13 BY MR. BARR:

14 Q. Good evening, my name is Brian Barr, I'm
15 here on behalf of Mr. McElhiney and Mr. Peterson.

16 You recall earlier this morning, you were
17 asked some questions about DBS, deep brain
18 stimulation, in regards to Mr. McElhiney?

19 A. Yes, correct.

20 Q. And you discussed that he underwent a DBS
21 procedure, correct?

22 A. Yes.

23 Q. Does DBS cure Parkinson's disease?

24 A. No.

25 Q. Does the disease continue to progress?

1 A. Yes.

2 Q. What does a patient with DBS like
3 Mr. McElhiney, what is their prognosis even with
4 DBS?

5 A. With DBS, it provides symptomatic relief,
6 it allows them to stay independent and functioning
7 longer, but it doesn't change the underlying course
8 of the disease as you -- so the other plaintiff,
9 Mr. Peterson, for example, has DBS. I think he had
10 that back in 2014, so -- and he's obviously
11 wheelchair bound and unable to speak. So DBS is a
12 very valuable treatment tool, but it doesn't prevent
13 the ultimate prognosis.

14 Q. Now, you were asked some questions about
15 the -- there was some discussion about whether it
16 was an interview or an IME, but however we want to
17 refer to it, you were asked some questions about the
18 IMEs you conducted with Mr. McElhiney and
19 Mr. Peterson; do you recall that?

20 A. Yes.

21 Q. And you were asked some questions about why
22 didn't you ask about certain risk factors, do you
23 recall that?

24 A. Yes.

25 Q. When you typically conduct an IME, do you

1 have hours of depositions available to you?

2 MS. PLATT: Objection.

3 A. No. I was going to say, can I answer,
4 but --

5 Q. If she instructs you not to answer, don't
6 listen to that instruction.

7 A. No, I usually don't have the extent of
8 records that I had in this case.

9 Q. And was there information in those
10 depositions that shortened the time that you were
11 required to spend with these plaintiffs?

12 A. Yes, absolutely.

13 Q. Information like what?

14 A. History, progression of disorder, initial
15 symptoms, other issues that relate to the disease
16 that allowed me to take a shortcut to try to
17 confirm. In my mind, the interview/IMEs that were
18 performed were to really confirm what I had read,
19 put some details to them, and to come to an
20 independent conclusion as to whether the two
21 claimants had Parkinson's disease or something else
22 on a differential.

23 Q. And based upon the totality of what you had
24 to review, the records, the depositions, the
25 military records, you know, your interview, IME, was

1 there any more information you needed to come to an
2 opinion?

3 A. The review of medical literature, if you
4 included that, yes, no. That was bad. If you
5 included -- I'm sorry.

6 If you include medical literature, I feel I
7 have as much information I need to come to a
8 reasonable opinion.

9 Q. Now, counsel talked to you about conditions
10 like GERD, rosacea, eczema, I think there might have
11 been others that were characterized as risk factors
12 for Parkinson's disease. Do you recall that?

13 A. Yes.

14 Q. I believe she also referred to being male
15 as a risk factor for Parkinson's disease. Do you
16 recall that?

17 A. Yes.

18 Q. Is there a difference between statistical
19 association and causation?

20 A. Yes.

21 Q. Can you explain that?

22 A. Yes. Many things can have an association.
23 Association is not causality. Association can occur
24 through commonalities, you know, the issue, say, for
25 example, if there was an association between being

1 female and having prolonged labor. It's not saying
2 that being female caused prolong labor, nor did
3 prolong labor cause being female, but they are an
4 association because they have a commonality.

5 So I was answering the question in regards
6 to being a male. I'm not aware of any scientific
7 literature that shows that being a male has any
8 reason to be causative of Parkinson's. There is an
9 association. In my opinion, that association is
10 more likely than not occupational based and that
11 exposures, for example, and not just including TCE,
12 let's say, an herbicide is likely to be more common
13 in people who work farms, who are more likely to be
14 men. So there's a difference between association
15 and causality and they can occur by, again,
16 commonalities that need to be taken into account
17 for.

18 There's also -- B-12 was noted. When
19 somebody has a comorbid condition that leads them to
20 seek medical care, it is more likely to result in a
21 diagnosis that is additional. So people may have
22 vitamin B-12 deficiency, in that example, for
23 example, that also goes along with GERD, and it also
24 may go along with potential Parkinson's if a person
25 is exposed to an ingested toxin.

1 So the important thing, in my mind, which
2 is why I was trying to clarify what I mean by risk
3 factors, are what are the factors that are actually
4 biologically plausible to be causative.

5 Q. Is there a biological causality for being
6 male causing Parkinson's disease?

7 MS. PLATT: Objection.

8 A. Not that I'm aware of.

9 Q. Now, you were shown Exhibit 11, which was
10 the article about the study, I'm just going to say
11 Dr. K, we can say Coach K, about PCE. Do you recall
12 that?

13 A. Yes.

14 Q. And you were shown on Page 3 of this, do
15 you see the paragraph "It remains unclear"?

16 A. Yes.

17 Q. And counsel read to you the part that says,
18 "It remains unclear whether TCE is a direct cause of
19 Parkinson's disease, but a lot of us believe it's
20 causal."

21 Did I read that right?

22 A. Yes.

23 Q. But she didn't read the rest of it --
24 actually, what she did -- strike that. Let me start
25 over.

1 What she read to you was, "It remains
2 uncertain whether TCE is a direct cause of
3 Parkinson's disease." Do you recall that?

4 MS. PLATT: Objection.

5 A. As best as I can recall, that was read.

6 Q. And she didn't read any further, correct?

7 MS. PLATT: Objection.

8 A. As best as I can recall.

9 Q. Can you read the remainder of that
10 paragraph?

11 A. Sure. "It remains uncertain whether TCE is
12 a direct cause of Parkinson's disease, but" open
13 quote "a lot of us believe it's causal. There's a
14 lot of evidence now. There are some very good
15 studies with inhalation models that show it affects
16 autophagy or the way we breakdown proteins, and that
17 it also involves Lark 2, which one of the proteins
18 involved in some of the genetic forms of Parkinson's
19 disease and it might affect mitochondria. They are
20 all linked in network, and right now the animal
21 studies point to that network said Dr. Bronstein."

22 Q. Okay. Now, you were also -- I'm going to
23 move on from that.

24 You were shown Exhibit 14, and you were
25 asked some questions about Dr. Bertorini. Do you

1 remember that?

2 A. Yes.

3 Q. Counsel referred to you -- referred you to
4 Page 85 of that deposition. I might not have the
5 page written down right, but there was a question
6 and answer, and the doctor said he didn't know how
7 the two letters were different. Do you recall that?

8 MS. PLATT: Objection.

9 A. Yes.

10 Q. Do you recall that?

11 MS. PLATT: Objection.

12 A. I recall. It's on the page before, it's on
13 Page 84 I think.

14 Q. Okay. But during the deposition, would you
15 agree with me -- well, let's just go to Page 85.

16 A. Sorry. I was reading upside down.

17 Q. Let's just go to Page 85. And could you
18 just read for the Court Page 85, Line 7 to Line 13?

19 A. "Question: Since writing this letter, the
20 one that was just on the screen on Exhibit 8, has
21 your opinion at all changed as to what may have
22 caused Mr. Peterson's Parkinson's disease?"

23 "Answer: I'm more inclined to believe now
24 that the exposure at Camp Lejeune would have caused
25 his Parkinson's disease."

1 Q. So how do you interpret Dr. Bertorini's
2 opinion as to the cause of Mr. Peterson's
3 Parkinson's disease?

4 A. I would interpret that statement as saying
5 that it was his opinion that it was causative.

6 Q. Now, I want to look at Page 75 of the
7 deposition.

8 A. Okay.

9 Q. And if you could just read Page 75, Line
10 19, through Page 76, Line 4.

11 A. "Question: Did you consider whether a head
12 injury could have caused or contributed to his
13 condition?"

14 "Answer: I did not."

15 "Question: And did you consider whether
16 his exposure to paint could have contributed to his
17 condition?"

18 "Answer: Absolutely not."

19 "Question: I want to clarify. When you
20 say, 'Absolutely not,' are you saying that you did
21 not consider these or are you excluding those as a
22 possibility?"

23 "Answer: I did not consider those at that
24 time and I don't believe now."

25 Q. Okay. So the next thing, you were asked a

1 lot of questions about concussions with both
2 Mr. Peterson and Mr. McElhiney. Do you recall that?

3 MS. PLATT: Objection.

4 A. I recall, yes, being asked questions about
5 concussions.

6 Q. From your review of the medical records,
7 are you aware of any contemporaneous medical records
8 that diagnosed Mr. Peterson with a concussion?

9 MS. PLATT: Objection.

10 A. No, I do not recall seeing any
11 contemporaneous records to that extent.

12 Q. Same question as to Mr. McElhiney. After
13 your review of his medical records, do you recall
14 any contemporaneous medical record that diagnoses
15 him with a concussion?

16 MS. PLATT: Objection.

17 A. Yes. I was able to find the
18 contemporaneous records when he went for evaluation
19 after the injury.

20 Q. And was he diagnosed with a concussion?

21 A. He was not.

22 Q. Have you heard anything during this
23 deposition today that causes you to change any of
24 your opinions?

25 MS. PLATT: Objection.

1 A. No.

2 Q. And are you offering all of the opinions
3 you offered to a reasonable degree of medical
4 certainty?

5 A. I did.

6 MR. BARR: Okay. That's all I
7 have.

8 MS. PLATT: Nothing further.

9 Thank you for your time, Dr.
10 Barbano.

11 VIDEOGRAPHER: We are going off the
12 record at 5:50 p.m. This concludes
13 today's testimony given by Dr. Richard
14 Barbano. The total number of media
15 units was six and will be retained by
16 Veritext.

17 (The deposition of Richard
18 Barbano, MD, was concluded.)
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AFFIDAVIT:

STATE OF NEW YORK

COUNTY OF _____

I have read my deposition, and the same is true and accurate, save and except for changes and/or corrections, if any, as indicated by me on the correction sheet attached hereto.

RICHARD BARBANO, MD

SUBSCRIBED AND SWORN TO before me this _____ day of _____, 20____.

NOTARY PUBLIC

My commission expires on _____.

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ERRATA SHEET:

Case: Camp Lejeune Water Litigation

Witness: Richard Barbano, MD

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CERTIFICATION:

STATE OF NEW YORK

COUNTY OF STEUBEN

I, TONIA L. TINKER, the officer before whom the foregoing deposition was taken, do hereby certify that the witness whose testimony appears in the foregoing deposition was duly sworn by me.

I further certify that the testimony of said witness was taken by me in Stenotype and thereafter reduced to typewriting under my supervision.

I further certify that the said deposition constitutes a true record of the testimony given by said witness to the best of my ability.

I further certify that the said deposition was taken before me at the time and place specified in the notice.

I further certify that I am neither counsel for, related to, nor employed by any of the parties to the action in which this deposition was taken, nor financially or otherwise interested in the outcome of the action.

<%17542,Signature%>

TONIA L. TINKER, Notary Public

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate.

The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

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