Exhibit 615

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA

IN RE:	)
	)
	)
CAMP LEJEUNE WATER LITIGATION,	)
	)
	)Case No. 7:23-cv-00897
	)
This document relates to:	)
	)
ALL CASES	)
	)

REMOTE VIDEOTAPED DEPOSITION OF

KELLY A. REYNOLDS, phD

Tucson, Arizona
August 12, 2025
10:30 a.m.

REPORTED BY:

Laura A. Ashbrook, RMR, CCR
Arizona CR # 50360

DEPOSITION OF KELLY A. REYNOLDS, phD was taken on August 12, 2025, commencing at 10:30 a.m. The witness appeared from Tucson, Arizona. Laura A. Ashbrook, RMR, CCR, #50360, appeared via Zoom.

COUNSEL APPEARING:

For the Plaintiffs:

MILBERG LAW FIRM
By: David Miceli, Esq.
Jenna Butler, Esq.
800 South Gay Street
Suite 1100
Knoxville, Tennessee 37929
(404) 915-8886
dmiceli@milberg.com

For the Defendants:

U.S. DEPARTMENT OF JUSTICE
By: Kailey Silverstein, Esq.
Anna Ellison, Esq.
Adam Bain, Esq.
Civil Division Torts Branch
1100 L St. NW
Washington, DC 20005
(202) 307-5818
kailey.silverstein@usdoj.gov

ALSO PRESENT:

James Vonwiegen, Videographer

I N D E X

E X H I B I T S

P R O C E E D I N G S

THE VIDEOGRAPHER: We're now on the record. My name is James Vonwiegen with Golkow.

Today's date is August 12th of 2025 and the time is 10:30 a.m.

This remote video deposition is being held in the matter of Camp Lejeune Water Litigation versus United States of America. The deponent is Dr. Kelly A. Reynolds.

All parties to the deposition are appearing remotely and have agreed to the witness being sworn in remotely.

Due to the nature of remote reporting, please pause briefly before speaking to be sure all parties are heard completely.

Counsel are now on the stenographic record. The court reporter, Laura Ashbrook, Maricopa, will now swear in the witness.

MS. SILVERSTEIN: Kailey Silverstein for the United States.

MR. MICELI: David Micheli for the Plaintiffs' Leadership Group, and I have Jenna Butler here with me today as well.

KELLY A. REYNOLDS, PhD,
called as a witness herein, having been first duly sworn, was examined and testified as follows:

MR. MICELI: Just for the record, this is a continuation of a previous deposition where she had already been sworn, so she remains under oath, but we're happy to have her sworn again.

EXAMINATION

BY MS. SILVERSTEIN:

Q. Good afternoon here, Dr. Reynolds, but I believe good morning to you. I hope you're doing well today.

A. Thank you. You too.

Q. I know we did a deposition less than two months ago, so I don't think that we need to go back over kind of what a deposition looks like or anything like that, but if you have any questions as we -- as the deposition goes on today, please let me know. If you don't understand my question, let me know. All of those things that we talked about previously still apply.

Does that make sense?

A. Yes.

Q. The only thing that's a little bit different is we are all remote so we are using Zoom, and I'm sure you

know that Zoom sometimes has a little bit of a lag.

I don't think you and I really had any problems with this the first part of this deposition back in June, but, you know, if I start asking a question and there's a lag and you haven't finished your answer or anything, please just let me know so we can make sure that we're working within the confines of technology.

Does that make sense?

A. Yes.

Q. I want to talk to you about the spreadsheet that you used for your calculation for the 25 plaintiffs. Do you know what spreadsheets I'm referring to?

A. Yes.

Q. Did you -- would it be fair to say that the spreadsheets that show the live versions of the charts that you used in doing your exposure calculations, that those are the same spreadsheets that you used while you were preparing your initial report that was submitted on February 7th?

A. Yes, with the exception of some submitted corrected versions.

Q. By the submitted corrected versions, are you referring to the charts or appendices for plaintiffs Dyer, Connard, Hill and Cagiano?

A. That's correct.

Q. Did you provide counsel with all of the spreadsheets that you used to calculate the plaintiffs' exposures?

MR. MICELI: Object to the form. And just to instruct the witness, you can answer yes or no to that but you cannot discuss what we have discussed.

A. Yes.

Q. So it would be fair to say then that there aren't any spreadsheets that you used to calculate the 25 plaintiffs' exposure that have not been provided; is that fair?

MR. MICELI: Object to the form. To the extent you're referring to drafts, those would not be discoverable, but otherwise object to the form.

A. I submitted the final versions of the spreadsheets, yes.

Q. And when you say the final versions, did you submit them as they were when you completed your calculations for -- either on February 7th or for the four plaintiffs that you had corrected appendices for when you finalized those appendices?

A. Yes.

Q. When did you prepare the 25 spreadsheets?

A. Are you asking about the final version?

Q. Yeah. So let's start with the 21 plaintiffs that

you haven't -- that there are not corrected appendices for. When did you prepare those spreadsheets?

A. I prepared the final versions around February, but they weren't all done at the exact same time. So some might have been done a little bit prior to that, but it was a process of creating spreadsheets with the information I had to review and the depositions and the military records. So it took a few weeks to put that information together and prepare spreadsheets.

Q. When about did you -- recognizing a specific day is probably not something you're going to remember, but when about did you begin preparing those spreadsheets?

A. I don't recall the exact date, but it would have been weeks to a few months prior to February.

Q. Okay. Do you think it would be accurate to say like late 2024?

MR. MICELI: Object to the form.

A. Yes, around that time frame.

Q. For the 21 plaintiffs that there are not corrected appendices for, when was the last time that you made changes to those spreadsheets?

MR. MICELI: Object to the form. To the extent you're seeking drafts and information on drafts, I would instruct her not to answer, but if you can answer without talking about drafts, please do.

A. Could you please repeat that question?
Q. Yeah. For the 21 plaintiffs that there are not corrected appendices for, when did you last make changes to those spreadsheets?
MR. MICELI: Same objection and instruction.
A. I don't think I can answer that without talking about drafts.
Q. When was -- at what point were they considered final spreadsheets?
A. They were considered final spreadsheets in February of 2025.
Q. Okay. Just so we're clear, I am not talking about the substance of any drafts but just the timing of when the documents were prepared.
Did you make any changes to any of those 21 spreadsheets after February 7, 2025?
MR. MICELI: Same objection, same instruction.
MS. SILVERSTEIN: And, David, the timing of drafts and the timing of when a final product was completed is not protected under CMO 17. We're asking about --
MR. MICELI: If it's a draft -- I'm sorry. Let me let you finish. I apologize.
MS. SILVERSTEIN: We're asking about the

timing of when something was created, not the substance and that is not protected under CMO 17.

MR. MICELI: Well, a draft is a draft and it doesn't have to be specifically stated in CMO 17. If you're asking her about something I interpret as a draft, I will object and protect any discussion about drafts of a report, period.

MS. SILVERSTEIN: Are you instructing her not to answer about the timing of the draft?

MR. MICELI: Well, she's already told you when they were final. I'm not going to repeat that because I don't want to instruct her, but you can ask her questions and I can make objections, and if it's about drafts, she can decide whether to follow my instruction.

MS. SILVERSTEIN: I'm trying to get some clarity for myself. Are you instructing her not to answer a question that I've asked so that I can understand where we are on this?

MR. MICELI: Sure. I am instructing her not to answer about drafts. If she can answer your question without discussing drafts after already telling you when they were final, then ask your question and we'll see if she can answer it.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, would it be fair to say that the last time you made a change to a spreadsheet is when that spreadsheet became final?

A. Yes.

Q. So, in other words, the moment that you last made a change was when you finalized this spreadsheet, right?

A. I don't know if I would characterize it as making a change necessarily, but, you know, just completing the assessment. Yeah, after I completed the assessment, then I submitted the final draft.

Q. Okay. For any of the 21 plaintiffs that there are not corrected appendices for, did you complete any of those final drafts after February 7th?

A. No.

Q. And for those 21 plaintiffs, did you change anything after finishing the final draft on February 7th?

A. You said for the 21 plaintiffs?

Q. Yes, for the 21 plaintiffs.

A. No.

Q. Would it be fair to say then that for the 21 plaintiffs that don't have corrected appendices, their spreadsheet appears as it did on February 7th, 2025?

A. Yes.

Q. Would it be accurate to say that for the four

plaintiffs that there are corrected appendices for, that you made changes to those spreadsheets some time after February 7, 2025?

A. Yes.

Q. Did you make any changes to the spreadsheets for the four plaintiffs who have corrected appendices after finalizing the corrected appendices?

A. No.

MR. MICELI: Object to the form.

Q. I'm sorry? Was that no, you didn't make any changes after finalizing the corrected appendices?

A. Correct.

Q. Between your June 25th deposition and when you provided Mr. Miceli or other plaintiffs' counsel with those 25 spreadsheets, did you make any additional changes to the spreadsheets with the exception of Mr. Cagiano?

A. No.

MR. MICELI: Excuse me. Object to the form. Kailey, we submitted one before the last deposition.

MS. SILVERSTEIN: Yes, which is the except for Mr. Cagiano.

MR. MICELI: I think Connard too, wasn't there?

MS. SILVERSTEIN: David, we can go off the record and discuss this, but, you know, Dr. -- I don't

know the timing of her corrected appendices. So please refrain from coaching the witness. If there's something you want to discuss, we can go ahead and go off the record.

MS. SILVERSTEIN: Well, I'm just trying to help you, Kailey. I'm not trying to instruct her. The productions via the JEPS (phonetic) will demonstrate when we produced what we produced.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, are you aware that the 25 spreadsheets as well as the corrected spreadsheet for Mr. Cagiano were produced after your June 25th deposition?

A. Yes. I don't have -- I don't have memory of when exactly those were produced, but all the final versions have been produced and are in the production materials of -- I think they were produced June 14th, about that time. I don't remember exactly, but, yeah, there were some corrected versions which I think are transparently produced, and then there were some questions raised on Cagiano in the deposition which I believe those have been corrected and produced.

Q. Okay. And all of those spreadsheets you're aware were produced after your deposition on June 25th, right?

A. Yes. That makes sense, yes.

Q. After your June 25th deposition for the 24

plaintiffs that aren't Mr. Cagiano, did you make any changes to those spreadsheets?

A. No. So you're asking about the difference between the pdf versions that were produced and then the live spreadsheets that were received after my deposition?

Q. Yes. So the live spreadsheets, were those the same on June 24th (verbatim) as they are currently?

A. Yes.

Q. And that's with the exception of Mr. Cagiano, right?

A. Correct.

Q. When did you provide counsel with the live version of those spreadsheets?

MR. MICELI: Object to the form. Do not answer that. That entails communications between counsel and witness.

MS. SILVERSTEIN: David, I'm asking a question about timing. I disagree that it provides -- that it's privileged. I'll go ahead and ask about this differently.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, did you receive the subpoena for documents prior to your June 25th deposition?

A. Yes.

Q. And did you see in that subpoena that it

requested the spreadsheets that you used for preparing your exposure assessment of the 25 plaintiffs?

A. Yes.

Q. Prior to your June 25th deposition, had you provided those live spreadsheets to counsel?

MR. MICELI: Object to the form. I instruct the witness not to answer, and objections and productions were made by counsel prior to the June 25th deposition, not by Dr. Reynolds, but by counsel.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, did you previously provide those spreadsheets to anybody?

MR. MICELI: Object to the form. To the extent it includes communication with counsel, I would instruct her not to answer.

MS. SILVERSTEIN: David, what substance are you objecting to here? We're asking about the circumstances, not the substance. If we need to discuss this offline, I'm --

MR. MICELI: We can discuss it --

MS. SILVERSTEIN: -- I'm happy --

MR. MICELI: We can discuss it offline, but you're talking about what she communicated to us and when, and I'm going to instruct her not to answer. Those are communications between the expert and us.

If you want to take up the fact that we produced things, let's do it offline and ask Dr. Reynolds to step outside or do you want to do this on the record without her present?

MS. SILVERSTEIN: We can go offline. Can we go ahead and go off the record, please?

THE VIDEOGRAPHER: Time is 10:46. We're off the record.

(Recess taken, 10:46 a.m. - 10:51 a.m.)

THE VIDEOGRAPHER: Time is 10:51. We're back on the record.

MS. SILVERSTEIN: And I won't get into what Mr. Miceli and the United States discussed, but I'll just note for the record that pursuant to that conversation, we are -- and Mr. Miceli's objection on privilege and the timing, as to the timing of certain conversations, we are leaving this deposition open and may seek court intervention.

MR. MICELI: And for the record, I understand that the DOJ is holding the deposition open. It's not something that's being done by agreement of counsel. We'll stand on our objections.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, would you agree that the spreadsheets for the 25 plaintiffs, the final version of

those spreadsheets, represent all of the equations and inputs that you used to determine their exposure?

A. Yes.

Q. And so if someone wanted to recreate your calculations and see exactly what went into a specific exposure number, they would be able to click on the cell of that spreadsheet and see exactly what you put in to come to that number; would that be fair?

A. The calculations are there that could easily be reproduced, but some of the information that informed those calculations would be in the depositions, let's say, why I chose three days training versus four days, non-training activities. Those would be numbers that were pulled from the depositions.

But they're in the calculations for people to be able to use and see what was used, and then in the calculation summary, there's a narrative of how those calculations were put together as well.

Q. Okay. That's helpful. Would it be correct to say then that someone looking at the spreadsheet could click on a cell and see what went into it but not necessarily why you put those numbers into the equation?

A. That's correct.

Q. As we sit here today, are there any corrections or revisions that you need to make to the spreadsheets,

the 25 final spreadsheets?

A. Not that I'm aware of, but it's possible new information could become available that would warrant updating spreadsheets.

Q. When you say new information could become available, what kind of information would, in your opinion, warrant an update to the spreadsheets?

A. Maybe just some clarification from the plaintiffs about their activities. There were some places where, when there was an absence of information from their deposition, I couldn't use their deposition information to inform their exposures specifically, so I used ATSDR defaults or field manual defaults.

And if additional information became available for clarification where I could construct a more plaintiff-specific exposure assessment, then it would be possible that we could do that.

Q. Okay. So it sounds like then, and please correct me if I describe this incorrectly, the type of information that there would maybe need to be updating for would be things like how much water a specific person drank, how many hours they were on base, maybe what location they were at, something like that?

MR. MICELI: Object to the form.

A. All of those things you listed were input

variables that sometimes we had plaintiff-specific information to inform those and sometimes we used defaults or my experimental -- sorry -- or my expert judgment.

So if we had more information on those details that were plaintiff specific, then, yes, those are the kind of information pieces that could be updated.

Q. Okay. Is there information that you could become aware of that would require you to change the equation that you used? And by equation, I don't mean the input into the equation; I mean, the like A plus B equals C, the mathematical equations?

MR. MICELI: Object to the form.

A. I think it depends. It depends on what the context of the information is, if it would change the actual formula. There may be an additional proportionate adjustment that could be made that wasn't in that particular plaintiff's original formula, but, in general, the methodology would be consistent, the same as what I presented in my report.

Q. Would it be fair to say then that sitting here today, to your understanding, these equations are representative of the deposition testimony and records and field manuals or standard inputs that you cited in your report and on your materials-considered list? Is that all accounted for?

MR. MICELI: Object to the form.

A. To my knowledge, all the information that I was provided was -- is complete with the information that is currently available, yes.

Q. Okay. On August 6th, so about a week ago, we received a revised appendix one for Mr. Cagiano. Are you aware of that appendix, revised appendix?

A. Yes.

Q. And it came with an errata that we were also provided. Are you familiar with that errata?

A. Yes.

Q. I'm going to go ahead and share my screen. If it's too small or for some other reason, you can't read it, please let me know and I will do my best to make sure that you can read it, and I will drop the document in the chat momentarily.

And, Dr. Reynolds, can you see my screen?

A. Yes.

MR. MICELI: Are you going to drop it in the chat as well?

MS. SILVERSTEIN: Like I just said, I will drop it in the chat.

MR. MICELI: I only ask because it's very small on my screen and I can enlarge it on a separate screen.

MS. SILVERSTEIN: And this will be Exhibit 1.

(Deposition Exhibit No. 1 marked for identification.)

THE WITNESS: Should I be downloading this and saving it on my computer or will you share when we need to revisit it?

BY MS. SILVERSTEIN:

Q. If we are revisiting this, I will share, and if you need to take a look at it, let me know and I'll pull it back up for you.

A. Okay.

Q. Dr. Reynolds, this is the errata for Mr. Cagiano's appendix one, right?

A. Yes.

Q. Does this appear to be a fair and accurate copy of that errata?

A. Yes.

Q. It notes an error in chart three, column E, correct?

A. Yes.

Q. When did you discover this error?

A. It was after the deposition, and there was a question about Mr. Cagiano's exposure calculations, and I went in and reviewed the spreadsheet and then I found this

error.

Q. What was your process for reviewing Mr. Cagiano's spreadsheet to discover this error?

A. I went through and I just checked the different calculations just to see if there were any other discrepancies, and then this discrepancy was obvious. There was a typo in the formula where it was pulling from an empty cell. It should have been pulling from a cell that had an ingestion volume entered into it.

Q. Did you go through that, you know, proofreading or checking process before February 17th -- or February 7th? Excuse me.

A. Yes, before this was produced, yes.

Q. When you say before this was produced, are you referring to before the errata was produced or before the original report was produced?

A. Before this errata was produced.

Q. Okay. And this is an errata for an appendix that you submitted with your February 7th report, correct?

A. Yes.

MR. MICELI: Excuse me. Object to the form only because I don't understand the question but --

BY MS. SILVERSTEIN:

Q. Prior to -- so if I call appendix one for Mr. Cagiano that was submitted on February 7th the original

Cagiano appendix, will you know what I'm referring to?

A. I think I need clarification on that.

Q. Sure. You submitted an appendix one for Mr. Cagiano on February 7th, correct?

A. Correct.

Q. And this errata shows changes to that February 7th appendix, right?

A. That's correct.

Q. So if I call the appendix that was submitted with your report on February 7th the original appendix, will you know what I'm referring to?

A. Yes. So now we're clarifying that the February 7th appendix one with the errata, with the updated information, the corrected version, now we're calling that the original?

Q. So there are -- you submitted two different appendices for Mr. Cagiano, right?

A. Yes. There's what I would call the original and then there's this errata which is updated, corrected.

Q. And the original is the appendix as it existed on February 7th, correct?

A. Oh, yes. I see what you're saying. Yes, yes, that's correct.

Q. Okay. Okay. So the original is what the appendix looked like on February 7th and the errata

appendix is what it looks like on August 6th; is that fair to say?

A. Yes.

Q. What kind of proofreading or QC, quality check, kind of process did you go through prior to February 7th?

A. Prior to February 7th, I would review the spreadsheets, the calculations and look for -- Excel will flag some cells that are inconsistent, but it's -- with the way this data is entered, it's not uncommon to have changes in the cells over time because the plaintiffs were moving in different places. There were breaks in the time they were on base; they had leave.

So there were frequent breaks in the calculation, so I couldn't fully rely on Excel to flag where there was a change which might -- in a typical spreadsheet, might flag an error, but there were a lot of flags in these because there were clear and necessary changes that would happen through the spreadsheet.

So I was -- because Mr. Cagiano's report was flagged when we were in conversation at the last deposition, I went through and checked different cells and different flags that Excel had and then this was identified.

Q. Had you checked those flags that the cell had prior to February 7th?

MR. MICELI: Object to the form.

A. I have done checks of the data throughout the process, but I had a typo that --

Q. Sorry. Go ahead. I didn't mean to interrupt you.

A. I said that I didn't catch previously. So there were multiple times that I revisited the spreadsheets and did checks and made sure things were consistent, but this one escaped me.

Q. After your June 25th deposition, did you go back and check the equations in any other spreadsheets?

A. I did.

Q. Which spreadsheets did you go back and check?

A. Over time, I've gone back and checked all of them.

Q. And after your June 25th deposition when you went back and checked the other spreadsheets, what was that -- what process did you follow?

A. I went through and just checked where Excel might have flagged different places where the formula changed and just confirmed that there weren't typos like you see in this example, but that the formulas were consistent throughout. Even though they may have changed due to different input variables, they -- I did not find any other typos like this.

Q. Did you go back in at any point and make sure that you still agreed with the equations that were in your spreadsheets?

A. No. The equations and the methodology stayed the same. There was no concern with changes to the methodology.

Q. Did you check any cells or equations that weren't flagged by Excel?

A. Yes. I went through cells that weren't flagged and cells that were flagged just to get a solid foundation and, you know, remembering why I chose some of the formulas that I chose and some of the input variables.

So I checked cells that may have had changes in the formula because of different input variables and also just cells that -- you know, just verifying that the formulas were correct in there.

Q. Would it be fair to say then that, you know, you've gone through Mr. Cagiano's spreadsheet and you verified that there aren't any other errors or typos in that spreadsheet?

A. I did not identify any other typos in that spreadsheet.

Q. I'm going to go ahead and exit out of this, but if you need to see it again, please let know.

Did you at any point go through every single

cell that has an equation in it in the spreadsheet and verify that they were correct?

A. Through the process of creating the spreadsheets, there were a lot of checks and balances along the way. So at some point, every cell has been checked, but I can't say that I checked every single cell since my deposition. There just wasn't -- hasn't been enough time to allow for that.

But I did go through and skim different spreadsheets, do some checks throughout to make sure there weren't inconsistencies that weren't explainable through different data inputs.

Q. Did you check all of the cells or equations used in Mr. Cagiano's spreadsheet?

A. I believe so, yes.

Q. And when you say you checked all the cells in Mr. Cagiano's spreadsheet, is that the spreadsheet that reflects the corrections to the typo for the errata chart, errata appendix?

A. Yes, I've gone through and verified the formulas in the errata that was produced.

Q. And the other checks that you did after your June 25th deposition, would it be accurate for that to be described like a spot check of the different equations?

A. It depends. Some of the more complicated

exposure profiles I went through in more detail, and others, I did more of a spot check.

Q. When you say the more complicated exposure profiles, which plaintiffs are you referring to?

A. There's a variety of plaintiffs that had exposures that spanned different areas where the concentrations of the contaminants might have been different or had different activities that were split between two different areas.

So those naturally produced more complex spreadsheets as we accounted for residential exposures, work exposures, different activities over a week. So those would be the more complex ones.

And, also, if they had deposition-informed ingestion information, then those were more complicated, just more input variables associated with it, versus, let's say, a Marine in training with default ATSDR ingestion variables.

So just by nature of where they lived and if there were multiple locations where contamination concentrations were different, where their activities were highly deposition-informed and not just default parameters, then those were much more complicated spreadsheets.

Q. Are there any specific plaintiffs that you

remember falling into this more complicated exposure profile bucket?

A. I don't know if I have them memorized exactly, but, I mean, there were multiple. We could look at the calculation summaries and see where a lot of those assumptions were different for different plaintiffs. So that's been produced.

Q. Okay. But off the top of your head, you don't remember which plaintiffs you were describing as more complicated?

A. I hate to throw out a name, because I'm not sure why I remember certain names necessarily, but, yeah, I think it would be best to look at the calculation summaries and look at where some of the -- or even the spreadsheets and look at where some of them are more complex than others.

Q. Okay. Do you remember any plaintiffs that you didn't go back and do a comprehensive review of their calculations for?

MR. MICELI: Object to the form.

A. Well, I have already stated that not all of them were what I consider comprehensive re-checks or reviews so -- but I don't remember specifically which.

Like I said, if it was a more complicated spreadsheet, I spent more time just verifying the formulas

and as they changed over the scenarios of when maybe they went on leave or changed their work locations or resident locations. So those are ones as I scan through, I would spend more time on.

Q. Okay. For the plaintiffs or the spreadsheets that you're describing as more complicated exposure scenarios, did you go back through those spreadsheets and look at, you know, the equations in every cell?

MR. MICELI: Object to the form.

A. I would not say every cell, no.

Q. Would it be fair then to say for the plaintiffs that have more complicated exposure scenarios, you spent more time reviewing the spreadsheet, more time verifying it but didn't look at every cell? Would that be accurate?

MR. MICELI: Object to the form.

A. In general, yes, I spent more time verifying the more complex exposure assessments.

Q. So then kind of in that same line, would it be accurate to say that for the plaintiffs with less complicated exposure scenarios, you spent less time going back through the spreadsheet and verifying the equations?

MR. MICELI: Same objection.

A. Well, it's a bit relative, right. So if there's less information, even if I went through at the same detail as something that was more complicated, it would

likely take less time because there's less cells; there's less information to go through.

So, you know, it's relative in terms of how much time would need to be spent, but I would say it was -- it was quicker to go through the more simplistic exposure profiles, and there were not necessarily any changes to the formula in some of the simpler ones.

They were always at the same location, work and residence, so the formula didn't change throughout the spreadsheet. So it wouldn't necessarily require going through every single cell to know that you could spot-check every ten and see that the formula hadn't changed.

Q. Okay. So then for those plaintiffs with less complicated exposure scenarios, you -- in your opinion, you know, you didn't need to go through every single cell to adequately review the charts; is that fair?

MR. MICELI: Object to the form.

A. I would say that by doing the spot-checks, it essentially tells you what that section of cells are like. So where we caught the error with Mr. Cagiano, that is where there was a change in the input variables, in his exposure.

So for a spreadsheet where there aren't those changes, you could spot-check every ten cells and

know that the formula was copied correctly.

MS. SILVERSTEIN: Okay. I'm going to go ahead and pull up what we can mark as Exhibit 2.

MR. MICELI: For the record, Kailey, do you want to just read off what they are so the court reporter can make sure she has them. Exhibit 2 is Tab 4?

MR. MICELI: I will go ahead and read off the number once I get it pulled up on the shared screen.

MR. MICELI: Thanks.

(Deposition Exhibit No. 2 marked for identification.)

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, can you see my screen?

A. Yes.

Q. And this was provided to us as PLG-expert_Reynolds_0000000124_underscore confidential.

I know you can't see the entire spreadsheet on the page at one time, so I will do my best to scroll to the parts that I'm asking questions about, but there is -- if there is a part that you need to see in order to answer a question or you're not able to see whatever cell I'm referring to, please let me know.

A. Is it okay if I pull it up on my screen?

Q. Yes. And, Dr. Reynolds, do you recognize this spreadsheet as the spreadsheet -- the spreadsheet for the

corrected appendix for Mr. Cagiano?

A. Yes, I believe so.

Q. And I will represent that the information we were provided by counsel is that this is the corrected appendix for Mr. Cagiano.

I want to go ahead and look at chart one which begins at row 49. Do you see that?

A. Yes.

Q. And chart one is Mr. Cagiano's exposure to the four chemicals based on one liter of water consumption per day, right?

A. Yes.

Q. I'm going to scroll down to row 96. Do you see row 96?

A. Yes.

Q. Row 96 showed your calculation for the cumulative exposure for Mr. Cagiano for the four chemicals based on him drinking one liter of water per day, right?

A. Yes.

Q. In column A, this is the total number of days that you determined Mr. Cagiano was on base, right?

A. Yes.

Q. And so to -- so cell A96 that says 1,056, that's your determination of the total days that he was on base exposed to the water, right?

MR. MICELI: Object to the form.

A. That's his total day, yes, on base.

Q. And we can see -- do you see the equation at the top when I click on cell A96?

A. Yes.

Q. And that says SUM (A52 through A95), right?

A. Yes.

Q. Which means to determine how many days he's on base, that 1,056 number is adding up every cell from A52 all the way down to A95, right?

A. Yes.

Q. And, for example, you do something similar to determine his cumulative consumption, right? You'd add up what was he was exposed to in column C for every time period he was on base, right?

A. Yes.

Q. So I have a question then about the equation that is in cell C96. Can you see that equation at the top?

A. Yes.

Q. It says SUM (C76 to C95), right?

A. Yes.

Q. Which means that it's adding all the cells starting here at row 76 through row 95, right?

A. Yes. I'll add that chart one was not used in my summary, my narrative of which charts that were used to do

the exposure.

Chart one was just set up as a template, and it's the successive charts that had the information that was specific to the exposure.

So in my narrative, I talked about how chart one was just a template. It shouldn't be used for exposure assessment. It was just setting up the equations.

So I didn't even check chart one, because I didn't use those in what I was reporting as the exposure assessments that should be used.

Q. Dr. Reynolds, you submitted all of the charts as the appendix for Mr. Cagiano, right?

MR. MICELI: Object to the form.

A. I submitted the charts and provided a narrative stating the intent of chart one, and in my report, it also talked about chart one being a template.

So chart one wasn't consistently unified with the methodology of adjustments for proportionate time. It was just focusing on one liter of concentration, but the detailed charts and the exposure assessments have been in successive charts after chart one.

Q. Okay. So then would it be fair to say that chart one does not accurately represent the assumptions that you made in determining a plaintiff's exposure?

MR. MICELI: Object to the form.

A. Chart one was not intended to be used in any additional assessments. It was a template at a one liter -- default one liter exposure, which is far less than what anyone would be exposed to in these scenarios, and just to set up the template for the successive charts.

Q. Dr. Reynolds, you'd agree with me that the equations C -- SUM (C76 to C95) doesn't accurately reflect how you would determine Mr. Cagiano's cumulative consumption for TCE, right?

MR. MICELI: Object to the form.

A. Chart one was not intended to calculate Mr. Cagiano's cumulative consumption. It would be the successive charts that were used in the exposure assessment.

Q. You would agree with me that in the row that you said a few minutes ago calculates his consumption for one liter, you know, his cumulative consumption for one liter of consumption, are you saying that that -- you know, this chart actually won't represent that?

MR. MICELI: Object to the form.

A. I am saying that chart one is not useful for exposure assessment with the specific scenarios that were necessary for these plaintiffs to consider.

Q. Is that true for all 25 plaintiffs that chart one

is not useful for determining their exposure?

A. Some of the chart ones may be accurate if you were considering a one-liter exposure, but none of them include the exposure variables that would be necessary to do a plaintiff-specific exposure which was the intent of the successive charts and the intent of what I was trying to produce for the exposure assessment.

Q. How would we know which chart ones are representative and which are not?

A. None of the chart ones are representative of a site-specific exposure profile.

Q. Let's go ahead and exit out of that.

And, Dr. Reynolds, I'm going to keep going for a little bit, try not to take too many brakes during the deposition. So I'll definitely take a break at some point, but if you need a break for any reason, before I suggest we take one, let me know and we can go off the record. I know we've been going for about an hour.

A. Okay. Thank you.

(Deposition Exhibit No. 3 marked for identification.)

BY MS. SILVERSTEIN:

Q. So I am putting in the chat Exhibit 3. Dr. Reynolds, can you see my screen?

A. Yes.

Q. This documented was provided to us as PLG-expert_Reynolds_0000000064_confidential.

Do you recognize this as the spreadsheet for Miss Amsler exposure?

A. Yes, it appears to be.

Q. And I am in the first tab. It says Amsler exposure data summary. Do you see that?

A. Yes.

Q. And based off our conversation a few minutes ago, it sounds like column C, which says chart one, one liter should not be used for assessing Miss Amsler's exposure; is that right?

A. I would recommend using the successive charts because chart one was intended to be a template to set up the successive charts which had plaintiff-specific and site-specific input parameters which would be expected to be more accurate.

Q. Are you aware that other experts, like medical experts, relied on your reports in preparing their own reports?

A. I do know that other experts were given my report for their assessment.

Q. Did you at any point make sure that those other experts knew that chart one shouldn't be used for determining a plaintiff's exposure?

MR. MICELI: Object to the form.

A. I have not had conversations with the other experts related to that.

Q. Would it be fair to say then that you don't know whether or not other experts relied on chart one in their analysis? Would that be fair?

A. I would say that they were informed about the intent of chart one in my report. I don't know what was communicated to them, no.

Q. The second tab here at the bottom says Amsler model cumulative, right?

A. Yes.

Q. And is this tab -- are these the charts that you prepared in assessing Ms. Amsler's exposure?

A. Yes.

Q. If you look at column F, row 11 through column I, row 11, do you see those four cells that are purple?

A. Yes.

Q. Why are those cells shaded in purple?

A. Those cells were to indicate that in the dates that are listed, there were duplicate months. So there was a break in -- in those months, there was a break in potentially number of days exposed and so I didn't want to add -- if I was tallying up the total concentration of TCE in row F, I didn't want to add 10 and 11 because it would

be duplicative and provide a higher number.

So I didn't want to count that month of May concentration twice. So I shaded that purple to flag and remind myself not to add that to the total.

Q. And is that what the May 1st through 24 and May 5th through 20 -- May 25th, excuse me, through 31st, are you referring to that set of dates?

A. Correct. So May 25th to May 31st list the TCE concentration again for the month of May, and so I didn't want to add that in the total tally.

Q. Why is that month split into two?

A. I don't recall. I don't recall if there was a reason for that to be split.

Q. Okay. So looking at cell F28, it shows the equation here SUM (F3 through F24) minus F11. Do you see that?

A. I do.

Q. And you used that the minus F11 to make sure you didn't double count the month of May, right?

A. Correct.

Q. I wanted to scroll down and look at chart three. Can you see chart three on this screen or in the Excel sheet on your computer, if you have it pulled up?

A. Yes.

Q. So that same time period for Ms. Amsler's

exposure of May 25th through May 31st, is that here in row 95?

A. Yes, that appears to be.

Q. Would it be fair to say that you used the same exposure period for both exposure scenarios that you calculated for Miss Amsler?

A. Could you repeat that, please?

Q. Sure. So charts two and three for Ms. Amsler, did you assume that she was on base for the same number of days in each chart?

A. Yes.

Q. And would it be fair to say that the difference between the two charts is how much you modeled Miss Amsler drinking?

A. Yes.

Q. Cell E109, so chart three, is where you add up the exposure for all the time period for Ms. Amsler in the scenario of chart three, right?

A. Yes.

Q. So I want to click on the -- and you have -- it says the equation is SUM (C87 through C108), right?

A. Yes.

Q. You did not subtract cell C9 -- yeah, you did not -- excuse me. Let me start that question over. I tripped over myself.

You did not subtract the value of cell C95; is that right?

MR. MICELI: Object to the form.

A. No. It wouldn't make sense to do that because that represents -- cell C95 represents seven days of exposures in that month of 21 micrograms per liter month of TCE. So you would want to keep that in. That's part of her exposure. That should be added to the total.

Q. Why did you consider it double counting in the initial chart when you're adding up the exposure there but not in chart three?

A. Because the other chart, what's being added together is the total concentration of TCE over the time period by month. So I didn't want to add May twice as a month of concentration. So that column was adding up total concentration of TCE microgram liter per month.

And so the column you're referring to now is adding up the plaintiff's exposure which happened during the 24 days of May; it happened again in the seven days in May, and so you would want to include that. That's the total month's exposure she had, but I didn't want to count the month concentration twice for May.

Q. Why is May split out in this chart, in chart three?

A. As I'm looking --

MR. MICELI: Excuse me. Object to the form.

A. If you look at the formulas between where the color changes from green to blue, the formulas are slightly different. So there's a change in the proportionate exposure. I think if we look at the calculation summary, it will explain what those inputs specifically were.

Q. When you say the calculation summary, what are you referring to?

A. It's the produced material that had the summary of my calculations, had the formulas listed and some of the input variables explained.

Q. Are you referring to that sheet of paper with your equations that we went through at your last deposition?

MR. MICELI: Object to the form.

A. Yes. It was a produced material called, I believe, calculation summary.

Q. Are you able to tell, looking at these equations, why -- why you made a different assumption for the same month?

A. Yes. So in the green cell, it's accounting for exposure two days a week, and in the blue cell, it's accounting for exposure seven days a week.

So in this plaintiff's deposition, there was

likely some information that during the top part of this chart, her exposure in the contaminated area was only two ways a week, visiting on base, for example, versus seven days a week which might be a shift to living there or having more full-time contact there.

Q. So you're saying that cell C94 in the other green cell accounts for two days per week; is that right?

A. Yes.

Q. What -- looking at this equation here, where is the two days per week accounted for?

A. In the equation F91, that's in the equation, that's pulling from the two-days-a-week exposure.

Q. So when you have A94 divided by seven, is the divided-by-seven referring to two days per week?

A. Yes.

Q. Okay.

A. It's normalizing -- so you have -- you have total days in a month, and then you're normalizing that to weeks -- or days per week and then multiplying that by the two days per week they were exposed at this level that's being considered here.

Q. Okay. So it's A94, the total days, divided by seven to get one day per week and then you're multiplying that by two; is that right?

MR. MICELI: Object to the form.

A. Yes. You normalize the month into days per week and then -- or days per month. You normalize it to days per week and then you multiply it by the number of days per week that they were exposed.

Q. I want to ask you about chart two for Ms. Amsler. In chart two, you would have the same exposure assumptions as you do in -- you would have the same assumptions about how many days Miss Amsler was exposed as you do in chart three, right?

A. Yes.

Q. And the difference is how much you assumed Miss Amsler drank while she was on base; is that fair?

A. Yes.

Q. Look at cell E60. Do you see the equation for cell E60?

A. Yes.

Q. It says A60 divided by seven, times F64, times G60, times D60, times G61, right?

A. Yes.

Q. A60 is the total number of days that you assumed Miss Amsler was on base, in this case, 13, right?

MR. MICELI: Object to the form.

A. Yes. Pulling from cell A60, that's the total number of days exposed.

Q. So you took the total number of days exposed

divided by seven, right?

A. Yes.

Q. And then you did times F64 which is two days per week, right?

A. Yes.

Q. Then you multiplied that by 1.45 liters per day, which is cell G60, right?

A. Did you say G60 or G6?

Q. G60.

A. Correct, yes.

Q. And then you did -- multiplied that by D60 which is one microgram per liter per month, right?

A. That's correct.

Q. And then the last thing there, the G61 is 0 point -- you multiplied by 0.17, right?

A. Yes.

Q. Does the 0.17 that you used, cell G61, that's -- the equation there, that's four divided by 24, right?

A. Yes.

Q. Does that mean that you determined for the time period in row 60 that Miss Amsler was consuming water on base for four hours out of the 24-hour period?

A. Correct.

Q. And, presumably, that assumption is based on something in Ms. Amsler's deposition or other records,

right?

A. It's part of my professional opinion. She reported, as I recall, visiting the base for like play dates, and there wasn't a specific time frame, but reported spending lots of time there, you know, having recreation activities.

And so I submitted in my materials reviewed some references that talked about the average play stamina amount for a child around her age, and so from the sources that were referenced there, pulling those together, they vary between -- I can't remember -- like two and a half hours to five hours, and so I took an average of that which was around a little bit less than four hours, and that's where we got this four-hour exposure in 24 hours.

Q. Okay. So you based the four hours in 24 hours on, you know, Ms. Amsler's deposition testimony that she was on base for play dates and your review of the literature about how long a play date would probably last; is that fair?

MR. MICELI: Object to the form.

A. That's the methodology I used, yes.

Q. I want to look then at chart three. The equivalent -- the same time period in chart three is in row 87, right?

A. Yes.

Q. I want to go ahead and look at cell E87 which is the same -- you know, the same cell for the different exposure scenarios, right?

A. Yes.

Q. And the four hours of a 24-hour day in chart three is in cell G88, right?

A. Yes.

Q. Looking at the equation here for cell E87, it looks like you didn't multiply by cell G88; is that fair?

A. That's correct.

Q. Why did you not account for the four hours of the 24-hour time period in cell E87?

A. I would say that additional volume should have been considered which would have increased her overall exposure concentrations.

Q. I'm sorry. I'm not sure I quite follow. Are you saying that the 0.17 didn't need to be accounted for or should be accounted for?

A. I believe that should have been accounted for.

Q. So would it be fair to say then that that's an error or typo or something in cell E87?

MR. MICELI: Object to the form.

A. I believe, yes, that's an omission that should have been included.

MS. SILVERSTEIN: I'm going to go ahead and

stop sharing my screen. And we've been going for a while here. I think it would be a good time to take a short break. We can go ahead and go off the record.

MR. MICELI: Five, ten minutes? What would you like?

THE VIDEOGRAPHER: The time is 11:47. We're off the record.

(Recess taken, 11:47 a.m. to 11:58 a.m.)

THE VIDEOGRAPHER: Time is 11:58. We're back on the record.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, did you talk to anybody during the break?

A. Yes.

Q. Who did you talk to?

A. I talked to David and Jenna.

Q. Did you talk to either David or Jenna about the substance of your testimony?

A. No.

Q. Did you talk to anybody other than David and Jenna?

A. No.

Q. Earlier, maybe 20 minutes or so ago, you were talking about chart one. Do you remember that conversation?

A. Yes.

Q. And you said that chart one, the one liter of consumption is meant to be a template chart; is that right?

A. That's correct.

Q. What do you mean by template chart?

A. I mean it was utilized to construct what some of the straightforward input parameters would be in terms of dates and monthly concentrations, because I wanted to make sure that I had those listed, because then other charts would pull from that basic information. And then just to check the formula in setting up the different cells, I just put a one-liter default in that chart.

So if that chart was used, it would be typically a much lower concentra -- or not concentration, much lower ingestion volume consideration than what the plaintiff-specific input variables would be. So I just used it to set the dates and the monthly concentrations from the references that I had.

Q. So the template, insofar that it shows the same, you know, dates and ATSDR mean monthly concentration that you used in subsequent charts; is that fair?

A. As a general methodology, that's where I listed the dates and the concentrations to initially pull from for the site-specific and plaintiff-specific scenarios.

Q. When you say the concentrations, are you referring to the mean monthly concentrations that were modeled by the ATSDR?

A. Yes.

Q. In chart one, you -- it shows a calculated cumulative consumption for each chemical based on one liter of consumption, right?

MR. MICELI: Object to the form.

A. Yes.

Q. Would it be then correct to say that the equations that you used to derive that cumulative consumption for one liter are not the same equations that you used in subsequent charts?

MR. MICELI: Object to the form.

A. They're the same, to the extent of what input variables were considered in those tables. So the number of days and the concentrations would be the same, but the ingestion volumes and other site or plaintiff-specific input variables change in successive charts.

Q. So specifically about chart one, would it be correct to say that chart one for one liter of consumption daily doesn't consider other site-specific information besides the monthly mean concentrations?

MR. MICELI: Object to the form.

A. Not always.

Q. When you say not always, what do you mean?

A. Sometimes I used chart one template to continue to add some of those site or plaintiff-specific variables and sometimes I didn't.

Q. Okay. So the chart one, across all 25 plaintiffs, in some cases, it might represent the site-specific variables and in others it doesn't; is that fair?

A. Yes.

Q. How did you determine which plaintiffs to include the additional site-specific information for in chart one?

A. It was just part of me setting up a template. I might have wanted to include more of the details in chart one and do a check with the one-liter exposure ingestion volume, so I might have put in some of the site-specific variables.

But as I progressed through my methodology, I didn't -- I realized I really didn't need chart one. It wasn't as useful to set up the successive charts. So sometimes I just did that directly in the successive charts and didn't do it in chart one.

Q. So would it be right to say that, you know, the charts that you did earlier might include more site-specific data than the charts you did later, generally speaking, because of how you learned was most

effective -- most efficient for you to do the calculations? Is that what you're describing?

MR. MICELI: Object to the form.

A. Not necessarily. It wasn't necessarily a temporal thing that I changed as it went on and I found a more efficient methodology. It just depended in time what I found useful to set up my template and test some of the calculations. Sometimes I used chart one for that because it was more simplistic and then I added some of the more complexities.

So it might have been due to a more complex model that was being created or it might have been more efficient to do a certain time point. There might have been different reasons why chart one was more detailed than -- for some plaintiffs than others.

Q. Was there a systematic way that you made that decision or just what you thought made sense as you were doing your evaluation?

A. I would say it was systematic in the way that sometimes chart one was useful for me to test some different variables and sometimes I did that directly in the site-specific and plaintiff-specific scenarios.

Q. Is there a way for, you know, someone else to know whether you included the site specific variables in chart one?

A. It's listed in the calculation summaries.

Q. Okay. So we would look at the calculation summaries and have to figure out whether what you're describing is site-specific variables; is that fair?

MR. MICELI: Object to the form.

A. I would say it's clear in the calculation summaries when other variables were considered other than just number of days, concentration and one liter. I think it's clear when there's other variables that chart one was used to test the methodology.

Q. You also said that chart one doesn't always include plaintiff-specific variables; is that right?

MR. MICELI: Object to the form.

A. Yes.

Q. How -- how did you determine whether or not to include plaintiff-specific variables in chart one?

MR. MICELI: Object to the form.

A. Well, if I did it directly in the successive charts, then I didn't really need to use chart one to do it. So it wasn't a decision of which ones to use chart one to set different things up.

It's just, as I went through, if I had -- if I set up directly in chart two, then I didn't necessarily use the chart one template for the detail that I might have used it in a different plaintiff.

Q. Would it be fair to say that without either the live spreadsheet or that calculation sheet that we talked about here that we went over on June 25th, without one of those pieces of information, someone wouldn't be able to tell whether chart one includes site or plaintiff-specific variables?

MR. MICELI: Object to the form.

A. No, I wouldn't say that, because you can see in chart one what variables were utilized just by the result that you get.

So it's a pretty quick calculation to see if you multiply by days, concentration times one liter, you get one answer versus if there were additional input variables. And all that information is available to, I assume, everyone who has the depositions.

So if somebody had the depositions and had the same information I had in terms of the plaintiff-specific information, then they could reconstruct the same calculation and then be able to tell which variables were used and which formula cells.

Q. Okay. Maybe I'll ask it slightly differently: Looking at the appendix -- appendices you attached to your report, the only way to tell whether or not site or plaintiff-specific variables are included looking at those appendices is by trying to recreate the calculation; is

that right?

MR. MICELI: Object to the form.

A. Not necessarily. My methodology was explained in my report, in my expert report, and the deposition information was available in terms of what ingestion volumes were reported. I made it clear what default values were utilized, and I provided a summary narrative to those calculations. So I would think it would be pretty easy to reconstruct with that same information the same formulas.

Q. Do you agree that they would have to reconstruct it to know whether that information was included, right?

MR. MICELI: Object to the form.

A. No. I mean, my report talks about what data was utilized in the different charts. The titles of the charts talk about what variables were utilized. There's specific ingestion volumes that are listed in the charts, in the format and in the active spreadsheets. So it's pretty clear to see what data was utilized in the formulas.

(Deposition Exhibit No. 4 marked for identification.)

BY MS. SILVERSTEIN:

Q. I'm going to drop into the chat Exhibit 4 which is your report. I'll go ahead and share my screen, Dr.

Reynolds. Can you see my screen?

A. Yes.

Q. And I put a copy of Exhibit 4, your report, in the chat. I know some of the charts are small so, you know, if I need to scroll in or if you need to look at that, feel free to do so.

I want to go ahead and look at appendix two which is for Jefferson Criswell. It's on page 14 of the pdf. Do you see that?

A. Yes.

Q. Now, I want to look at his chart one so I can try and understand a little bit better. So Mr. Criswell's chart one is this chart right here. It says days on base and cumulative contaminant exposure concentration, one liter consumption per day, right?

A. Yes.

Q. Is there somewhere in his chart one that tells us whether, for chart one, you were using plaintiff-specific information and site-specific information?

MR. MICELI: Object to the form.

A. Yes. There are columns that show there's specifics about training time in the field and different locations for work and residence.

Q. Okay. So based on -- you know, it looks like, for example, column five, that tells us whether you were

using -- that you were using site or plaintiff-specific information in chart one, right?

MR. MICELI: Object to the form.

A. Yes. In that column, that is plaintiff-specific information.

Q. And I want to look at another one. So I am at appendix five which is Edward Raymond on page 29 of the pdf. Do you see that?

A. Yes.

Q. And chart one for Mr. Raymond is, again, days on base and cumulative contaminant exposure concentrations, one liter consumption per day, right?

A. Yes.

Q. How can we tell whether you were using site or plaintiff-specific inputs for this chart one for Mr. Raymond?

A. I'd say in this case, there's no information listed that the -- the thing pulled from the cell. So the calculation narrative might have that specific information. If additional information was used in this chart, it would be in the calculation summary, so that would be the first place to check or to run the calculation and verify that we got the same number would be another way to check it.

Q. Okay. So to check, we either have to look at

that calculation summary that you provided or run the equation ourselves, right?

MR. MICELI: Object to the form.

A. Run the calculation yourself, yes, or check the narrative.

Q. Okay. I think I understand. I will go ahead and exit out of that.

How then should chart one be used?

MR. MICELI: Object to the form.

A. I don't think chart one is that useful unless you want to compare it as a really low assessment without a lot of specifics of particular plaintiffs.

So in my report, I was saying that chart one is just a template and that the successive charts are the ones that are most relevant for the exposure assessment.

But if you look at them all side by side, you could think of chart one as a potentially lower dose exposure or somewhere-in-between exposure, but it's missing a lot of the site and plaintiff-specific input values which is really what made this exposure assessment more specific to the plaintiff or the site or the activity so --

Q. Okay. Would it be fair to say then that because chart one doesn't include all the information that you included in subsequent charts, you did not intend for it

to be used in -- you did not intend for it to be used further?

MR. MICELI: Object to the form.

A. I wouldn't say I didn't intend it to be used further. I think it's pretty clear what I used it for and how it was set up. Someone else might find it useful as a really simplistic evaluation of the site, with or without certain input variables which I think are obvious that was added if you look at the calculation summaries.

So it might be useful to somebody, but it doesn't have all of the information that might have been included for a site-specific or a plaintiff-specific exposure assessment.

Q. Would it be fair to say that you didn't spend as much time making -- checking the equations in chart one because you didn't think it would be as useful as subsequent charts?

MR. MICELI: Object to the form.

A. Yes. After I created the more detailed charts successive to chart one, then I really didn't utilize chart one for anything else, and so I didn't go back and necessarily check those because the checks I was doing were in the more site-specific or plaintiff-specific charts.

Q. Okay. Dr. Reynolds, would you agree that, you

know, when describing or expressing a value, it's important to use the correct units for that value?

MR. MICELI: Object to the form.

A. I think as a foundational concept, you want to use correct units for any value you're describing, yes.

Q. And you'd agree that it's possible to multiply different values that are expressed in different units and come up with -- you know, you can get an answer to that equation, right?

MR. MICELI: Object to the form.

A. Could you repeat that, please?

Q. Yeah. So would you agree that you know you can multiply different units to produce a result? So I will give an example, right. You can multiply 25 kilograms times seven days and you can come up with an answer to that equation, right?

MR. MICELI: Object to the form.

A. Sure, yes.

Q. And you want to make sure that you express that equation using the correct units for the inputs to the equation, right?

MR. MICELI: Object to the form.

A. So to your example, if you're multiplying concentration times in kilograms times days, then units would be in kilogram days.

Q. Okay. And if you, you know, multiplied kilograms times days and represented that as kilograms, there would potentially be a piece of the equation not being accounted for, right?

MR. MICELI: Object to the form.

A. As a foundational concept, you want to make sure your units are either being included or they may cancel out with some other adjustments, yes.

Q. When you say cancel out, that means, you know, the -- for example, the unit is accounted for in part A of the equation and then in part of the B of the equation, the way they set up, they cancel out and you don't account for it in the result, right?

MR. MICELI: Object to the form.

A. If they cancel out, then, yes, it would not be considered in the final result.

Q. So kind of as an example, if, you know, the equation was 20 micrograms divided by five liters, you would represent the result of that equation as four micrograms per liter right?

MR. MICELI: Object to the form.

A. Yes.

Q. And similarly, if an equation was four micrograms per liter divided by -- or four micrograms per liter multiplied by five liters, you would -- the liters would

cancel out and the result would be 20 micrograms, right?

A. Yes.

MS. SILVERSTEIN: I am adding to the chat Exhibit 5 and I will go ahead and share my screen.

(Deposition Exhibit No. 5 marked for identification.)

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, can you see my screen okay?

A. Yes.

Q. So this document was provided to us as PLG-expert_Reynolds_0000000069_confidential. The tabs at the bottom are labeled Davis exposure data summary and Davis model cumulative. Do you see that?

A. Yes.

Q. Would you agree then that this is the spreadsheet you prepared for plaintiff Davis' exposure assessment?

A. Yes, it appears to be, yes.

Q. So I am in the second tab which is Davis model cumulative. I want to scroll down and look at cell G103. Do you see cell G103?

A. I do.

Q. Cell G103 is accounting for Mr. Davis' cumulative consumption to TCE at Tarawa Terrace for the time period April 3rd, 1980 through April 30th 1980, right?

A. Yes.

Q. If we click on the cell and look at the equation at the top, the equation is E103 divided by seven, times V87, times F103, right?

A. Yes.

Q. Can you explain what that equation is accounting for?

A. Well, it's chart one. So this equation wasn't something I would say should be utilized in the plaintiff specific, but it was -- this chart was used to set up the dates of exposure, the total days; the concentration of the different contaminants and then a place holder for an ingestion volume.

So that's what this formula or this chart was used to set up, but then the successive charts had different inputs and considerations in the formula.

Q. April 3rd through 30th. So I have chart two up, and the row for April 3rd through 30th is in yellow. Do you see that?

A. Yes.

Q. Why is that highlighted yellow?

A. It looks to me like it was highlighted yellow to alert me that there was a change in the input variables. So there's added exposures to another site that weren't there in the row just above that.

Q. And that other site, is that accounting for

exposure at Tarawa Terrace?

MR. MICELI: Object to the form.

A. Yes.

Q. And can you explain what that cell G188 is accounting for?

A. Yeah. So it's total days exposed for that month divided by seven, so now we have it in days per week, and then we multiply that by V174 which is three days a week he drank six liters and then that's added to four days a week he drank 3.1 liters.

And then added to that -- or sorry -- multiplied to that is the concentration of TCE and then that's multiplied by a proportion of water that would be drank from a residence which is two-thirds and multiplied by a proportionate days per week where all water was consumed in the same barracks. So, yeah, I think I've gone through everything there.

Q. And I want to go back to G103 and kind of walk through how the equation works. Maybe it would be useful to do the same thing in chart two as well, but I think we can start with this one.

So the first part of that equation is E103 right?

A. I'm sorry. You're in chart one. Okay.

Q. Yeah, so G103.

A. Yes.
Q. So that first part of the equation is E103 which is 28 days, right?
A. Yes.
Q. And then you divided by seven. Is that seven days?
A. Seven days in a week, yes.
Q. So seven days per week?
A. Yes.
Q. Then you multiplied by V87 which is one liter, right?
A. Yes.
Q. And then the last piece of that equation is multiplying by F103, right?
A. Yes.
Q. And that's the concentration of TCE at Tarawa Terrace?
A. Yes.
Q. And when you have 123.9, is that micrograms per liter?
A. Micrograms per liter a month, yes.
Q. And those three -- I guess four parameters equal 495.6 micrograms, right?
A. No. So this is an example of a chart one that wasn't complete with proportionate day exposures. So the

days haven't been added back in there or haven't been included in that formula.

Q. What do you mean the days haven't been included in that formula?

A. The number of days per week that the plaintiff would have been exposed.

Q. Okay. And how would you account for days per week?

A. In the successive charts, we accounted for proportion of water consumed at home on routine work days and proportion of water consumed in the field on routine work days, and then that's the proportion of the water consumed.

But in the ATSDR default values that are used in chart two, there's three days and four days at different ingestion volumes, and so those are added to the equation to account for number of days exposed at that ingestion volume.

Q. So you would agree then that the equation used in chart one is not representative of what Mr. Davis' exposure would have been at one liter per day, right?

MR. MICELI: Object to the form.

A. Chart one does not have a complete assessment of the plaintiff-specific scenario, no.

Q. So I want to look then at cell G188 in chart two.

Do you see that cell? And I want to just walk through to make sure that we're on the same page and understand what exactly you're describing in this cell. So the first piece of that equation is E188 which is 28 days, right?

A. Yes.

Q. And you divide that by seven days per week?

A. Yes.

Q. Then you multiply that by the addition of two different variables. So I want to talk about the first part of that internal equation. That's V174 times V172, right?

A. Yes.

Q. V174 is three, right?

A. Yes, three days per week.

Q. And you multiply that by six?

A. Yes, six liters per day.

Q. And that's per one day?

A. Yes. It's a six-liter-per-day exposure.

Q. So looking just at that piece of the equation, how would you -- when you multiply three days per week times six liters per day, how would you write that out or describe that?

A. I would read this to say that using -- this is using the ATSDR default for Marine in training. So it's saying that this number of days in this concentration of

exposure, three days a week, six liters a day were consumed and then four days a week 3.1 liters per day were consumed.

Q. I think I need to ask that question a little clearer. I don't think I was totally clear on what I was asking.

If you were providing the answer to what three days per week times six liters per day equals, what would that be?

MR. MICELI: Object to the form.

A. I don't think I understand. Could you repeat that maybe.

Q. Sure. What is six (sic) days per week times six liters per day?

A. Do you mean three days per week times six liters per day?

Q. So the equation asks for what -- you know, three days per week times six liters per day, right?

A. Yes.

Q. So what is that?

A. Well, do you want me to leave out number of days exposed?

Q. Just the equation, that internal equation, three days per week times six liters per day, what is that?

MR. MICELI: Object to the form.

A. That wasn't -- I mean that's not my full assessment, so I don't -- if we say that three days a week, they drink six liters per day then they drink 18 total liters.

Q. If it's three days per week times 18 (sic) liters per day, it would be 18 liters per week right?

MR. MICELI: Object to the form.

A. If those were the only days water was consumed, yes.

Q. And, Dr. Reynolds, I hear there is more in the equation. I'm just asking about this one piece so I that we can make sure we're following along and on the same page, right?

So you'd agree that three liters per -- or excuse me -- three days per week times six liters per day is 18 liters per week, right?

MR. MICELI: Object to the form.

A. Yes. If they only drink six liters in three days, six liters a day, three days, they would have consumed 18 liters in three days. But if you want to say that only three days in that week they were consuming, then, yes, it would be 18 liters in that week.

Q. When you follow the units through, that's what that piece of the equation shows, right?

MR. MICELI: Object to the form.

A. This shows that, yes, three-day time span six liters was consumed in that week -- in a week.

Q. So the next part of that equation is W174 times W172, right?

A. Yes.

Q. And that W174 is four days per week, right?

A. Yes.

Q. And W172 is 3.1 liters per day, right?

A. Yes.

Q. Okay. And so to do that, to figure out that part of the equation, it would be 12.4 liters per one week, right?

A. In the four days in that week, yes.

Q. Where in the results of -- you know, doing that piece of the mathematical equation, does it specify four days?

A. W174.

Q. Right. So that's the input, right?

A. Yes.

Q. There is the two inputs and then you get the answer that those two -- part A and part B of the equation spit out which was 12.4 liters per week, right?

MR. MICELI: Object to the form.

A. The 12.4 is four days in a week, 3.1 liters was consumed. So only four days of that week. So the

remainder three days, six liters was consumed. That's what that -- the parentheses around those, and then those are added together for a total weekly exposure.

Q. Yeah, and, Dr. Reynolds, just like with last time, I'm just focusing on this part of the equation. I know there's a lot more to that equation, but I want to just focus on how did you do this piece of the equation and figure out what that internal parentheses is.

Does that make sense?

MR. MICELI: Object to the colloquy.

MS. SILVERSTEIN: Sorry, Dave. What was the basis for that objection?

MR. MICELI: You didn't ask a question. You made a speech and I said objection to the colloquy.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, like I just said, I know there is a lot more in that equation. I am just focusing on the highlighted piece that I have here at the top of the equation.

Do you understand that that's what I'm referring to?

MR. MICELI: Same objection.

A. Yes.

Q. Okay. So if I wanted to know what just that piece of the equation is, I would multiply four days for

one week times 3.1 liters per one day, right?

A. Yes.

Q. And the answer -- right. So the four days and the per one day, those cancel each other out, right, the days?

A. Four days per one day?

MR. MICELI: Object to the form.

A. Yes, yes.

Q. Okay. So then days isn't, you know, part of the answer that comes out of that equation, right?

MR. MICELI: Object to the form.

A. Yes. What -- collectively, what that would show is total liters in four days, yeah.

Q. It shows the -- you know, the assumption is it's four days out of the week, but the answer is represented as -- in terms of how many liters per week, right?

MR. MICELI: Object to the form.

A. Yes.

Q. So then what you're doing here with this equation, you're adding that three days and the four days, right?

MR. MICELI: Same objection.

A. Yes.

Q. So you're adding 18 liters for one week plus 12.4 liters for one week; is that right?

MR. MICELI: Same objection.

A. Yes.

Q. Okay. So then to put that in, you'd represent it as 30.4 liters for one week; is that fair?

A. Yes.

Q. So so far -- just to make sure we're following on the same page, so far, the equation that you have is 28 days divided by seven days per week times 30.4 liters for one week right?

A. Yes.

MR. MICELI: Object to the form.

Q. Okay. So then this next piece of the equation is F188, right?

A. Yes.

Q. And that is the TCE concentration at Tarawa Terrace, right?

A. Yes.

Q. So that would be 123.9 micrograms per liter a month, right?

A. So it's days per month, and then those internal calculations we just walked through gives you liters per day, and then micrograms per liter month, the days per month in E188 cancels that out. So we end up with total micrograms.

Q. So I think we -- well, so there's a couple more

factors to put in here first to make sure that we've got the whole equation.

Do you agree that F188 is 123.9 micrograms per liter a month?

A. Yes.

Q. The next cell is W177 which is -- it says in the cell next to it proportion days per week in barracks where all water was consumed, right?

A. Yes.

Q. And so is that saying .428571429 days?

A. No. This is a proportion, so it's unitless. So this would be what proportion of his day in any given week would be -- the water would be consumed at that site. So it's a proportion of three days divided by seven days in the week.

Q. So -- okay. So it's saying three days per seven days per week, he was consuming all of his water --

MR. MICELI: Object to the form.

Q. -- at the barracks; is that right?

A. It's saying that three days out of seven that proportion of the week he was fully in the barracks versus four days where he was -- had proportion days in the field.

Q. Okay.

A. So it's a unitless proportion.

Q. Why is it a unitless portion -- proportion?
A. Because it's a rate of time spent in the field. So it's -- he said that he spent three days out of seven days in the field. So days cancel out and you just have a unitless proportion of time in the field.
Q. Okay. So three days over seven days which is, you know, three-sevenths or this very long fraction; is that right?
A. Yes.
Q. So if I say three-sevenths, you know, do you understand -- am I describing that correctly?
MR. MICELI: Object to the form.
A. Yes, it's the same thing.
Q. And then the last piece here is times W180, right? Do you agree that W180 is showing 16 hours out of a 24-hour day?
A. Yes.
Q. And since it's 16 hours out of 24 hours, would it be right to describe that as 16 over 24?
A. Yes.
Q. You're much better at math than me, but is 16 out of 24 -- if you reduce that down, would you get three out of four; is that right?
A. It's two-thirds. Two-thirds of his consumption occurred at home on routine work days.

Q. Okay. Thank you. I told you you were better at math than me.

And adding all of that total, you get 4304.64, right?

A. Yes.

Q. I want to, you know, go through this equation to make sure I understand how it should be expressed properly. So to do that, if we plug in all of the different pieces that we talked about, it would be 28 days over seven days per week, right?

A. Mm-hmm.

Q. All right. And would you reduce -- you know, I'm not sure. Would you write that as seven days or 28 days for seven days per week or would you write that as four weeks?

A. You have 28 days per month, and then you have seven days per week, dividing that by seven days per week. So if you're dividing, then now you have one-over-seven weeks per days.

Q. So it would be one-over-seven weeks per days, you said?

A. Yeah. So we're dividing days per month by seven. So we're dividing by seven days per week.

Q. Okay.

A. So dividing seven days per week is the same as

multiplying by one -- wait.

If we're dividing by seven days per week, it's the same as multiplying by one-over-seven days per week.

Q. So 28 days times one-over-seven days per week, right?

A. I'm not sure why we're complicating it. It's just 28 days divided by seven will change your days per month into days per week.

Q. Sure, yeah, no. I totally understand. You assumed he was on base drinking the water for 28 days in April, right?

A. Yes, and if we want to convert that to weeks, because the other input variables talk about how many days per week they drank this volume versus how many days per week they drank this volume, so all we're doing here is dividing the days in the month by the number of days per week so we can have our units in weeks so we can multiply by how many days per week they drank different levels.

So -- yeah, and so those should total seven days for a total week. If we have three days they drank this and four days they drank this, then it should total seven days in a week.

Q. Okay. Would it be fair to say that 28 days is -- over a seven-day week, you come out to four weeks? Is

that right or is that not what this equation was saying? I thought 28 days divided by seven days per week was four weeks, but it sounds like maybe that's not quite right, and I'm trying to understand how we would use that piece of the equation.

MR. MICELI: Object to the form.

A. Yeah. So, I mean, if you have -- if you have 28 days in that month and you're dividing by seven, the number would be four, but there are -- there's more than four weeks in some months, right?

So if there's 31 days in a month and you divide that by seven, you're not going to get four weeks. You're going to get four point something. So it's -- you're putting in a proportion.

But there's seven days per week always and then we're comparing that to match values where they're saying how many days per week. That's the unit that we have, the ingestion rates, is by week.

So we have to adjust the month so that we can compare it to the days per week that things were ingested. So if there's 28 days in that month, then, yeah, it would be four weeks but if there's 31 days in the month, then it's going to be four point some proportionate weeks.

Q. Okay. And you'd agree that here it's showing

that there's 28 days in that month, right?

MR. MICELI: Object to the form.

A. There's 28 exposure days in that month, yes.

Q. Okay. Is that not the same as describing it as four weeks then? I'm just a little confused.

MR. MICELI: Yeah, object to form.

A. I wouldn't describe it as four weeks. I would put it in its proportion of weeks.

So, yeah, 28 -- in this case, 28 days in this month of April, that's not the full month, but for 28 exposure days, we divide that by seven so then we can multiply it by three and four days a week that they had different ingestion volumes.

Q. Okay. I think it would be helpful if you walk me through how exactly this equation would work piece by piece.

I know I have the equation here, but I'm trying to understand how -- how we get, you know, from this equation to the total micrograms conclusion.

Does that question make sense?

MR. MICELI: Object to the form. I don't -- well, object to the form.

A. Yes. Okay. So let me just write it as I talk about it.

So we have E188 is 28 days, and then we are

multiplying -- or dividing that by seven, dividing it by seven days per week, which is the same as multiplying it by one week over seven days, and then we're multiplying that by liters.

So within that was the V174 and the V172, we already, I think, walked through sufficiently where these were represented as three days a week, six liters was consumed and four days a week, 3.1 liters was consumed and then that gives you liter units.

And then we have times concentration which is micrograms per liter month. So we have 28 days in a month. We have one week and seven days. We have liters is the volume ingested and then we have micrograms per liter month as the concentration so --

Q. Dr. Reynolds, I just want to clarify real quick and then I'll let you continue. But the liter unit, that's in terms of liters per week, right?

MR. MICELI: Object to the form.

A. No. It's just liters, because we're only talking about that section where we say there were three days, six liters were exposed -- so a week is already accounted for dividing by seven, by normalizing the month to weeks, and now we're multiplying that by days in that week that, six liters was consumed and days in that week, 3.1 liters was consumed.

Q. Where in the equation is -- you know, where does it -- in that internal equation, where does it account for the seven -- for the normalization of seven days?

A. 28 days divided by seven days. 28 days per month divided by seven days. So now we have --

Q. Sorry. Just one follow-up. The divided by seven days is for -- that's dividing cell E188 by seven, right?

MR. MICELI: Object to the form.

A. E188 is divided by seven, yes.

Q. So my question is -- well, I guess first, my understanding was that you said V174 times V172 plus W174 times W172 was normalized by seven days; is that right?

MR. MICELI: Object to the form.

A. So we're turning months into weeks, number of weeks in that month, and then we're talking about how many days in each of those weeks.

So if 28 is the number of days in that month and then we divide by seven, now we have there's four weeks in that month that there was an exposure. And then we know in each of those four-times-three days per week, they drank six liters a day and then add that to four days, they drank 3.1 liters per day and then multiplied by four weeks in that month. So we get that month's exposure because there's four weeks.

So we're saying -- we're not saying it's per

week. We're saying there's four weeks. It's still per month but we have changed a month into a week's unit.

Q. If you look at row 187, that's got two dates for April, right?

A. Yes.

Q. How is it when you are writing something as per liter month, which I think is what you just -- what you just said, how does that account for April being split into two entries here?

MR. MICELI: Object to the form.

A. So when you're talking about expressing something as microgram per liter a month, you're talking about a specific concentration, the monthly concentration.

Q. Okay. And so to get the totally monthly concentration for all of April here, you would have to add row 187 and row 188, right?

A. No.

Q. Why not?

A. Well, row 187 doesn't have an exposure because they weren't present at that location. So we don't have a microgram-per-liter-month exposure in that cell.

Q. So wouldn't it be adding zero for the first two days?

A. Sure, yeah, you could add zero or you could just eliminate those days from the calculation.

Q. Okay. I'm going to go ahead and exit out of this.

Dr. Reynolds, when you were preparing your report, were you aware of what injuries any of the plaintiffs claimed?

MR. MICELI: Object to the form.

A. Yes, I was.

Q. So did you know then that Mr. Davis was claiming NHL as his injury?

A. I don't recall specifically what his injury was as I sit here today, but I do remember when provided deposition information that the plaintiffs were characterized by disease.

Q. Okay. That's fair. I will represent that Mr. Davis is claiming NHL as a disease and we can go from there.

I'm actually going to go back on what I said a minute ago and I'm going to go re-share Mr. Davis' spreadsheet. Can you see my screen okay?

A. Yeah.

Q. And do you see at the bottom where it has Davis exposure data summary?

A. Yes.

Q. Since Mr. Davis is alleging an NHL injury, we could look at the -- well, first, when you say sum of all

locations, that's adding the Hadnot Point exposure and the Tarawa Terrace exposure for the total exposure for Mr. Davis; is that right?

A. Yes.

Q. So the sum-all-locations portion of this chart here, would that be the most representative for your opinions on what Mr. Davis was exposed to or potentially exposed to at Camp Lejeune?

A. The sum of all locations includes his residential exposures where there was contamination to a specific hazard and his work locations. So it's summing the Hadnot Point exposure with the Tarawa Terrace exposure to give you a cumulative exposure of all locations; in this case, these two locations.

Q. Okay. Would it be correct to say then if someone was -- wanted to know what Mr. Davis' potential exposure was overall while he was at Camp Lejeune for TCE, they should look at this row here, row 16 so that they can get an idea of both locations that he was at; is that right?

MR. MICELI: Object to the form.

A. This is just including ingestion through drinking water. So there could be other exposures that could be added to this in terms of this plaintiff's specific total exposure.

Q. You didn't look at exposures other than

ingestion, correct?

A. Correct.

Q. And so, you know, if someone was looking at your work to determine what Mr. Davis' overall exposure was at Camp Lejeune, all they have is the ingestion data to look at, right?

A. Yes. The only thing I covered was ingestion.

Q. Okay. So if they were looking at your work, they would be looking -- would it be correct to say that the best estimate that you have for Mr. Davis' exposure is in this sum-all-locations portion of the chart?

MR. MICELI: Object to the form.

A. I would say that my estimation includes drinking water ingestion exposures.

Q. Okay. I think what I -- you know, I hear you; you're saying that there could be other exposures.

You calculated three different exposures here: Hadnot Point, Tarawa Terrace and the sum of all locations, right?

A. Correct.

Q. Okay. And so if someone was trying to get an idea on Mr. Davis' exposure, looking at just Hadnot Point or just Tarawa Terrace isn't going to give them the full picture of what you determined Mr. Davis' exposure could be, right?

A. Correct.

Q. They would need to look at the sum of all locations; is that right?

A. It depends on context. If they wanted to know what residential exposures were at a specific site which had a different water source versus Hadnot Point, you know, which was a work exposure, there might be reasons you'd want to look at it separately, but in -- and that's why I presented it separately, so you could see what happened at work, what happened at residence and then, you know, collective.

Over that period of time, the most accurate in drinking water ingestion exposures would be to consider these exposures both at work and at home during that time period.

So I would say the most accurate assessment of his exposure during that time period would be the sum of these -- of all locations or in this case, these two locations.

Q. Would you agree that you can compare someone's cumulative -- cumulative exposure to the EPA oral slope factor for any --

Dr. Reynolds, would you agree that you can or a person could compare Mr. Davis' exposure as calculated in your sum-all-locations chart for TCE to the

EPA oral slope factor for NHL?

MR. MICELI: Object to the form.

A. It depends on the context of -- I mean, you're saying slope factors. So if we're talking about cancer slope factors that are related to regulatory risk assessment, then that is likely in different units than what I have presented here as total micrograms.

But you could create a dose:exposure comparison, and that comparison would have its own slope that you could compare with other exposures.

So without clarification of where the slope factor for the comparative is coming from, I would say generally, the methodology would be to make sure you're comparing units-to-units as equivalent.

Q. Okay. Yeah, and thank you for noting my vagueness on the slope factor.

It sounds like, based on what you said, if you were to convert the units for Mr. Davis' cumulative consumption or units for the EPA oral slope factor so that they were expressed in the same units, then you could compare the two; is that right?

MR. MICELI: Object to the form.

A. You would want to make sure they were in the same units, so either converting the EPA slope factor to total micrograms, if it's in micrograms per kilogram, or you

would -- you could take my total micrograms and convert that to the same unit. Micrograms per kilogram day. I don't think I said day.

Q. The EPA, in their oral slope factor, they use the units parts per million or milligram per kilogram day, right?

MR. MICELI: Object to the form.

A. Right.

Q. Apologies, Dr. Reynolds, I didn't catch your answer, if you could please repeat that.

A. Yeah, typically it's expressed in milligram per kilogram day.

Q. And you would agree that the NHL oral slope factor is 2.16 times ten to the minus two risk for one milligram per kilogram day, right?

MR. MICELI: Object to the form.

A. So I am not currently aware -- I don't have it committed to memory what the EPA oral slope factor is for that. So I think that's really a question not for me but for the person who did the exposure assessment or for the toxicologist who maybe did the comparison to the potentially regulatory risk assessment values.

(Deposition Exhibit No. 6 marked for identification.)

BY MS. SILVERSTEIN:

Q. I'm putting in the chat Exhibit 6, and I'll go ahead and share that on my screen.

Dr. Reynolds, can you see my screen?

A. Yes.

Q. On my screen, I'm showing the Integrated Risk Information System for the EPA's --

MR. MICELI: Excuse me. That hasn't been added. It hasn't come in -- oh, here it is. Apologies. It just came through on my system.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, this is the EPA Integrated Risk Information System document for TCE, right?

A. Yes.

Q. I want to go to page 40. Well, first, you've reviewed this document before, right?

A. I've seen this before, but I don't recall reviewing it for what I needed to do for this, but I'm familiar with the document.

Q. So I'm turning to page 40. Do you see page 40?

A. Yes.

Q. And it says here for NHL, the oral slope factor is 2.16 times ten to the minus two per milligram per kilogram day, right?

A. That's what it says, yes.

Q. So said differently, that's saying that one milligram per kilogram day will result in a risk of 2.12 times ten to the minus two, right?

MR. MICELI: Object to the form.

A. I just don't -- this wasn't part of what I did in my assessment. So you're asking me to calculate things now that just weren't part of my report or weren't part of my exposure assessment.

Q. Dr. Reynolds, you are a risk assessor, right?

A. Yes.

Q. And you'd agree with me that right here in the chart, it's saying that the oral slope factor for NHL is 2.16 times 10 to the -- excuse me. It's saying that one milligram per kilogram day will result in a risk of 2.16 times ten to the minus two, right?

MR. MICELI: Object to the form.

A. I haven't reviewed this document in a long time, if ever. So I just -- I would want more time to really review and read the context of this table. I just -- it's not part of what I did for my exposure assessment for this case. It's a --

Q. Dr. -- oh, apologies. Go ahead. I didn't mean to cut you off.

A. It's a 65-page document, and I just would want to look at it, but I can agree that it says here that the

oral slope factor is 2.16 times ten to the minus two. But there may be other nuances in terms of assuming linearity in the dose:response curve, and I just would want more time to look at it. I don't want to provide an opinion. This isn't something I reviewed in the context of this case.

Q. Dr. Reynolds, do you remember the NHL oral slope factor coming up at your June 25th deposition?

A. I don't remember specifically, no.

Q. And it sounds like you're not -- you can't agree that this chart is saying that one milligram per kilogram day will result in a risk for NHL of 2.16 times ten to the minus two; is that right?

MR. MICELI: Object to the form.

A. Again, I would want more time to look at it. I do recall in the previous deposition being asked to calculate what -- if you had a change in risk, what would the concentration be, and it's assume -- making assumptions about linearity of the dose:response curve.

I just would want more time to thoughtfully answer that question, and it's not something I did. It wasn't part of my exposure assessment. I think this is a better question for the toxicologist.

Q. Dr. Reynolds, between your June 25th deposition and today, did you discuss with anyone how to respond to

questions about the NHL oral slope factor?

MR. MICELI: Object to the form of question. Do not answer anything about discussions with counsel, and I'm going to leave it at that. It's an offensive question.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, are you listening to counsel's instruction and refusing to answer?

A. Yes.

MS. SILVERSTEIN: Let's go ahead and go off the record, and I'll just take a short break and then we can finish up.

MR. MICELI: Okay. Before we go on the break -- let's go off the record, but I want the videographer to tell us how long we've been on the record.

The time is 1:11. We're off the record.

(Recess taken, 1:11 p.m. - 1:24 p.m.)

THE VIDEOGRAPHER: Time is 1:24. We're back on the record.

BY MS. SILVERSTEIN:

Q. Dr. Reynolds, would you agree that based on the EPA oral slope factor, it's possible to determine how much exposure an individual can have based on -- you know, if you're looking at a risk of one times ten to the minus four?

MR. MICELI: Object to the form of the question.

A. Well, the purpose of the oral slope factor is that it can be utilized when you calculate a lifetime average daily dose to a contaminant, and you calculate that in terms of milligram per kilogram day which is what the oral slope factor -- the EPA regulatory oral slope factor is represented as. When you multiply those two things, then you get a cancer risk.

So I don't know if that's what your asking. So you can -- if you change that lifetime average daily dose value and you multiply by the cancer slope factor, then you can get a different cancer risk estimation.

Q. If I represented to you that assuming the EPA lifetime risk of -- for a 70-kilogram person over 70 years for TCE, to determine how much exposure to TCE that person could have without going over the one times ten to the minus four risk, that it was 8,227,000 micrograms, do you have any reason to -- I know you haven't done the calculation, but do you have any reason, sitting here today, to disagree with that?

MR. MICELI: Object to the form of the question. Outside the scope of the purpose of this depo.

A. Yeah, I just don't have an opinion on that. It's not something that I did for this assessment.

Q. Okay. Sitting here today, you can't provide an answer to whether or not you would agree with that?

A. I'm just saying that I don't --

MR. MICELI: Excuse me. If the question was over, I'm going to object to the form. I was waiting for Kailey to stop.

THE WITNESS: Could you repeat that question, please?

BY MS. SILVERSTEIN:

Q. Sure. Sitting here today, you can't provide an answer as to whether or not you agree with that -- with that number?

MR. MICELI: Object to the form.

A. It's not a calculation I did or, you know, anything that I've -- was part of my assessment for this -- for this case. So I just don't want to have an opinion about something that I wasn't involved in calculating or reviewing or it wasn't part of my exposure assessment.

What you're talking about are different units, a different purpose for those calculations in a regulatory risk assessment versus a causation related to an exposure. So it's really a completely different scenario that I just am not prepared to talk about today.

MS. SILVERSTEIN: Okay. I have no further

questions at this time.

MR. MICELI: I just have a couple of questions in follow-up, very, very briefly.

EXAMINATION

BY MR. MICELI:

Q. Earlier in your deposition, you were asked some questions. I think we were talking about cell 188. We don't have to go back there, but if you recall, there was some discussion about certain calculations for three days a week and certain exposures for four days a week.

Do you recall that?

A. I do, yes.

Q. Okay. And when it was three days per week, it's six liters a day. I want to make sure that three times six is 18, correct?

A. Yes.

Q. Okay. I thought there was one time where you may have misspoke and said six. I wanted to make sure that was clear.

Secondly, in your report that was disclosed in February, on February 7th of 2025, did you include your narrative summaries with your -- the pdf of your spreadsheet?

MS. SILVERSTEIN: Object to form.

A. Yes.

Q. Okay. And while you were asked very particular questions about calculations for certain cells during today's deposition, were you ever offered the opportunity to review your narrative summaries?

A. No.

Q. Okay. I'm going to ask you just a couple of questions, and I'm going to represent to you that -- do you know who Dr. LaKind is?

A. Yes.

Q. Okay. And do you know who Dr. Lipscomb is?

A. I do.

Q. Okay. I'm going to represent to you that Dr. LaKind agreed with Dr. Lipscomb that risk assessment is not a causation analysis.

Do you agree with that statement generally?

MS. SILVERSTEIN: Object to form.

A. Yes.

Q. Okay. And do you -- I'm going to represent to you that Dr. LaKind agreed with Dr. Lipscomb that EPA MCL's cannot be used as estimates for risk or causation.

Do you agree with that statement?

MS. SILVERSTEIN: Object to form and foundation.

A. I do.

Q. Okay. That'll be -- just since we're talking about foundation, that's at page 133, line seven through 11 of Dr. LaKind's deposition.

And I'm going to ask you if you agree with Dr. LaKind when she agrees with Dr. Lipscomb that reference values from cancer slope factors have no place in estimating causation.

Do you agree with that statement generally?

MS. SILVERSTEIN: Object to form and foundation.

A. I do.

MR. MICELI: Okay. I have nothing further. Thank you. And we're done. Thank you doctor.

THE VIDEOGRAPHER: The time is 1:30. We're off the record.

(Deposition concluded at 1:31 p.m.)

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

BE IT KNOWN that the foregoing proceedings were taken before me; that the witness before testifying was duly sworn by me to testify to the whole truth; that the foregoing pages are a full, true and accurate record of the proceedings, all done to the best of my skill and ability; that the proceedings were taken down by me in shorthand and thereafter reduced to print under my direction.

I CERTIFY that I am in no way related to any of the parties hereto nor am I in any way interested in the outcome hereof.

[ ] Review and signature was requested; any changes made by the witness will be attached to the original transcript.
[X] Review and signature was waived/not requested.
[ ] Review and signature not required.

I CERTIFY that I have complied with the ethical obligations set forth in ACJA 7-206(F)(3) and ACJA 7-206 J(1)(g)(1) and (2).

Dated at Phoenix, Arizona, this 15th day of August, 2025.

<%24306,Signature%>

_____
LAURA A. ASHBROOK, RMR, CCR
Certified Reporter
Arizona CR No. 50360
New Mexico CR No. 587

For Golkow-Veritext
Registered Reporting Firm No. R1061

d

f

n