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SC Court of Appeals

STATE OF SOUTH CAROLINA

IN THE COURT OF APPEALS

Appeal from Richland County

Honorable Clifton Newman, Circuit Court Judge

THE STATE,

RESPONDENT,

V.

NATHANIEL DAVID ROWLAND,

APPELLANT.

APPELLATE CASE NO. 2021-000822

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see here, these towers can cover massive amounts of distance, and so it can be very time consuming to attempt to locate a phone where you're just driving around in circles in the middle of the woods, right?

Q. So in this case, you have the two circles coming together. What does that signify?

A. That just signifies the estimated distance to tower, that these towers received that device.

Q. And you have this here. What does that signify?

A. That signifies the location of the body.

Q. Is it within the circles or outside of the circles?

A. It's hard to tell. It's just around where those set -- those distance to towers overlap.

Q. So, it's where they overlap?

A. Near it.

Q. All right, and what does this signify?

A. This signifies another tower that was used on the south side of where that body was located at 4:41 AM.

Q. And what does this look -- this signify, excuse me?

A. This signifies the additional towers that are being used. So, it's important to understand that, you know, we may be seeing towers kind of surrounding this area being used, and it's likely because this area is being covered by multiple towers. Multiple sectors are overlapping in this area.

Q. And in your expert opinion, does that mean the device is somewhere in this area?
A. Yes.
Q. Not in downtown Columbia?
A. Correct.
Q. And so at 5:01:52, what does this signify?
A. This signifies -- so at 4:52, again we have tower 1726, and that sector is facing south. And then at 5:01, we have a tower to the west, just to the west that's 1702. That's sector number one. Again, that's sort of facing that general area of where 1726 is. So, it's possible that the phone is between where those two sectors are opening up.
Q. And this is again the phone associated with whom?
A. Nathaniel Rowland.
Q. And what does that signify?
A. So, now it looks like the phone is potentially traveling back west. So, we have a tower here, 17 -- tower 1702 being used at 5:01. And then we have tower number 40, which is back toward east Sumter, at 5:12 AM.
Q. And so again you have this three line. What does that signify?
A. Those signify the, the sectors of the towers there. That, that specific tower is being used.
Q. And then what does this signify?

A. Again, we see tower number four is being used at 5:21 AM, and that's going to be facing toward the west side of east Sumter, and then at 5:27 -- looks like 5:45 we have tower transactions that occur on tower 566, which is much closer to the Sumter area.

Q. And you have here this location of interest, [redacted] Broad Street. What is that?

A. Honestly I do not recall what that is. It's a location of interest that was provided.

Q. That's what I mean. It's a location of interest?

A. It, it is.

Q. And this is -- I think you said this, but this is Broad Street where?

A. In Sumter.

Q. At 5:45?

A. Yes.

Q. And that's again whose phone?

A. It's associated with Nathaniel Rowland.

Q. What does this map show?

A. This again shows more progression in time and the towers being used at 6 AM and then at 6:16. And as you can see, at 6 AM we have two towers that are being used around the Shaw Air Force Base area, and then at 6:16 we have a tower being used west of that location.

Q. So, earlier we saw something similar, would that be

fair to say, going the other way?
A. Potentially, yeah.
Q. Now at 6:16, where is this?
A. This is west of Sumter.
Q. And where is Colombian in reference to this?
A. West.
Q. Okay, and what does this signify?
A. This shows towers that are being used between 6:21 AM and 7:08 AM, and this is -- appears to be on, again, back toward the east side of Columbia.
Q. And you have here this address?
A. [redacted] Garners Ferry Road.
Q. And what time is that, that tower near there being accessed?
A. 6:52 AM.
Q. And whose phone is this associated with?
A. Associated with Nathaniel Rowland.
Q. What does this signify?
A. Again, continuation. Actually, I think this is a, just a zoomed-in version of that last slide, and we see the -- a transaction occurring at 6:31 AM and then 6:52
A.
Q. And again it says -- where is the location of interest?
A. [redacted] Garners Ferry Road.

Q. And what does this show?
A. This is showing these towers and sectors that are being used between 7:08 AM and 7:24 AM.
Q. And where are we in reference to -- are we in Columbia now, or where are we?
A. Yes, these towers are in Columbia, the Columbia area.
Q. And at these times, where are we?
A. This is transactions occurring at 7:41 AM, 8:15 AM, and then 8:31 AM.
Q. And are we -- again, where are we? In Columbia or Sumter? Where?
A. This is the Columbia area.
Q. And again, what do these towers mean in terms of the phone is accessing these towers? Where is the phone?
A. That's right. I can't tell you exactly where the phone is, but the phone is in the area within radio range of these towers that are being shown.
Q. And what about this photograph?
A. This is where the phone is between the hours of 8:52 AM and 10:22 AM, and again I shouldn't say where the phone is. This is the tower and sector that are being used by this device during that time period.
Q. And again you have this. What address is this?

A. [redacted] Mountainbrook Drive.
Q. And this is the phone associated with whom?
A. The phone is associated with Nathaniel Rowland.
Q. All right. So, now what does it -- why did you put this line here?
A. This is the phone number -- I believe that's not the correct phone number that was associated with this one. Let's see, go to the next one. We have a VoLTE report, that's right.
Q. What's a VoLTE report?
A. So, the VoLTE report is the voice over LTE. So, so, Verizon records their voice calls in several different protocols, right? We have 3G calls, which I'm -- we're pretty much all familiar with 3G, and, and LTE. And all they do is they provide two different documents, one that says, hey, this occurred. This was a 3G call versus this was a LTE call, and we just call it a VoLTE call, voice over LTE.
Q. And when we're calling on our phones, can we tell the difference between those two things?
A. Not necessarily.
Q. All right. So, what does it signify, the difference, to you?
A. It really isn't much of a difference. It's just in the way that Verizon records these calls.

Q. And so what does this mean for you? You have Columbia switch. What does that mean again?

A. So, this is going to be the area of towers that cover Columbia.

Q. And so again same, the same map example?

A. That's right.

Q. And so this, we've now switched phones. Whose phone is this?

A. This is [redacted]

Q. And who is this phone associated with?

A. This, I believe, is associated with Samantha Josephson.

Q. Okay. So here, why did you -- did you just change the color of the screen, or what does the green signify?

A. It doesn't signify anything. It's just a way to be able to tell on the screen.

Q. Okay, and so at these times from 1:06 to 1:54 and then these times, what do they signify to you?

A. These are the towers that are being used during that time period by [redacted]

Q. And where is the Bird Dog in reference to those towers?

A. Bird Dog is situated kind of very close to -- kind of between those towers.

Q. Could you access those towers if you were at Bird

Dog in that area?

A. For sure that sector here, the tower here that we're seeing down here in 1:54, 4 -- 547, absolutely.

Q. And then we move on to the next at 2:10, 2:14. Where is, where is that?

A. These are calls that are occurring. We have tower 547, sector two, being used here on the left. And then toward the right there we have tower 142, sector one, being used at 2:14.

Q. And you just said calls. Do we know that they're calls for sure, or is the phone just accessing the towers?

A. No. We -- these were calls.

Q. Okay, and at what time?

A. 2:10 AM and 2:14 AM.

Q. And where? What towers are they at?

A. Tower 547 here at 2:10 AM and tower 142 at 2:14 AM.

Q. And that's the last one. You can have a seat.

(END OF POWERPOINT PRESENTATION.)

(A PAUSE.)

Q. So, based on your -- what you've given to the jury and all of the records that you -- again, I want to try to break that down a little bit. Ms. Josephson's phone used towers at Bird Dog in downtown Columbia. Is that what we just saw?

A. Yes, around the Bird Dog area.
Q. And at that same time, what phone towers were Mr. Rowland phone accessing, or the phone associate with Mr. Rowland?
A. Are you talking about during that during that 2 ---
Q. Yes, sir.
A. 2? Yes, the similar towers in the similar area.
Q. And when her phone moved to a different area, did his phone also track in a different area?
A. I believe so, it did.
Q. And you can refer to your notes if you need to. All right, and at some point, his phone tracks or his phone moves to New Zion?
A. The phone associated with Nathaniel Rowland does travel to -- appear to travel to the area of New Zion, yes.
Q. And were you able to get any information on Ms. Josephson's phone at that time?
A. The time period of when the phone associated with Nathaniel Rowland was in New Zion?
Q. Correct.
A. No. There was no activity on that device, on the device associated with Samantha Josephson at ---
Q. Does that mean ---
A. --- that time.

Q. --- the phone wasn't working, or what does that signify?
A. Well, it just signifies to me that the, the phone is not accessing the network. So, those -- you're not going to see anything in those records if the phone isn't accessing the network. And so the phone could be just in a basement somewhere not getting a good signal. It could be turned off. There's various reasons as to why it would not be accessing the network.
Q. And were those the only two phones you were asked to -- records you were asked to get, those two phone numbers?
A. No.
Q. You were -- was it more than one phone?
A. There was.
Q. Multiple?
A. Yes.
Q. All right. I'm just going to go over one of those with you.
MS. SAMPSON: Beg the court's indulgence.
(A PAUSE.)
Q. Where you given a number associated with Xavier McFadden?
A. Yes.
Q. And can you just tell the jury? Where did his

phone show him being at 11:34, 1 -- and at 1 AM on March 29?

A. I believe it was a tower in and around the Turbeville area, just north of Turbeville, I believe.

Q. So, not in downtown Columbia?

A. No.

MS. SAMPSON: Nothing further, Your Honor.

THE COURT: Cross-examination?

MS. GOODE: Thank you very much, Your Honor. May it please the court?

CROSS-EXAMINATION BY MS. GOODE:

Q. Good morning.

A. Good morning.

Q. Okay. So, I've learned a lot, okay. So, I want to kind of go back just a little bit. So, the map that we just saw on this big screen here, you prepared that. That's one you prepared just recently, right?

A. Yes. Originally when I was at SLED, I prepared that, and I combined two of those maps to kind of make it a little more organized.

Q. You updated this one?

A. Yeah. I combined the two, yes, that's right.

Q. Because I think originally we had a, a map that was showing Ms. Josephson's phone or using towers near the Bird Dog around 6 o'clock that morning?

A. Yes. So, upon further examination, we determined that -- so, the software that we use can sometimes not ingest some of these records correctly. So, I determined that the timestamp was incorrect because in those multi records that we mentioned, one of the issues that we have is that some of those timestamps are recorded in local time, and some of them are recorded in GMT time. So, you have to convert for the local time for those specific transactions.

Q. And so that's what we've done now?

A. That's right.

Q. We've corrected that?

A. Correct.

Q. Okay. Now, I want you -- the records you used for your cellular analysis in this case, you testified you used the -- they're not the same records for each phone?

A. That's right.

Q. They're -- it's the same provider?

A. Correct.

Q. But different records?

A. Correct.

Q. So, for the phone associated with Nathaniel Rowland, we have more records, right, or different type of records?

A. Yes.

Q. And they -- it's the RTT information that you're using for that cellular analysis?
A. Correct.
Q. For the phone associated with Ms. Josephson using the VoLTE?
A. That's right.
Q. And those are the -- that indicates calls?
A. Correct.
Q. Right? And so would that indicate calls outgoing only or incoming?
A. It would indicate both, but I'd have to look at the record, refer to the records to determine at what time ---
Q. So, just any ---
A. --- an incoming call ---
Q. --- sort of ---
A. --- occurred.
Q. --- call activity ---
A. That's right.
Q. --- that's going to show up on that report?
A. That's correct.
Q. The one associated with the phone in the cellular analysis you did on Samantha Josephson?
A. That's right.
Q. For that one and the RTT, that specific data, with

-- coming from Verizon, that's a -- that's, that's information that's not stored for a long period of time?

A. Right.

Q. Right, and so in this case, the information from -- related to the phone associated with Mr. Rowland for those dates was received a lot sooner to you from Verizon or was requested sooner, I suppose?

A. I, I believe so. I don't recall date and time ---

Q. Okay.

A. --- which I had requested either.

Q. And that information would have been requested of Ms. Josephson's phone?

A. I believed it was.

Q. But they didn't provide that to you?

A. I don't recall. I think they did, but there may have been -- there may not have been activity during those times.

Q. Okay.

A. And specifically in those RTT records.

Q. And so specifically here today, the cellular analysis that you provided to the jury is for the Verizon records for the [redacted] phone?

A. That's right.

Q. And that is not for the -- for any other phones associated with Mr. Rowland?

A. Correct.
Q. And you were asked -- you weren't asked to map any phones connected to Maria Howard in this case?
A. I believe I was, yes.
Q. And that was a phone that eventually, I think, was determined maybe belonged to her mother?
A. That's what I was told recently, yes.
Q. So, not her actual cell phone, the number associated with her cell phone?
A. It was -- that was the information that I was working with at the time, that that was the number associated with that person.
Q. Okay. You weren't asked to do a cellular analysis on any additional information about obtaining -- about Maria Howard?
A. Correct.
Q. Okay. In this case specifically, did you perform any drive test analysis to study, determine the range or strength of the towers?
A. No.
Q. We use a lot of words on your testimony about it's an estimate, right, or possibly, right?
A. Yeah. That's right.
Q. Potentially but not accurate, not absolutely accurate, right?

A. That's right.
Q. The -- I think yesterday we heard from Lieutenant Dove that some phones, when you do the extraction, you can have GPS locations.
A. Right.
Q. Associated with a phone.
A. That's correct.
Q. Location information if that service is turned on the phone.
A. Correct.
Q. And that is generally more accurate as far as locations, right?
A. Right.
Q. The information that we receive from phone companies related to the towers is a best estimate, right?
A. Yes.
Q. Or an estimate?
A. Well, right. What we're seeing is the tower and sector that are being used, so we know that the device has to be within radio range of those towers in order for those to show in the records.
Q. And so these are theoretical locations of where a device may be at that time?
A. No. We're, we're looking at general locations.

Q. General locations?
A. That's right, so ---
Q. And what's ---
A. --- it's not theoretical that the device could have been there. The device was in those areas, but as far as specifically like what street corner that device was on, we can't say for sure what street corner that that, you know, device was on based on those tower and sector locations, that's correct.
Q. And that information that we discussed in here was from a timeframe generally from about -- I think the first point was maybe around 8:30, 9 o'clock on March 28. Is that right?
A. I think so.
Q. And then the last one being about 10:30 on March 29?
A. I, I believe that sounds correct.
Q. Okay, and this is -- the information provided from Verizon related to the phone associated with Mr. Rowland, this doesn't indicate any sort of text message being sent?
A. Correct.
Q. Any calls being made?
A. Correct.
Q. We're strictly talking about data being used?

A. Correct.
Q. And I don't think we talked on direct about that, what exactly that means. Is that just the phone itself just making some sort of contact with the tower, or is there something on the phone being used?
A. So, so, there has to be some sort of data connections, you know, in order for us to see those, those times and those towers being used, so -- but, you know, I can't tell you if someone was actively, you know, using that phone at that time. You can have data running in the background of your phone, as we all know. Email updates or Facebook updates, that kind of thing. You can be streaming music obviously but not actively texting or calling someone. And when you're steaming music and you're driving around town, obviously you're going to be using the towers, the cellular network, and those are going, those are going to show as data connections.
Q. And again I believe -- and you were very careful to say this is not information related to the person but to the device itself, right?
A. That's correct.
Q. You can't put that phone with a specific person?
A. That is correct.
MS. GOODE: Beg the court's indulgence.

(A PAUSE.)

MS. GOODE: Thank you so much. I appreciate it. No further questions.

THE COURT: Redirect?

REDIRECT EXAMINATION BY MS. SAMPSON:

Q. Would it help if I handed you a copy of your PowerPoint? I want to ask you some questions about it without pulling it all back up.

A. Yes.

Q. And just so everyone knows, can you look at that and make sure what that is?

A. This is the cellular analysis report that we just walked through on the, on the big ---

Q. And just ---

A. --- screen.

Q. --- to be clear, on the page where it shows where the number associated with Rowland was on March 29 from -- at 2 o'clock, can you look at that page for me?

A. Yes.

Q. Where is the phone associated with Nathaniel Rowland being used? What tower is it at?

A. The towers are showing in and around the area of Five Points, Shandon, that, that, that part of the area in Columbia.

Q. And flipping to where Samantha, the number

associated with Samantha Josephson's phone, where was it accessing towers at that same time?

MS. GOODE: Your Honor, I believe we already covered this on direct. It's outside the scope.

MS. SAMPSON: I believe in cross she started getting into whether the locations were correct. I'm just clarifying.

THE COURT: Objection is overruled.

BY MS. SAMPSON:

Q. So, you may answer. Where was her phone?

A. So, her phone between the hours of 1:06 AM and 2:04 AM were in a similar area, using towers in a similar area.

Q. And again, she asked you about general location. What did you mean by the general location?

A. Right. So, all I can tell you is that, you know, this is the tower and the sector that's being used, and that sector is facing the general area. Based on these records, I can't tell you again what exact street corner, you know, that phone is on. I can just tell you that an areas is consistent with being in, you know, the coverage range of that tower.

Q. And what area was he consistently using a phone, consistently using at 4 o'clock and I believe it was 5. You have those pages, so I don't...

A. For the 803-566 number?
Q. Yes, sir.
A. So, we didn't have anything at 4 o'clock.
Q. 5 o'clock, 4:30, that time?
A. 4:10 we have a tower that's located near east Sumter.
Q. And when is the next time?
A. Let's see. 4:13 AM.
Q. And where is it accessing?
A. It's a little further east of east Sumter near Sardinia.
Q. Next one. Well, let's just skip to around 4:45.
A. 4:45 we have two towers that are in the New Zion area.
Q. And then at 5:45, what tower is the location of his phone accessing?
A. 5:45 we have a tower that is located just north of Sumter, in the Sumter area.
Q. And then at 6:45 or so?
A. So, we have -- we don't have anything at 6:45. We have 6:31, 6:52, and 7:08.
Q. And what time are those -- I mean, where are those? I'm sorry.
A. Those are located in Columbia.
Q. And that's, that's consistent with where the phone

is accessing towers, correct?

A. Correct.

MS. SAMPSON: Nothing else, Your Honor.

THE COURT: Anything further?

MS. GOODE: Nothing, Your Honor. Thank you.

THE COURT: Thank you, sir. You may step down.

(THE WITNESS EXITS THE STAND.)

THE COURT: Ladies and gentlemen, we will take a fifteen minute break at this time. Please do not discuss the case.

(THE JURY EXITS AT 11:24 A.M.)

THE COURT: We'll be in recess fifteen minutes.

(OFF THE RECORD.)

THE COURT: Is there anything before the jury comes in?

MS. PINNOCK: Your Honor, Mr. Rowland is not with us yet.

THE COURT: All right.

MR. GOLDBERG: If we may we approach about some scheduling?

THE COURT: All right.

MR. GOLDBERG: Thank you, Judge.

(OFF-THE-RECORD BENCH CONFERENCE.)

(THE DEFENDANT ENTERS THE COURTROOM.)

THE COURT: Bring the jury.

(THE JURY ENTERS AT 11:47 A.M.)

THE COURT: Your next witness, please.

MR. GOLDBERG: Thank you, Your Honor. The state calls Agent Kimberly Mears, Mears.

KIMBERLY MEARS, BEING DULY SWORN, TESTIFIES AS FOLLOWS:

CLERK: Please have a seat. State your full name for the record.

WITNESS: My name is Kimberly Mears. Last name is spelled M-e-a-r-s.

VOIR DIRE EXAMINATION BY MR. GOLDBERG:

Q. Agent Mears, good morning.

A. Hi.

Q. Could you tell this jury who you are, where you're employed, and what you do?

A. I am employed by the South Carolina Law Enforcement Division, which is commonly known as SLED, and I am a forensic scientist in the Latent Print Department.

Q. How long have you been employed at SLED?

A. I've been with SLED since 2007, specifically with the Latent Print Department since 2011.

Q. And prior to that, prior to 2007, did you have any additional work experience, training, education?

A. Just college.

Q. Okay, and can you talk about some of your training

as it pertains to latent prints?
A. Once I was hired by the Latent Print Department, I completed their in-house training program, which typically lasts about a year. I also completed the latent print examiner training program sponsored by the National Institute of Justice, which lasted about ten weeks. Both of those training programs have modules and courses that cover all aspects of fingerprint work, all the way from the history of fingerprints, the growth of fingerprints, to doing comparisons, and writing reports.
Q. Do you regularly participate in trainings and continuing education?
A. Yes. I regularly attend various workshops, conferences, and courses as they become available.
Q. Have you testified in court before?
A. I have.
Q. And have you been qualified as an expert?
A. Yes, I have, about twenty-five times.
Q. All right, and what have you been qualified as an expert in?
A. The wording changes a little bit. Fingerprint analysis and comparisons, fingerprint examination, something along those lines.
Q. All right. Thank you.
MR. GOLDBERG: Your Honor, at this time the state

would offer Agent Mears as an expert in fingerprint analysis and comparison.

MS. PINNOCK: No objection, Your Honor.

THE COURT: She is so qualified.

MR. GOLDBERG: Thank you, Your Honor.

DIRECT EXAMINATION BY MR. GOLDBERG:

Q. Let's start with the obvious question. What is a latent print?

A. So, first let me explain what a fingerprint is. If you look at the palm side of your hand, you will see tiny, little raised lines on your skin. Those are called ridges, and on your fingertips those ridges form patterns: either arches, loops, whirls. On the joints of your finger in the palm of your hand, they have a specific ridge flow unique to the area of the hand. This is also true for your toes and the skin on the bottoms of your feet.

Within the overall pattern or ridge flow, the ridges are not just running uniformly. They -- one ridge may fork into two, which is called a bifurcation. One ridge may just stop, which is known as an ending ridge, or a ridge may be formed just in the shape of a dot. Those are called ridge characteristics, and those ridge characteristics within the overall pattern or flow make up your print.

The word latent means hidden or invisible, meaning it needs some form of development to be seen.

So, those ridges are lined with sweat pores. Throughout the day, you exude sweat. You touch greasy foods or oily items, and that moisture accumulates on your ridges. When you go to touch an object, that moisture is transferred from your skin to that surface corresponding to the ridges on your skin.

Q. So, you mentioned touching an object and transferring that material. Is there a print that is left behind, so to speak, every time you touch something?

A. No, there is not. Leaving a portion of a print or leaving a comparison print is a chance event that depends on the person themselves: how dry their skin may be, how rough the skin might be. Depends on the surface being touched: how textured or if it's fabric or something hard. And it also depends on the environment that that object is in: if it's outside in the direct sun, if it has been rained on or been washed. Those would all affect leaving a print.

Q. All right. Are you able to determine when you are provided with the latent print to examine, are you able to determine the timeframe in which that print was left in whatever location it was found on?

A. No, we are not.
Q. Okay. So, in other words, you can't timestamp a print?
A. If a print is found on a countertop and it is known that that countertop had just been thoroughly washed, that might help, but generally no, we cannot age a fingerprint.
Q. Okay. So, what is your process for taking items of evidence in a case and making comparisons among them?
A. First I do an inventory of my evidence, make sure I have what I'm supposed to have. I then label the evidence with the SLED lab number, the item number, and my initials. And I then go forward to determine if any print is comparison quality, meaning if there's enough information there to compare with a known fingerprint of an individual to then compare to determine if the individual made that print, did not make that print, or if I'm unable to tell for some reason.
Q. Were you provided with a number of items of evidence in the case at hand?
A. Yes, I was.
Q. Some of those were known standards, correct?
A. Correct.
Q. And some of those were latent prints lifted from other locations and other items of evidence throughout

the case. Is that right?
A. Yes, that's correct.
Q. All right. want to show you what's been marked previously as State's Exhibit 6 for identification only and have you take a look at that.
A. Okay.
Q. Do you recognize that?
A. Yes, I do.
Q. What do you recognize that to be?
A. These are the known fingerprints of Nathaniel Rowland, and they are marked with my, my initials and the SLED lab number and the item number.
Q. And did you receive those fingerprints in the proper chain of custody?
A. Yes, I did.
Q. And then did you then use them in order to make comparisons in this case?
A. Yes, I did.
MR. GOLDBERG: Your Honor, at this time the state would move to introduce State's Exhibit Number 6 into evidence.
THE COURT: Any objection?
MS. PINNOCK: Just pursuant to our previous objections, Your Honor.
THE COURT: It is admitted.

MR. GOLDBERG: Thank you, Your Honor.

(FINGERPRINT CARD MOVED INTO EVIDENCE AS STATE'S EXHIBIT NUMBER 6.)

BY MR. GOLDBERG:

Q. All right, now let's talk about a little bit about the comparison process. Tell the jury a little bit about how you compare a latent to a known standard.

A. The ridge characteristics, the ridge endings, the bifurcations in the dots within the overall pattern type or within the overall ridge flow are what I am looking at to determine if there is enough information there to compare. I look at those characteristics and their relationship to each other within the latent or the unknown print and look for them in the known print as well, going throughout the print looking for similarities of the ridge characteristics or any disagreement.

Q. Once you have done that particular comparison, what are the types of conclusions that you could reach on a given item?

A. So, the overall method we use for doing comparisons is called ACEV, standing for analysis comparison and evaluation, the V standing for verification. The analysis portion is where I look at a print to determine is this from ridge detailed skin? Is there -- is this

from a end joint of a finger? Is this from a palm? Is this from a foot? I then determine if is there is enough information there to compare to a know print. Comparison phase is where I compare the unknown to the known.

The evaluation is where I come to my conclusion of either an identification, meaning this unknown print came from the same individual who left these known prints; an elimination, excuse me, elimination or not identified, meaning someone else left this unknown print. Also, I can come to no value, which means there's just not enough there to compare to a known standard. Also, I can use an inconclusive result, which means I'm unable to come to a conclusion for a specific reason.

The V then is the verification of my work by another examiner, where they do their own analysis, comparison, and evaluation.

Q. Thank you. In the case at hand, you were provided with a number of items to make comparisons to known prints. Is that correct?

A. That is correct.

Q. All right, and overall in your comparisons, were there some identifications made on some items in this case?

A. Yes, there were.
Q. And for other items, was there no identification made?
A. Yes, there were.
Q. Okay. All right, let's talk about -- did you generate a report as a result of your work in this case?
A. I did.
Q. Okay. If you wouldn't mind, do you have it in front of you?
A. I do.
Q. I'm going to draw your attention first to your item number 104. That is listed as a multitool.
A. Okay.
Q. What did you learn in your comparison of the multitool?
A. So that item, I chemically processed for fingerprints and the result was no value, meaning I could tell that the item had been touched, but the overall ridge detail from the skin was either not of comparison quality or smudged or for some reason not enough to compare or not of quality to compare with a known.
Q. So, let me make sure I understand that correctly. You didn't actually take that print and compare it to Nathaniel Rowland or Samantha Josephson or anyone else

because the print itself on the item was not sufficient for doing so. Is that correct?

A. That is correct.

Q. Okay. Next let's go to your items 27 and 28. I believe -- if you could tell us what items 27 and 28 are referring to?

A. Item 27 is an empty 16 fluid ounces Bud Light aluminum bottle; item 28 is an empty 12 fluid ounce Bud Light can. Both of these items were processed for fingerprints, and for both of these items the result was no fingerprint evidence was observed, which means there are, there are not even smudges present on the item. It was either too covered in dirt, had been washed, or the prints were just were not left in the first place. There was no ridge detail present on the item at all.

Q. Next I'm going to go to items 32 through 35, which if you could tell the court about each one of those? Let's start with item 32. Is that the L.A.'s Totally Awesome Cleaner bottle?

A. That is correct.

Q. All right.

A. That item was chemically processed, and the result was no value.

Q. Okay, and item 33, what was that?

A. The container of Clorox Bleach germicidal wipes.

The result for that was also no value.
Q. 34?
A. 34 is the Dollar General Home Window Cleaner spray bottle, again chemically processed, and the result was no value.
Q. All right, and then lastly number 35.
A. The Top Job bleach bottle, processed for prints, and the result was no fingerprint evidence observed, meaning no portion of a print at all.
Q. Okay. Thank you. Number 36, item 36, your item 36?
A. That was a set of wall hair clippers processed for fingerprints, and the result was no value for comparison.
Q. Okay, and then in regards to items 38 and 39, if you could talk about those together?
A. Item 38 was two blue plastic gloves and item 39 was one blue plastic glove. Both of those were processed and the result for both of those was no value.
Q. And the item 38, blue plastic glove, does your report indicate where that -- those gloves were purported to have come from?
A. Said to be from the front passenger door panel.
Q. And the same question for 39?
A. Item 39 is said to be from around the clean spray

bottle in driver floorboard.

Q. And again, your conclusion regarding those two was what?

A. Both of those were no value.

Q. So, can you explain to the jury -- we're talking about plastic gloves -- some of the reasons why you may have reached -- why there may be a situation where there's no value for comparison on the gloves?

A. If you've worn plastic gloves for any extended period of time, you'll know that your hands will sweat. That sweat can be too much to leave a print. If you have too much moisture on your hand, then that causes the ridge detail to just appear like moisture drops, like if your car's been out in the rain, and that can obscure leaving a perfectly left print.

Also, if you think about putting a glove on and the way you would take it off, you're kind of smearing it across your skin, which could obscure any perfectly laid print.

Q. Turn your attention now to your item 55. What is that and what did you find?

A. That is a latent lift indicated as coming from the rear passenger door, exterior door handle, and it was no value as well.

Q. And item 108?

A. That was a Family Dollar bag containing miscellaneous wipes, paper towels, and clothes. It was chemically processed and the result was no value.

Q. Now as you mentioned earlier, there were some items that you examined that you did make some identifications. Is that right?

A. That is correct.

Q. All right. I'd like to turn your attention to item 113.

MR. GOLDBERG: Your Honor, may the witness step down?

THE COURT: Yes.

BY MR. GOLDBERG:

Q. Going to show you what's been marked as State's 340 for ID. If you could just look at it to yourself first and describe what that is.

A. This is the fingerprint chart I have prepared.

Q. In regards to item 113?

A. It's actually 113.1.1 with item 87.

Q. Okay, and this chart was created in the ordinary course of business?

A. Yes, that's correct.

Q. Thank you.

MR. GOLDBERG: Your Honor, at this time we'd offer State's 340 into evidence.

MS. PINNOCK: No objection, Your Honor.

THE COURT: It's admitted.

(CHART OF FINGERPRINT COMPARISONS MOVED INTO EVIDENCE AS STATE'S EXHIBIT NUMBER 340.)

BY MR. GOLDBERG:

Q. All right, now I'm going to ask you to trade places with me, if you don't mind, so that the court reporter can hear you. Do you recall -- and I'm sorry. I made you abandon your report. Do you recall what item 113 is from?

A. Item 113 is a crime scene image that is of the rear interior window from the driver's side of the vehicle.

Q. And rear interior window of the driver's side of the vehicle, and that was an image of that?

A. That is correct.

Q. All right, and the other side?

A. This is from my item 87, which were the postmortem inked footprints said to be from Samantha Josephson.

Q. All right, and so again just by way of review, when you say known regarding Samantha Josephson's print, that is because?

A. It was taken on purpose from a known individual in a controlled environment.

Q. All right, and then unknown in regards to 113 from the window?

A. That was a latent, otherwise known as unknown, from the scene because we don't know who left that print.

Q. All right. Now, as you examined these two or compared these to one another, what was your analysis?

A. So, this, this kind of describes what I was explaining before where we look at the overall. It's easier to see on this side. We look at the overall flow of the ridges, which on this image are the black lines. We look for agreement between the overall flow between the unknown and known prints. We then look within the flow at what the ridges are doing. We're looking for the ridge endings, ridge bifurcations, and any dots that may be present.

I first look for them in the unknown print. I'll locate kind of a focal point or a cluster of ridge characteristics, and then I look for it in what should be the same area on the known print. And so that's what the letters with the red lines are pointing at, are different characteristics that I found within the print and within relation to each other that are in agreement between both the unknown and the known.

Q. All right, and what conclusion did you reach regarding this particular comparison of the print from -- the latent print from the window print inside the vehicle to the known print of Ms. Josephson?

A. It was identified.
Q. Meaning what?
A. Meaning that the inked -- the person who left the inked impression also left the unknown impression.
Q. Thank you. You may have a seat. You indicated that was your item 113.1.1?
A. That is correct.
Q. Can you, can you describe kind of generally why there would be various sub-numbers of item numbers like that?
A. So, item 113 is a DVD of crime scene images. So, I had subitem, which is 113.1, the specific image on that entire CD or DVD of images. So 113.1 is the actual file or image 979 on the CD, and within that image I had to then further subitem.1.1 the specific impression that I'm referring to when doing my comparison.
Q. All right, and so did you actually for 113.1, did you actually make comparisons for, I believe, four different parts? Is that the right word for that?
A. Four different impressions represented on that same image. So, item 113.1 is image 979. I then have items 113.1.1 through 1 point -- 113.1.4, all of those referring to different impressions within that same image.
Q. And what were your conclusions regarding each of

those impressions?
A. All four of those were identified to the footprints bearing the name Samantha Josephson.
Q. Can you tell what part of the foot, what print that came from? Say part of the foot. The toes, anything of that nature?
A. Item 113.1.1, 113.1.2, 1.1 -- or I'm -- excuse me, 113.1.3, and 113.1.4 all came from the toes of her right foot.
Q. Okay, and then moving to 113.2, what is that? What is the latent impression from 113.2.1?
A. That is also a crime scene image of the rear driver's side door window interior.
Q. And what was your conclusion regarding that comparison?
A. That image had one impression subitem from it. So, 113.2.1 was also identified to the footprints of Samantha Josephson.
Q. Which part of the foot made that impression?
A. That impression came from the heel area of her left foot.
Q. So, the previous item you said was the right foot, but this one's from the left foot. Is that right?
A. That is correct.
Q. And then lastly in regards to this particular set

of impressions, 113.3.
A. That is an additional crime scene image and had one impression subitemed from it. So, 113.3.1 was also identified to the footprints of Samantha Josephson.
Q. Which part of her foot?
A. This was the right foot planter area, which is essentially under your smaller toes.
Q. All right, I'd like to turn your attention to your item 37.
A. Okay.
Q. And just for reference sake, I believe this is State's Number 26 that's already in evidence as the Yankee Candle. That's your item 37, correct?
A. Yes, it is.
Q. Okay. Thank you. What comparisons did you make regarding this item?
A. It was processed for prints. It -- I then subitemed three impressions from that bag. So, 37.3 was compared but not identified to any of the names involved in this case. Item 37.4 and 37.5 were both compared and identified to the footprints of Samantha Josephson.
Q. Did you notate which part of her foot?
A. 37.4 is from her right foot, toe number one. 37.5 is also from her right foot, from the ball area below the big toe.

Q. All right. Thank you. Turning your attention to items 128 and 131, and start with item 128.
A. Okay.
Q. What is that item?
A. That is a black trash bag containing a paper towel roll, one Dollar General bag containing a gray bath towel, and one IGA bag containing a bedsheet and miscellaneous wipes.
Q. What identifications did you do in regards to that item?
A. An impression was developed on the exterior of the trash bag that was identified to prints bearing the name Maria Howard. And two more prints also on the exterior of the black trash bag were also identified to the known prints bearing the name Maria Howard.
Q. Okay. Next, your item 22, and I'm going to show you what's previously been admitted into evidence as State's Exhibit 56, and can you describe, according to your report, what this is?
A. One torn envelope with writing. Yes, that is it.
Q. Okay. All right, and did you conduct a series of comparisons regarding the envelope?
A. Yes, I did.
Q. All right. Let's talk. There were multiple comparisons, correct?

A. There were two.
Q. Okay. Let's start with item 22.4.
A. The impression was developed and identified with known fingerprints bearing the name Xavier Marquise McFadden.
Q. Okay, and then let's talk about item 22.3. Still talking about the envelope, correct?
A. That is correct. The fingerprint developed as item 22.3 was identified with the known standards bearing the name Nathaniel David Rowland.
Q. All right. Now, my question goes back to something we discussed a little bit earlier. Can you talk again about timeframes as it relates to how fingerprints may be on an item, how long a fingerprint can stay on an item, things of that nature?
A. Things such as knowing when an item was cleaned, knowing when an item was wiped down may help, but generally it -- we are unable to determine when a print was left on an item.
Q. So, is it fair to say then -- and if I handed my paper to you and you took it back to your office and set it down on the desk, and some years later you found it and it was compared for prints of some sort, then there would be no way to tell when -- if you found a comparison to my print -- it had been left on there?

A. That is correct.
Q. And I have one more item to ask you about, item number 40. What item is that?
A. That is a roll of pink duct tape.
Q. Show you State's 29 that's already in evidence. Is that the duct tape?
A. Yes, it is.
Q. Okay, and what was your analysis of the duct tape?
A. That was chemically processed and three impressions were the subitemed. All of them were identified to the known fingerprints bearing the name Nathaniel David Rowland. Those prints are on the interior cardboard roll.
Q. Not on the tape on the outside but rather on the inside?
A. Correct.
MR. GOLDBERG: Agent Mears, thank you. Those are all my questions at this time.
WITNESS: Thank you.
THE COURT: By the defense?
MS. PINNOCK: May it please the court, Your Honor?
THE COURT: Yes.
CROSS-EXAMINATION BY MS. PINNOCK:
Q. Good morning.
A. Hi.

Q. So, when you get involved with doing your part of the, you know, forensic testing, you're not going out and getting the information. The information is -- the items that they want tested are sent to you?

A. That is correct.

Q. And when they arrive to your department, they are usually stored in some sort of evidence bag?

A. That is correct.

Q. And that's because the crime scene folks have gone out there, collected it, they've logged it into the evidence room, and the request was put on -- put in for print comparisons?

A. Yes, that is correct.

Q. And when you get the, when you get the bag, the only information that you know about that item is what's on the bag, right?

A. They will generally write s brief description where the item is said to be from. They will notate the lab number, item number, and their initials on the bag. And then within our computer system, they will indicate what analysis or what testing they want on that item.

Q. Okay. So, when you get that turned over, you don't know and you don't have any way of determining what is important and what might not be important, right?

A. That's correct.

Q. You just -- the request is made. You get the item. You do your comparison.

A. Correct.

Q. And when you complete your comparison, you upload it to y'all's internal system, E-System I think somebody called it?

A. As far as my worksheets and my ---

Q. Yes.

A. --- report? That is correct.

Q. And after you upload it, it's not up -- it's not your responsibility to make sure that investigators get it and review it. You do your part, you upload it, and then you move on to the next case you have to work on, right?

A. That is correct.

Q. And you've just testified -- well, when Mr. Goldberg started asking you questions, you said there were some other items that you were able to get prints off of, but you also noted that there were more potential prints, just not of the caliber for testing or comparison, right?

A. Right. Some of the items that I processed were no value.

Q. And you actually noticed more ridge details on item -- on specific items like item 22. You could tell that

it had been touched more, but you were not able to do a comparison with those other areas?

A. That is correct.

Q. Okay, and you testified that you can't -- clearly you can't date a fingerprint?

A. Right.

Q. So, if I got a piece of mail that had my car registration in it and I picked up the envelope, opened the envelope, took my car registration out, and put that envelope somewhere, theoretically my prints would stay on that envelope?

A. Theoretically, yes.

Q. If somebody else touched the envelope and, you know, opened it, moved it, did anything with it, and put it down and nobody touched it again, that person's print would be there?

A. There is a chance, yes.

Q. And you don't know how many different prints are on item 22, right?

A. No, I do not.

Q. You were only able to get two?

A. The ---

Q. To compared two?

A. To compare two, yes. The rest of the overall envelope had various touches across the front and the

back.
Q. And the -- you testified that item 22.3, you identified that as being from Mr. Rowland?
A. That is correct.
Q. And that was found on the -- you lifted that one from the front part of the envelope?
A. The front side of the envelope, yes.
Q. And item 22.4, you identified that as that of Xavier McFadden?
A. Correct.
Q. And that was located on the back part of the envelope?
A. That is correct.
Q. And again, there's all different touches throughout the envelope, but those are the two you were able to lift?
A. Process and photograph. These weren't exactly physical latent lifts, and the rest of the impressions that were noted on the item were determined to be no value. So, they were not then subitemed for comparison.
Q. Now in item 128.5, the black trash bag.
A. Yes.
Q. Do you recall, other than saying a black trash bag, do you recall where that bag was located?
A. The packing slip from our computer system said that

it was from trash can with a specific ID number located in Maria Howard's backyard.

Q. Okay, but outside of that is the only information you had about this item?

A. That's correct.

Q. And it was Maria Howard's fingerprints that you were able to identify on item 128.5?

A. Yes, that is correct.

Q. On 128.6?

A. Yes.

Q. On 128.9?

A. Yes.

Q. And you also identified her, her print on item 131.5. What is that item?

A. Item 131 is a Family Dollar bag containing clothing. Item 131.5 is a impression I developed on the bag. That was identified to Maria Howard.

Q. Yes, ma'am, and does the submission that you got identify where that bag was located?

A. Item 131 is said to be from the trash can, and I believe it is the same ID number of the trash can.

Q. And I'm going to hand you what's already in evidence as State's Exhibit 6. That's the fingerprint card for Nathaniel Rowland.

A. Yes.

Q. Does it have his, I guess, his stats at the top of it? Height, weight?

A. Yes, it does.

Q. Can you please tell us what that says?

A. Sex is male, race is black, height is 5-8, weight is 160, eyes are brown, hair is black.

Q. Thank you, ma'am, and your testing has nothing to do with DNA, right? That a different department?

A. I -- in my processing, I created some swabs for DNA, but then they were transferred to the department, and I did no testing on them.

Q. Okay.

MS. PINNOCK: Beg the court's indulgence.

(A PAUSE.)

MS. PINNOCK: Thank you, ma'am.

Your Honor, I have no further questions.

THE COURT: Any redirect?

MR. GOLDBERG: Very briefly, Judge.

REDIRECT EXAMINATION BY MR. GOLDBERG:

Q. Agent Mears, if someone is wearing gloves, what impact does that have on their ability to leave a latent print on an item?

A. You will not leave a print on an item if you have a glove blocking the moisture on the skin from the surface you are touching.

MR. GOLDBERG: Thank you.

THE COURT: Anything further?

RECROSS-EXAMINATION BY MS. PINNOCK:

Q. Agent Mears, if somebody doesn't touch an item, will they leave a print?

A. No, they will not.

MS. PINNOCK: Thank you.

THE COURT: You may step down. Thank you.

(THE WITNESS EXITS THE STAND.)

THE COURT: You may call your next witness.

MS. SAMPSON: Thank you, Your Honor. The state calls Verona Herrera.

VERONA HERRERA, BEING DULY SWORN, TESTIFIES AS FOLLOWS:

CLERK: Please have a seat. State your full name for the record.

WITNESS: My name is Verona Herrera.

VOIR DIRE EXAMINATION BY MS. SAMPSON:

Q. Good afternoon, Ms. Herrera. Where are you currently employed?

A. DHEC, the Department of Health and Environmental Control for South Carolina.

Q. And how long have you worked there?

A. Approximately a year and a half.

Q. Prior to that, where did you work?

A. The South Carolina Law Enforcement Division.
Q. And how long did you work there?
A. Approximately eleven and a half years.
Q. And while at SLED, what did you do?
A. Evidence processing technician and a forensics serologist.
Q. What is a forensics serologist?
A. A forensics serologist takes evidence from a crime scene and tries to identify the body fluid on the evidence. Usually it's a body fluid in question: blood, semen, saliva.
Q. And how long did you do this?
A. It was about six years that I did serology. It's, it's a little bit unique because evidence processing became a part of serology. So, evidence processing is taking those items of evidence, looking for bloodstains or areas that could be semen or saliva and doing quick tests, or collecting possible skin cells from areas on clothing or guns or car parts, and then the serology was additional testing to try to identify those body fluids if they were present.

So, I started out as evidence processing. When the serology department -- duties were added to that, then I became a serologist.
Q. And did you get any training in performing and

conducting serology testing?
A. Through SLED, there is an in-house training program, yes, for both the evidence processing and serology.
Q. Can you tell the jury a little bit about your training?
A. I worked under a court-qualified analyst, watching them process evidence; then I started processing evidence under their supervision. I had to pass a written test, an oral test, a mock court test, and practice evidence to make sure that I could perform the duties that I was going to be performing.
Q. And have you ever been qualified as an expert in the field of serology?
A. Yes, ma'am.
MS. SAMPSON: At this time, Your Honor, I'd ask to have Ms. Herrera qualified as the expert in the field of serology.
THE COURT: Any objection?
MS. PINNOCK: Your Honor, may we approach?
THE COURT: Yes.
(OFF-THE-RECORD BENCH CONFERENCE.)
MS. PINNOCK: No objection, Your Honor.
THE COURT: She is so qualified.
MS. SAMPSON: Thank you.

DIRECT EXAMINATION BY MS. SAMPSON:

Q. So, you were explaining to the jury about serology. Specifically, what are you testing for when you're doing the serology test?

A. It depends on the, the body fluid in question. If it is blood, there is a presumptive test for blood. It's a quick color change test. The area in question would be swabbed and then chemicals applied to that swab. It would change to a bright pink color if there is a possibility blood is there. We can also go on and identify blood, not human blood, but we can say that the substance is blood by doing a further testing on that swab.

Semen is similar. There's a quick color change test from a -- that you would swab the area. Add the chemical. It would turn purple within a minute to indicate there's a possibility that could be semen, and it can be taken for further testing for the P30, which is the A component of the lipo portion of semen. And we also looked at spermata, for sperm cells or spermatozoa, under the microscope.

Saliva testing is presumptive testing only from swabs or cuttings from the material if you think it -- say a mask. If you think there's saliva on the mask, we could cut an area of that and test it.

Also hair can be evaluated. If there's root material on the hair, that can be forwarded for further testing as well.

Q. I want to move you to this case. How did you become involved in the murder of Samantha Josephson?

A. I was assigned the case when it was submitted to the laboratory.

Q. And so how does something get submitted to the laboratory?

A. The agency or our crime -- or SLED's crime scene personnel would bring the evidence to the laboratory. It gets entered into the, to the computer system, tracking system. It's given a unique lab number, and each item that's submitted is given a unique item number within that lab number.

Q. And so when you say -- are you getting the items as we see them, or do you get swabs or cuttings, or what do you receive?

A. Usually all of the above. I could receive swabs from other departments; it could be swabs of the actual crime scene. It could be clothing, linens, car parts, guns, just anything that's taken from the crime scene could come through the Evidence Processing and Serology Department. Then those are narrowed down to swabs or cuttings so that they are much smaller to handle. Then

those would be -- anything that was positive would be forwarded on to -- for further analysis.

Q. So, I want -- do you have your report in front of you?

A. I do, both of them, yes, ma'am.

Q. So, I want to refer you to what you have listed as item 38.1 just to give us an idea.

A. Yes, ma'am.

Q. What is that particular item?

A. The swabs taken from the cuff area and in between the fingers of item 38.

Q. And do you know what item 38 is?

A. I do not.

Q. Okay, and that's fine. What I want to ask you about is this: Item forwarded to DNA section. What does that mean?

A. In this case, I was compiling the evidence so that the DNA analyst could get all of it at one time. This item did not need to be tested for a body fluid, so it went straight to the DNA analyst. I never opened that item.

Q. So, if we see on here where it says item forwarded, you just send it straight on. Is that fair to say?

A. No, because I also put that designation on anything that I test and then send forward.

Q. Okay. So, I'm going to move to what you have listed as item 104.1.

A. Yes, ma'am.

Q. What is that?

A. Camo-colored multitool from white plastic Family Dollar bag, bag number two.

Q. And what is the result of that test?

A. There was a swab from the serrated blade of the camo-colored multitool, which is 104.1. Presumptive testing for blood positive, and that item was forwarded to the DNA section.

Q. So, what does it mean if it comes back as presumptive testing for positive?

A. So like I said, the quick color change test where it would turn bright pink if there's a possibility blood is there is a very sensitive test. There can be very huge amounts of blood, there can be very minute amounts of blood there and it will change color, but it's also not specific. Other chemicals in the environments or other items can cause it to turn positive. So, that's considered a presumptive test for blood. There's a possibility that blood is there, but it needs further testing.

Q. Okay, and I want to move on to item 106.1. What was that?

A. 106.1 is the swab from the finger of the black right-hand glove from the white basket from the closet left of the bed in Maria Howard's bedroom, and that is 7525 Mountainbrook Drive, unit C.

Q. And what was the result of that testing?

A. The presumptive test for blood, blood was positive, and the item was forwarded to the DNA section.

Q. And what about 107.1?

A. 107.1 is swab of cuff of black left-hand glove from white plastic bag, Family Dollar bag number two.

Q. What was the result of that test?

A. The presumptive test for blood was positive, and the item was forwarded to the DNA section.

Q. Okay, and how about 108.3.2?

A. 108.3.2 is cutting from one wad of possible paper towels from miscellaneous contents removed from bag from item 108.

Q. And what was the results of that test?

A. Presumptive testing for blood was positive, and the item was forwarded to the DNA section.

Q. And can you tell the jury. What happens when the -- do you know what happens when it's forwarded to the DNA section?

A. They take it through the process to develop the DNA profile, which they compare to a known standard.

Q. So, you don't do that. That's someone else's job, fair to say?
A. Correct. Yes.
Q. So, item 108 -- excuse me, 108.3.4, is that still the -- we're still talking about the glove?
A. Yes. That is a swab from the entire exterior as it was submitted of three gloves from miscellaneous contents removed from bag from item 108.
Q. And on all of those items, what was the result?
A. Presumptive testing for blood was positive, and the items were forwards to the DNA section.
Q. And for item 125.1?
A. Swab from the sole of the right shoe, a pair of pink Adidas, size 9K shoes from closet underneath the stairs from Maria Howard's residence was -- presumptive testing for blood was positive, and then the item was forwarded to the DNA section.
Q. All right, and 127, what was the result of that?
A. Gray pillowcase from pillow from right side of bed, Interiors by Design, from Maria Howard's bedroom. Presumptive testing for blood was negative.
Q. So, that means it wasn't blood?
A. The presumptive test was negative. I can't say with absolute certainty it was not blood, but it is not likely to be blood.

Q. And is that common or uncommon?
A. It is fairly common, yes, ma'am.
Q. What about 128.1.1?
A. Cutting from the towel from miscellaneous contents removed from bags of item 128. The presumptive test for blood was positive, and the item was forwarded to the DNA section.
Q. 128.1.2?
A. That's a cutting from the pillowcase from the miscellaneous contents removed from, removed from bags of item 128. Presumptive testing for blood was positive, and the item was forwarded to the DNA section.
Q. And I'm going to move on to item 130.1.1. What is that?
A. Cutting from the left side hem area of tan shirt removed from item 130.
Q. And what is item 130?
A. I do not know.
Q. What is 130.1?
A. That is the tan shirt.
Q. Okay. So, this is -- and then 130.1.1 is a cutting from that?
A. That is correct, yes.
Q. Okay, and what was the result of that?
A. Presumptive testing for blood was positive, and it

was forwarded to the DNA section.
Q. And how about 131.1.1.1?
A. 1.1.1, cutting from right cuff of shirt.
Q. Yes. Read me the result of that.
A. Presumptive test for blood was positive, and the item was forwarded to the DNA section.
Q. And how about -- so, here we have 131.1.2. What item is that from?
A. 131.1.2 is the pants that were removed from item 131.
Q. All right, and what was the result of the testing of that cutting?
A. The testing of 131.1.2.1 is the cutting from the right thigh area of the pants removed from item 131. That is presumptive test was positive -- or for blood was positive, and the item was forwarded to the DNA section.
Q. Now I'm going to move to your next report.
A. Okay.
Q. Okay? There you have item 22.1.
A. Yes, ma'am.
Q. You see that? What is that item?
A. That is a swab taken from below address window on item 22.
Q. And what was the result of that?

A. Presumptive testing for blood was positive, and the item was forwarded to the DNA section.
Q. And now I'm going to move to item 45.1. What is -- that is a swab, correct?
A. Correct.
Q. And what did that swab come from?
A. This swab is from the right sleeve near the cuff of a black jacket, Robert Comstock, size XL, from rear passenger seat of Chevy Impala.
Q. What was the result of that test?
A. Presumptive test for blood was positive, and the item was forwarded to the DNA section.
Q. And there are -- was that the only swab or there are several swabs in that particular item?
A. There were two other swabs of that particular item.
Q. And I want to move on to 49.
A. Multicolored shirt from Nathaniel Rowland.
Q. And that one, that's one of those that tested negative, correct?
A. That is correct.
Q. And does that mean that there's no blood anywhere or just on the item that you tested?
A. You mean there's no blood anywhere on the shirt?
Q. Correct.
A. I would've looked the entire shirt inside and out

to see if there was no visual spots that appear to be bloodstains and tested those, and all of those tested negative.

Q. And that would be different from item 50.1, correct?

A. That is correct.

Q. And what was about -- what was item 50?

A. Item 50 is a pair of black socks from Nathaniel Rowland.

Q. And what was the result of that test?

A. The cutting from the heel area of the black socks from Nathaniel Rowland, 50.1, and the presumptive testing for blood was positive, and the item was forwarded to the DNA section.

Q. And what about item 51.1?

A. That is a cutting from the right shoulder area of gray Puma hoodie from Nathaniel Rowland, and presumptive testing for blood was positive, and the item was forwarded to the DNA section.

Q. And how about item 54.1.1?

A. 54.1.1 is a cutting from the -- from bandanna from Nathaniel Rowland, and presumptive testing for blood was positive, and the item was forwarded to the DNA section.

Q. I want to move your attention to the 128.1.3.

A. 128.3, swabs taken from interior of Dollar General

bag from item 128. Presumptive test for blood was positive, and the item was forwarded to the DNA section.

Q. What about 128.4?

A. 128.4 were swabs from the interior of IGA bag from item 128. Presumptive test for blood was positive, and the item was forwarded to the DNA section.

Q. And item 130.3?

A. 130.3 are swabs taken from along open edge of item 130. Presumptive testing for blood was positive, and the item was forwarded to the DNA section.

Q. And what about 130.4?

A. 130.4 is swabs taken from the interior of cardboard roll from item 130. Presumptive testing was positive, and the item was forwarded to the DNA section.

Q. And there was also hair collected on your report, correct?

A. I do believe there was, yes, ma'am.

Q. And is it your job to test the hair, or does that go to somebody else?

A. I evaluate the hair to see if a root is present because SLED's DNA analysis will only work on root material on hair. And if the root material is present, then the hair is forwarded on for further testing. If root material is not present, then it is not sent for the further testing.

MS. SAMPSON: Beg the court's indulgence.

(A PAUSE.)

MS. SAMPSON: No further questions at this time, Your Honor.

THE COURT: By the defense?

MS. PINNOCK: Please the court, Your Honor?

THE COURT: Yes.

MS. PINNOCK: Please the court, Your Honor.

THE COURT: Yes.

CROSS-EXAMINATION BY MS. PINNOCK:

Q. How are you?

A. I'm well, and you?

Q. Good. This is going to be very brief. You said that some of the items that were originally submitted to you, you did not do any sort of presumptive test?

A. There are some, yes, ma'am.

Q. Okay. You went ahead and just forwarded that on to DNA?

A. That is correct.

Q. And you, yourself, don't do any sort of DNA processing or comparisons?

A. I don't do the developing of the DNA profile nor the comparison, no, ma'am.

Q. And I believe Ms. Sampson asked you about one of the swabs you took from a black jacket, but you swabbed

that jacket more than once, right?
A. Yes, ma'am. Do you know the item number for that?
Q. I believe it's 45. Yeah, 45, item 45. I've got it on page 2.
A. Okay. Yes, ma'am. Yes, ma'am, there were three swabs taken from that jacket.
Q. One was near the cuff?
A. 45.1 was the right sleeve near the cuff of the black jacket.
Q. 45.2 is the upper right and lower, lower left area of the black jacket?
A. That is correct.
Q. And then 45.3 was the interior neck area of that black jacket?
A. It's a swab from scraping the interior of the neck area of the black jacket.
Q. What does that mean?
A. That means that we take a piece of -- it's a sterile plastic single-use scraper and scrape areas that potentially touch someone's body as they're wearing the item. Try to determine who was wearing the item. So, the neck area of that jacket was scraped in an attempt to collect skin cells of the person that may have been wearing it.
MS. PINNOCK: Begging the court's indulgence.

(A PAUSE.)

MS. PINNOCK: Thank you, ma'am. I have no further questions.

THE COURT: Any redirect?

MS. SAMPSON: No, sir.

THE COURT: Thank you. You may step down.

(THE WITNESS EXITS THE STAND.)

THE COURT: Do you have a ten minute witness?

MR. GOLDBERG: No, sir.

THE COURT: All right, ladies and gentlemen, we will break for lunch, and we will come back at 2:15, 2:15. Please do not discuss the case.

(THE JURY EXITS AT 12:47 P.M.)

THE COURT: So, with regard to the next witness, will there be matters of law?

MR. GOLDBERG: Judge, there would be a brief serology witness. After that, there would be a matter of law pertaining to the next witness, which would be the state's DNA analyst, Agent DeWane, in which there is an outstanding motion by the defense that Your Honor heard part of argument on last Friday.

THE COURT: So, we'll come back at 2 o'clock and take up the ---

MR. GOLDBERG: Yes, sir.

THE COURT: --- DNA argument.

MR. GOLDBERG: Yes, sir. Thank you, Your Honor.

MS. PINNOCK: Thank you.

THE COURT: All right. 2 o'clock.

(OFF THE RECORD.)

THE COURT: On the DNA issue, Ms. Pinnock.

MS. PINNOCK: Thank you, Your Honor. If it pleases the court? Your Honor, at this time we would object to any testimony being offered to the jury from the DNA analyst from SLED regarding items 108.3.6, which is the interior of glove labeled C; 108.3.2, cutting from paper towels; 104.2, swabs from the inner edges of multitool; 131.1.2.1, cutting from the left leg of a pair of pants; and item -- that's the wrong number, 130.2, Your Honor which are swabs from item 30, which is a Family Dollar bag that was found at the Mountainbrook address. Your Honor, we object to these items being testified to under Rule 401, 403, and 702.

I will address two of the items together, items 108.3.6 and 130.2. Both of these items, Your Honor, are listed in the report provided to us through discovery as having uninformative statistical results and having no conclusion met as to whether or not Mr. Rowland was a contributor to the sample.

Your Honor, under 401 this result is completely irrelevant. Relevancy is a tendency of proving a

material fact more likely or not, and having the analyst testify that they've reached no conclusion is not assisting the trier of fact of determining anything. Your Honor, I think it fails the relevancy test of 401.

If Your Honor does find that it is relevant, I believe that it should be barred, barred under 403. The dangers of having an analyst testify about these two items in the manner the testimony would be offered would be extremely misleading and confusing to the jury. The only testimony that could be offered to explain this type of result would be that the -- no conclusion can be reached. He could contribute. He couldn't contribute. You know, I cannot exclude him from this sample. I do believe that improperly suggests that his DNA is there when that's not, that's not what the data provides us. The data provides us no conclusion, no opinion. It's just neutral.

Your Honor, we would object to both of, both of those under 401, 403, and I left out 702 -- I apologize -- for those two items. An expert witness is able to testify and offer opinions, but it must assist a trier of fact in determining a material element or material issue. There is no conclusion that can be made as far as these two items that her testimony would be, you know, helpful to the jury. It's -- there is no

conclusion. So, I do believe that it should be excluded from testimony for those two items based on those issues.

And, Your Honor, the last three, it's 104.2, 108.2, and 131.2 -- sorry, 131.1.2.1. Your Honor, I object to those for a different reason. I believe under 403 the balancing test, whether or not, you know, the probative value is substantially outweighed by the dangers of unfair prejudice or confusion of the -- the confusion of the issues is, you know, what the focus is.

All of those items, Your Honor, item 104.2 is a mixture of three individuals that are identified in that profile. and the report indicates that there -- that Mr. Rowland -- it's 49 times more likely that Mr. Rowland is contributor to that mixture than if it was three unidentified individuals. For item 108.3.3, it reads that it's approximately 3 times more likely that Mr. Rowland is a contributor to those two -- to that mixture. And then for 131.1.2.1, it reads that it's approximately 50 times -- 55 times more likely that he contributed to this mixture of the three.

The dangers of that, Your Honor, the verbal scale and all the information provided to us through discovery indicates that those numbers fall within the weak support for any sort of DNA conclusion. We're dealing

with hundreds of things that were submitted for testing, multiple propositions and hypotheses created for each and every item. We're dealing with, I believe, at least seven -- I could be wrong -- but seven different known profiles.

And the testimony from the analyst we're dealing with, you know, let's say, for example, Samantha Josephson's profile in some of these mixtures. We have results that are 2.6, you know, quintillion times more likely that she's involved, you know, included in some of these mixtures. To then turn around and have testimony suggesting that it's 49 times more likely that Mr. Rowland is included in these mixtures is misleading as far as the strength, you know, of his presence in that profile.

So, I would argue that the testimony of both those three specific items should also be barred from making it to the jury. I do not believe that the minimal probative value of having a weak support on all of -- all three of those items as far as Mr. Rowland is concerned is substantially outweighed by the dangers of the prejudicial effect.

And, Your Honor, I would -- I believe I sent Your Honor a copy of the written motion, the report that I referred to during Friday's testimony, the 67 page

report from December 5, 2019. And I don't recall if I provided Your Honor with a copy of *State v. Phillips*.

THE COURT: You handed it up last Friday.

MS. PINNOCK: Yes, sir. Well, if I could just make those three things part of the record.

THE COURT: The law is part of every record automatically.

MS. PINNOCK: Or, I'm sorry, a court's exhibit, Your Honor, and I also -- I, I failed to make a court exhibit's the motion on the writing testimony the other day, so I'd just like to make that a court's exhibit as well.

Your Honor, we would just respectfully request that testimony from those five specific items be barred from being presented to the jury.

THE COURT: All right. Says the state?

MR. GOLDBERG: Thank you, Your Honor. May it please the court?

THE COURT: Yes, sir.

MR. GOLDBERG: As Your Honor is aware, the factors to consider here stem from Rule 702 regarding the admission of scientific evidence, and as counsel has already alluded to, the first step is to determine if the evidence at issue will assist the trier of fact in any way. Specifically, whether it will assist in

helping the trier of fact to understand the evidence or to determine a fact at issue.

Judge, we've got literally over 100 items of evidence that are subjected to DNA testing in this case, many of which were determined to be mixtures of multiple contributors. Agent DeWane testified about her verbal scale that she uses. One of the conclusions she already testified to is that it suggests there's very strong support for the victim's inclusion in some of these DNA profiles. And then, of course, as counsel has alluded to, there are those three items in particular where there's a weak support for Mr. Rowland's inclusion and then the two items where no conclusion can be made. So, the question is how does this, how does this help the jury understand the evidence in the case, which is one of the first things that 702 talks about.

What this does, by allowing Agent DeWane to talk about not only inclusion, exclusion, and no conclusion, is it allows the jury to get a full understanding of what this testing is, the type of testing it is, and the possible conclusions, just like Agent Mears testified to regarding the fingerprints, about how there were four or five different things that she could find. Agent DeWane has these three different things that she can say. This will allow the jury to learn and understand what it

means to have strong support, weak support and then based on, as the agent said, uninformative statistics, a lack of conclusion about particular items. So, the jury will be afforded an opportunity to, to fully understand the science and what's being presented.

Additionally, if you're talking about determining a facts at issue, one of the issue -- a big issue in the case, as put forth by the defense in opening, is that there's no DNA linking -- or no evidence on the defendant -- or on the victim of the defendant. They have made DNA a large issue in this case.

Item 104, which is one of the items at issue here, is the alleged murder weapon. It's found with other trash, other things, other evidence in the trash at the girlfriend's residence. It would allow them to understand the nature of the evidence that was collected from the trash at Maria Howard's house, about whether Mr. Rowland had his DNA profile on any of these items, or whether anybody has any DNA profile on these Items, whether its him, and of the other known standards, or any unidentified individuals.

And so it helps, it helps the jury understand the evidence. It helps them determine the facts at issue about whose DNA is on these items. I.E., for them to decide later who was in possession of these items, these

things in the trash: the Family Dollar bag, the knife, the pants, the glove, the things that are referenced here.

And so you've heard from Agent DeWane. She clearly was qualified as an expert, which is part 2 or 702, based on her extensive training and experience as she testified to. She testified pursuant to *State v. Counsel*.

As Your Honor is aware, the factors that go into making the underlying science reliable here in terms of publications and peer reviews regarding the science, prior application of the methods, these methods have been used throughout the United States, internationally in multiple labs, including the FBI, and the United States Army, and the consistency of the methods used, as well as quality control procedures, to include proficiency tests -- excuse me, validations for the procedures and protocols that are followed.

When you shift gears, Judge, lastly in the analysis, 403 analysis and the defense's argument that any probative evidence that comes from -- any probative value that comes from this evidence is substantially outweighed by the danger of unfair prejudice, it's the state's position that this DNA evidence is probative. It shows the jury who other possible contributors of the

mixture could be. And I'm specifically talking about the weak support for individuals, the three weak support items that she referenced. It shows the jury who contributors could have been. It can be probative of whether the defendant is included, excluded, or in regards to the two items where there's no conclusion, whether there's no conclusion to be made whatsoever. And counsel also references how once evidence is admitted, then it's up to the jury to decide what weight to give to it. So, we would argue that this information goes to the weight of the evidence, not the admissibility there.

The state's position is this evidence is not substantially outweighed by the danger of unfair prejudice. Dr. Rudin, the defense's own expert, testified that the methods here utilizing likelihood ratios that are attached by Agent DeWane to these verbal wording scales, she testified the likelihood ratios are actually useful when it comes to interpreting complex mixtures.

And lastly, Judge, the state would argue that this evidence would not be confusing or misleading to the jury. Counsel references *State v. Phillips*. The *Phillips* case was a completely different situation. That was a case, as Your Honor is aware as I'm sure

you've read it, where both the prosecutor and the DNA analyst completely restated the meaning of the evidence, not only to the jury but to the court, and that was the framework within which that opinion was written, about how DNA evidence can be misleading.

The court has already heard testimony from Agent DeWane in the pretrial hearing about exactly the manner in which she would report these findings. And specifically as it pertains to weak support, she would state exactly that, no more, no less.

And lastly as it pertains to the ones where no conclusions could be reached, she would testify that that is exactly what that means: she cannot make a conclusion. She can't say that they're included or excluded. It is the jury's job to take that information and decide what value, if any, that has. It is not misleading because she's not taking it, saying, oh, he could be there. He might not be. As a result, Judge, we would respectfully ask that you deny the motion. Thank you.

THE COURT: Ms. Pinnock.

MS. PINNOCK: Sorry, Judge. I got caught over here.

Your Honor, I would just point out that the testimony in *State v. Phillips* was exactly what Mr.

Goldberg just stated. The analyst testified that Mr. Phillips could not be included or excluded from that DNA sample. The issue here is not the fact that, you know, the facts line up and this situation is just like the next one and just like the next one. It's the considerations made by the court when they're issuing these opinions and what their concerns are as far as DNA evidence and testimony getting to a jury.

I mean, everybody, I think, would, would admit and accept that DNA evidence is complicated. It takes a long time to get through; it takes even longer to understand it once you get through it. So, presenting testimony that's very similar to what we -- what, you know, what happened in *Phillips* where we know in that situation it was a confusing, you know, confusing situation in that case, especially for the two items that have uninformative -- you know, cannot reach a conclusion. There's just, there's no reason for it.

It is unnecessary. It will do nothing but suggest to the jury Mr. Rowland's profile is potentially somewhere. That there's no evidence saying it is. I cannot see what other purpose the state would have other than, other than to suggest that to the jury, which would be improper. The, the science does not offer an opinion.

My issue -- and I've never made any comment about Agent DeWane's qualifications under 702. That's not the objection. The objection is based on what an expert witness offers to a jury: testimony that will assist them in understanding the evidence. There is no understanding coming from a neutral result. No conclusions are being offered. She cannot help them understand something that doesn't exist. So, specifically for those two, Your Honor, that is my response to those.

But I do believe, again, that all five of -- all five items, the testimony itself as far as Mr. Rowland, should be excluded. And the cite for *State v. Phillips*, just for the record, is 430 SE 319. It's a 2020 case from the South Carolina Supreme Court.

THE COURT: All right, anything further from the state?

MR. GOLDBERG: No, Your Honor.

THE COURT: Well, we've had a lot of forensic testimony during this trial, a number of expert witnesses: trace, serology, fingerprints, maybe some others. And many of those witnesses testified based on where there was adequate amount of materials to test. Some there was insufficient materials, or just most recently the serology could not determine based on the

lack of a sufficient amount for testing. And all of -- that's been pretty consistent with almost every witness here with all of the hundreds of exhibits that are in evidence. Any number of them, there were no definitive results given and even with the telephone tracing location, they couldn't pinpoint exactly the location but to a reasonable degree of certainty the areas where the phone, phone towers picked up the signals.

It appears that the argument of the defense trying to suppress the DNA evidence is pretty much locked on the precedent of *State v. Phillips*. And one thing is true, and that is that DNA is well accepted now and is well recognized as strong evidence. People trace their ancestry through DNA, and if improperly presented can be misleading to the jury. And that's exactly what happened in *State v. Phillips*.

Well, first of all, the fingers were pointed at the judge because the judge allowed the parties to represent what the evidence would show, to not hear from the experts but to have the lawyers tell him what the evidence would show. And I have made a point during this trial and during pretrials to have the parties clearly understand that I rule based on evidence and not based on the representations of counsel. So, the first fatal flaw in there was where no hearing was conducted,

no testimony received for the judge to perform his gatekeeping function of receiving evidence and analyzing it in the context of the -- of Rule 702 and 703. That was the first fatal flaw. And not only could the judge not establish a record of the basis for his decision, but nothing for the appellate courts to review because there was no evidence received. That was compounded by the fact that when the expert testified, DNA analyst testified, she misrepresented the findings, her own findings, and misstated things to the jury. In effect, mislead the jury. Further compounded, and in an astonishing way, when the solicitor then declared the existence of DNA on evidence that was to the contrary. The solicitor drew a conclusion that the witness did not draw. So, court had another basis to be concerned about the court not performing its function, the DNA analyst misrepresenting findings contained in her own report, and the solicitor misleading and misstating things to the jury.

We don't have that in this case. I find that the test of whether this specialized knowledge will assist the trier of fact, the jury, in understanding evidence is well established and that DNA is well recognized as being something that specialized knowledge is required in, and that informative information can be derived

from. That for the court to exclude a portion of the DNA testimony simply because the evidence is weak and to make no reference to the fact that this item was tested, that may well mislead the jury.

We've had testimony that the defendant was clean -- cleaning the alleged murder weapon, seeking to erase whatever, whatever evidentiary value was there. The defendant used gloves. I forget which expert it was testifying as to the impact of chlorine bleach on items to changing, changing its nature. It could well mislead the jury for the jury to not hear this complete testimony concerning what was analyzed and what was found.

As I stated with regard to the fingerprint expert, it doesn't -- witnesses, they don't have to testify they are 100 percent certain. They give their opinion to a reasonable degree of medical certainty within their field of specialty without using magic words, and that pertains to all aspects of the testimony. There is no basis to exclude the DNA testimony in this case. It all goes to the weight and not the admissibility. There is nothing misleading based on a witness stating that there was uninformative statistical results, or the evidence was weak as to one item but strong as to the other item. It's all essential for the jury to have the tools they

need to deliberate and to decide this case.

I will be monitoring closely that there will be no misleading or false statements by any witnesses or by any of the lawyers in prosecuting and defending the case. I respectfully deny the motion.

MR. GOLDBERG: Thank you, Your Honor.

MS. PINNOCK: Your Honor, if I could just make these -- I walked over and got...

THE COURT: You have more things on that for the record?

MS. PINNOCK: No, sir. I, I started heading forward, and then Mr. Goldberg started talking, so I didn't want to walk back across.

MR. GOLDBERG: Sorry.

THE COURT: All right. Let's bring the jury.

(MEMORANDUM BY DEFENSE MOVED INTO EVIDENCE AS COURT'S EXHIBIT NUMBER 2.)

(MEMORANDUM BY DEFENSE MOVED INTO EVIDENCE AS COURT'S EXHIBIT NUMBER 3.)

(THE JURY ENTERS AT 2:33 P.M.)

THE COURT: Okay, welcome back.

Your next witness.

MS. SAMPSON: Thank you, Your Honor. The state calls Rachel Nguyen.

RACHEL NGUYEN, BEING DULY

SWORN, TESTIFIES AS FOLLOWS:

CLERK: Please have a seat. State your full name for the record.

WITNESS: My name is Rachel Nguyen.

VOIR DIRE EXAMINATION BY MS. SAMPSON:

Q. Can you spell your last name?

A. N-g-u-y-e-n.

Q. Agent Nguyen, where do you work?

A. I work at the South Carolina Law Enforcement Division, most commonly known as SLED.

Q. And how long have you worked for SLED?

A. I've worked for SLED, it's going to be seven years in September.

Q. And what do you do there?

A. I am currently a forensic serologist within the DNA Casework Department.

Q. And what kind of training have you gotten to be a forensics serologist?

A. I've received in-house training at SLED for the component of forensic serology. I went under a year-long training process under a court-qualified forensic serologist. During this time, I was able to observe the different evidence processing techniques, as well as the different types of analysis we perform there. Also during this time, I able to practice these

various techniques under close supervision. After time had passed, I then went through training samples, which I performed independent analysis to prove my knowledge and abilities to perform various tests we perform in the serology department.

Once that was successfully completed, I then entered a competency phase. So, that's testing my knowledge and ability to perform all the techniques that we perform independently. These -- this competency phase included a written exam, an oral exam, a competency test, which is a mock case, as well as a mock court. All these components were successfully completed. I was then deemed able to do independent analysis within the area of forensic serology.

After that time, I did go -- undergo another year-long training process in the area of DNA extraction and DNA quantitation. Briefly what that is is that would be taking -- trying to pull out DNA from different substances and then seeing if there's any present. That was much similar to my serology training. I was supervised under a court qualified DNA analyst. I was able to observe the various extraction techniques, as well as the quantitation process. Then I performed various practice samples -- these samples are not casework samples -- to prove ability to perform these

different techniques.

Then much similar to my serology training, I had to perform these techniques independently on trade examples. There were fifty of them. Once that was completed, I then went under another competency phase. It was very similar. It was a written exam, an oral exam, a mock case, and then a mock court. Once all these components were successfully completed, I was able to do independent casework from the portion of DNA extraction to DNA quantitation.

Q. And you talked about the test. Did you pass all of your tests?

A. I did pass all of my testing.

Q. And have you been qualified as an expert before?

A. I have been qualified as an expert before.

Q. In what field?

A. Forensic serology.

MS. SAMPSON: At this time, Your Honor, I'd ask that Agent Nguyen be qualified in the field of forensic, forensic serology.

THE COURT: Any objection?

MS. PINNOCK: No objection.

THE COURT: She is so qualified.

MS. PINNOCK: No objection.

MS. SAMPSON: Thank you, Your Honor.

DIRECT EXAMINATION BY MS. SAMPSON:

Q. So, Agent Nguyen, how did you become involved in this case?

A. So, my involvement is this -- in this case is relatively recent. The DNA analyst Ryan DeWane requested me to perform blood screening on a couple sets of swabs and then the DNA extraction and quantitation on them.

Q. So, I want to stop you a second. The jury's heard a little bit about the presumptive positive, so I'm just going to go straight to DNA extraction. Can you explain to them what is DNA extraction?

A. Do you want me to explain what I did or in general?

Q. Just in general, yes.

A. So, in general we're going to take -- I'm sure you heard about the cuttings that serologists take from clothing or other items and swabs that they collect potential DNA for. I'm going to take small portions of those swabs or cuttings, and then I am going to try to pull the DNA out of those to separate it out. Following that, it will be quantitated. So, if there's quantity there, whether there's DNA present, whether it's absent. If present, how much is there.

Q. How do you pull it? Like it -- how does that happen?

A. So, the process is that a small cutting of the swab, which is a sterile Q-tip-like device, and/or a cutting. I will cut an even smaller portion off of that, put it in a test tube. I will add reagents, which are chemicals that aid in kind of pulling the biologicals from the substance. After that, I will put it on an instrument. An instrument is a scientific machine. It will aid in the extraction process, so once again it's trying to pull it away from the cotton swab or the cutting of the shirt and just isolate it so it's by itself. Then I will take that portion of the liquid that's in the test tube, and I will put in a different instrument or scientific device and that -- it will analyze it and then give us data, which I do not read data. The data analyst, Ryan DeWane, will review it.

Q. So, now I'm going to go to what you did in this case.

A. Okay.

Q. Item 67, is that one of the items you tested?

A. May I review my notes?

Q. You may.

A. Yes, item 67 is an item I tested.

Q. And what was item 67?

A. Item 67 is swabs from the rear side of center console of the Chevrolet Impala.

Q. And what was your job? What did you do in this particular -- with this particular item?

A. So, upon receiving this evidence, I took a sterile swab. Once again, it's like a sterile Q-tip. I dampened it with sterile water. Then I applied that to the swabs that were submitted to try to pull any stain off. Then I performed our phenolphthalein test, which is a presumptive test, to see the possible presence of blood.

Q. And what was the result of that test?

A. The result was positive.

Q. So, what did you do based on that?

A. So because it was positive, as I briefly mentioned before, I cut a small portion of the swab and put it in a test tube to extract and quantitate.

Q. And then testing it any further is not your job. Is that correct?

A. No. After quantitation, all the samples will be handed to Ryan DeWane.

Q. Now I want to move to item 71. What is item 71?

A. Item 71 is swabs from front passenger seat headrest of the Chevrolet Impala.

Q. And what was the result of that testing?

A. It was presumptively positive for phenolphthalein, which is our blood screen test.

Q. So, what did you do based on that?
A. I did the same thing that I did with item 67 that I just mentioned. So since it was positive, I cut a portion out and then did the extraction and quantitation.
Q. And item 72?
A. Item 72 are swabs from rear passenger seat of Chevrolet Impala.
Q. What was the result of that test?
A. Those were positive for phenolphthalein, and the same process occurred as the previous swabs.
Q. And item 75?
A. Item 75 were swabs from side of driver seat headrest of the Chevrolet Impala.
Q. And again what was the result of that test?
A. That was positive for phenolphthalein.
Q. So, what did you do based on that?
A. The same thing as the previous sets of swabs.
Q. Item 76?
A. Item 76 swabs from rear driver side seat of Chevrolet Impala.
Q. And what was the result of that test?
A. It was positive for phenolphthalein.
Q. So, what did you do based on that?
A. The same process as the previous swabs.

Q. All right, item 77?
A. Item 77 is swabs from driver seat, seat buckle receiver of Chevrolet Impala.
Q. What were the results of that test?
A. It was also positive of the phenolphthalein test.
Q. Based on that, what did you do?
A. The same as the previous swabs that I've mentioned.
Q. Now 125.1, what was that?
A. Item 125.1 are swabs from sole of right shoe of pair of pink Adidas size 9 shoes from closet underneath stairs from Maria Howard's residence.
Q. And did you do any testing to that?
A. I did not do any testing. From my understanding, they had already been tested with phenolphthalein.
Q. So, even though on this report there are some things that you did, there are some things that other people did. Is that fair to say?
A. Yes.

MS. SAMPSON: Beg the court's indulgence.

(A PAUSE.)

MS. SAMPSON: Thank you. No further questions.

THE COURT: Cross-examination?

MS. PINNOCK: Please the court, Your Honor?

THE COURT: Yes.

CROSS-EXAMINATION BY MS. PINNOCK:

Q. Just briefly, do you -- what day -- what, what's the date that you were asked to do, do this testing?
A. I do not have a record of the specific date it was requested, but I do have the date and time I took them into my custody.
Q. What, what is that?
A. Okay, I took them into my custody on June 11 of 2021 at 12:44. Those were the -- everything in our container L. A container just holds multiple items. So, that would be items 67, 71, 72, 75, 76, and 77. Item 125.1 I took into my custody at the same time, so June 11, 2021, at 12:44.
Q. 2021, not 2019?
A. 2021.

MS. PINNOCK: Thank you.

WITNESS: You're welcome.

THE COURT: Anything further?

MS. SAMPSON: No, sir.

THE COURT: You may step down.

(THE WITNESS EXITS THE STAND.)

THE COURT: Next witness.

MR. GOLDBERG: State calls Agent Ryan DeWane.

RYAN DEWANE, BEING DULY SWORN, TESTIFIES AS FOLLOWS:

CLERK: Please have a seat. State your full name

for the record.

WITNESS: Ryan DeWane, D-e-w-a-n-e.

VOIR DIRE EXAMINATION BY MR. GOLDBERG:

Q. Good afternoon.

A. Good afternoon.

Q. Agent DeWane, where are you employed?

A. I work for the South Carolina Law Enforcement Division, also known as SLED.

Q. Please tell the jury what your duties are at SLED.

A. I am a forensic scientist assigned to the DNA casework department.

Q. How long have you been there?

A. Approximately five and a half years.

Q. Can you tell the jury a little bit about your background, training, and additional experience you might have?

A. I have a bachelor of science degree in biology preprofessional from Appalachian State University in Boone, North Carolina; I also have two minors in chemistry and English. I'm currently pursuing my master's degree in biology from Clemson University in Greenville, South Carolina. During my education, I have completed courses in molecular biology, genetics, statistics, and biochemistry. These four courses are considered the foundations of forensic biology.

When I was hired at SLED, I underwent an extensive training profile. This training profile included practice samples, training examples, mock cases, written exams for DNA and serology, a report writing exam, an oral exam, a technical review exam, a competency, and a mock court exam.

Q. Do you participate in any training or continuing education?

A. Yes. We are required to complete approximately eight hours of continuing education yearly.

Q. How many times have you -- well, have you ever testified in court before?

A. I have.

Q. Approximately how many times?

A. Eight times.

Q. And have you ever been qualified as an expert?

A. I have.

Q. In what field?

A. Forensic DNA analysis and serology.

MR. GOLDBERG: Your Honor, at this time the state would offer Agent DeWane as an expert in DNA analysis -- forensic DNA analysis and serology.

THE COURT: Any objection?

MS. PINNOCK: No objection.

THE COURT: She is so qualified.

MR. GOLDBERG: Thank you, Your Honor.

DIRECT EXAMINATION BY MR. GOLDBERG:

Q. Agent DeWane, what is DNA?

A. DNA stands for deoxyribonucleic acid. This is just a chemical found in all of our bodies. We get half of it from our mother and half from our father, and aside from identical twins, no two people have the same DNA profile.

Q. So when we talk about DNA analysis, what does that mean?

A. DNA analysis is our process of developing a DNA profile from either evidence or a known standard.

Q. You said developing a DNA profile. What does that mean?

A. A DNA profile is your biological DNA represented in the form of a series of numbers, and this is what we use to compare.

Q. And in terms of comparison, what are you doing with the DNA profile in order to compare it? How does that process work?

A. We develop a DNA profile from known individuals associated with the case; we then compare their profile to the evidence profiles developed.

Q. Okay, and when you do that, what does it mean if you come back with a result that a particular profile is

included?
A. This means that the individual is possibly included in the mixture or profile.
Q. What is a mixture?
A. A mixture is an item that has multiple individuals on the same item.
Q. An item has multiple individuals on the same item? Is that what you said?
A. That is correct.
Q. Okay. So this pen, for example, if I were to hand it to you, would it be possible that both my DNA profile and your DNA profile would be on the pen?
A. Yes, that is possible.
Q. And so would it be possible then for there to be a mixture of your profile and my profile on the pen?
A. That is correct.
Q. So, if you receive an item of evidence, if you receive this pen under that example, what would you do in order to determine which profile belongs to which person?
A. We use a statistical software profile called STRmix to do our comparisons.
Q. And as a result of using that software, you can have a result where somebody, I believe you said, is included in the mixture, correct?

A. That is correct.
Q. Could you can also have a DNA profile excluded?
A. Yes. That is correct.
Q. All right. So, you use STRmix, you said, to conduct this analysis, correct?
A. That's correct.
Q. How do you report results of that analysis?
A. If we have any possible inclusions, then we report that conclusion with a statistic.
Q. Okay. Is the same true about exclusions?
A. If an individual is excluded, then we just say that they are excluded from the profile.
Q. With no statistical value to the level of exclusion, I guess?
A. That is correct.
Q. Okay. So, when you're talking about the -- you said you assign a statistical value if there is a profile included, correct?
A. That is correct.
Q. All right. So, how do you explain what that statistic is and what that means?
A. We have a verbal scale at the end of our reports. This shows our level of support based on the number that's generated.
Q. And what does that verbal scale consist of?

A. We have multiple levels of support. Our lowest level is weak support. We then have -- excuse me -- moderate support, strong support, and then very strong support.

Q. So, the highest level of certainty -- not certainty, but the highest level statement that you would make about the inclusion of my DNA on this pen if the science backed it up, are you saying that would be that there is very strong support for my inclusion?

A. For that conclusion, yes.

Q. Okay. Do you guys, in regards to STRmix, that analysis, you use the word match?

A. We do not.

Q. And does that mean that you're any less confident about a particular result than if you did use the word match?

A. No.

Q. So, you said that there's a number that you associate, a statistical value, right? How does that number -- what is the relationship between that number and the level of support in the verbal scale you just described?

A. The larger the number is, the more support will be associated with it. Our strongest level of support starts at 1 million and above.

Q. All right, and when you're talking about the statistics, can you tell the jury what a, in the context of that, what a likelihood ratio means?

A. A likelihood ratio is the type of statistic that we calculate for STRmix. This is simply a mathematical comparison of two possible scenarios, that it could explain the DNA profile that we get. The number that is generated is always supporting which scenario is more likely to create that profile.

Q. Two scenarios. You compare them. One scenario suggests what?

A. The first scenario suggests that individual is included.

Q. And the second?

A. That they are excluded or it's someone else.

Q. Okay. Shifting gears slightly and just talking about DNA in general, there's obviously a lot of items of evidence that you tested. How is it that DNA evidence actually ends up on a person or an item or a thing?

A. We can get DNA evidence from biological fluids such as saliva, sweat, or blood; we can also get it from hair, and most commonly we get it from touch, which just means that you leave cells behind when you touch something.

Q. Okay, and that could be from any other person that you come in contact with?
A. That is correct.
Q. Could it end up -- even be any person that you have not come in close contact with?
A. Under certain circumstances, that is correct.
Q. Okay. Now conversely, can you talk about some reasons how I could come in close contact with someone and their DNA does not end up somewhere on me?
A. This would depend on many different factors. If you did not physically interact with the person, it is unlikely that your DNA would be present. If you're wearing clothing and they only touch your clothing, it's unlikely or it's less likely that your DNA would be transferred. If you touch their skin and they're sweating, then that's a higher chance of collecting their DNA. Some individuals are also what we call shedders, which is a phenomenon where some people end up shedding their cells much more frequently than the average person.
Q. All right. Thank you. Let's turn your attention to the specific items in the case that you tested. You generated a lengthy report in connection with this case. Is that correct?
A. That is correct.

Q. Do you have that in front of you?
A. I do.
Q. All right, I want to turn your attention to item 2 in your report, and what is item 2?
A. Item 2 is swabs from the left shoe, back, white in color portion of Nathaniel Rowland.
Q. Okay, and do you have any results for that item as it relates to Samantha Josephson?
A. I do.
Q. And what, what is your result?
A. A DNA profile suitable for comparison was developed. The DNA profile was interpreted as a mixture originating from two individuals. The first scenario is Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus scenario two, where it's two unidentified, related individuals that contributed to the mixture, meaning she's not a contributor. The result of that comparison is the DNA profile is approximately 3.8 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.
Q. Tying back in our verbal scale, what, what level of support is that for Samantha Josephson's inclusion in

the profile on Mr. Rowland's shoe?

A. This would fall into our very strong support range.

Q. Okay. All right. Let's talk about a couple of other items of Mr. Rowland, related to Mr. Rowland. Item number 4, and that's your item number, not, not an exhibit number. Item 4 are swabs from underneath Mr. Rowland's right hand fingernails. Is that correct?

A. That is correct.

Q. All right, and what was your -- well, let me ask you this. What results do you have related to Ms. Josephson in regard to Mr. Rowland's right hand fingernails?

A. The DNA profile was interpreted as a mixture originating from three individuals. Because these are Nathaniel Rowland's fingernails, we can expect his DNA to reasonably be there. So, he is -- his DNA profile is considered in both scenarios.

So, scenario one is Nathaniel Rowland, Samantha Josephson, and an unidentified, unrelated individual contributed to the mixture versus the scenario where Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture. The result of that comparison is the DNA profile is approximately 94 million times more likely if Nathaniel Rowland, Samantha Josephson, and an unidentified, unrelated individual

contributed to the mixture than if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture.

Q. Just making sure I got it. So, we're talking about Mr. Rowland's right hand and fingernails, correct?

A. That is correct.

Q. And obviously he's going to be included in that mixture, correct?

A. It's reasonable to expect his DNA to be included.

Q. And there is, according to your verbal scale, very strong support that Ms. Josephson is included as well?

A. That is correct.

Q. All right. All right, turning your attention to item number 50 in your report -- I'm sorry. Forgive me. I jumped ahead of myself. Item number 5. That is left hand fingernails of Mr. Rowland, correct?

A. That is correct.

Q. All right. What was the result of your comparison on that item?

A. The DNA profile developed is a mixture of at least five individuals. Due to the complexity of the mixture, no further interpretation will be offered.

Q. Can you explain why that is?

A. We can only interpret up to four individuals in a mixture. Because this was so complex, we are unable to

separate individuals and, therefore, we do not use it for comparisons.

Q. Too many contributors to the profile, so you can't even come to a conclusion about it?

A. That is correct.

Q. All right. Item 50, please. I believe that's page 22 of your report, and item 50 is a cutting from the heel area of Mr. Rowland's black socks, correct?

A. This is item 50.1, yes.

Q. I'm sorry. Thank you. Can you, can you distinguish the difference between why there's a .1?

A. Yes. This is called a subitem. The parent item or the original item is item 50, and when a forensic serologist takes a cutting, it becomes subitemized. So, it's 50.1.

Q. When you say cutting, so you mean a literal piece of the fabric of -- in this case, a sock would be cut out and taken from the sock and given to you for further interpretation?

A. That is correct.

Q. Okay. So, this 50.1 is a cutting from Mr. Rowland's sock?

A. That is correct.

Q. And what was your result regarding Ms. Josephson's inclusion on that?

A. The DNA profile suitable for comparison was developed. The DNA profile was interpreted as a mixture originating from two individuals. The first scenario is Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus a scenario where it's two unidentified, unrelated individuals that contributed to the mixture. The result of that comparison is the DNA profile is approximately four septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.

Q. All right. So -- okay. Thank you. Item 54 -- excuse me, 54.1.1 on page 23, cutting from bandanna from Mr. Rowland. Is that right?

A. That is correct.

Q. Let me show you what's already been marked as State's 11 from -- it's State's 11 that is in evidence. I believe these are the two bandannas that were taken. Does that look to be correct?

A. I did not see the parent item; I only received a cutting.

Q. Okay. Fair enough. What was, what was your first comparison on that item?

A. This was a comparison to Samantha Josephson. The

DNA profile was interpreted as a mixture originating from three individuals. The first scenario is Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus the scenario where it's three unidentified, unrelated individuals that contributed to the mixture. The result of that comparison is the DNA profile is approximately 2.6 septillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. Okay. So, earlier you talked about mixtures. So, this item is a mixture, you said, of three different individuals. Is that correct?

A. That is correct.

Q. And based on what you've just described, is it your testimony that as one of the contributors to that mixture, there is very strong support that it is Ms. Josephson. Is that right?

A. In order for this DNA profile to have been developed, yes.

Q. All right. So, as far as a second profile and your second comparison on that item, the bandanna from Mr. Rowland, what was your conclusion there?

A. Under the same scenarios but comparing with

Nathaniel Rowland, the DNA profile is approximately 14 sextillion times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. 14 sextillion, is that a very strong support category?

A. It is.

Q. So of the three profiles found in the bandanna, very strong support for Samantha, correct?

A. That's correct.

Q. And very strong support for Mr. Rowland, correct?

A. That is correct.

Q. All right, and then part of the statement is that there's also -- could be an unidentified, unrelated individual. Is that correct?

A. That is correct.

Q. All right. Now, this jury has heard you several times thus far reference that phrase: unrelated, unidentified individual. Can you explain why that phrase is so prevalent throughout your report?

A. Whenever we have a mixture of -- in this example, three individuals -- if -- we can have positive associations with multiple people, but we have an unknown profile that does not match any of the standards

submitted in this case, then we just label that as an unidentified, unrelated individual.

Q. Every time you reference this unidentified, unrelated individual, are you talking about one person, like the same person for each one?

A. No, not necessarily.

Q. Okay. So, it could be one person who's not part of your known profiles to compare on one item and somebody completely different on another item?

A. Yes, that is possible.

Q. Okay. All right, I want to turn your attention to a grouping of items you tested related to Ms. Josephson, so I'm going to send you back to item number 11 from your report on page 8, and in regards to items 11 through, 11 through 15, are those all, according to your report, suspected hairs from the body of Ms. Josephson?

A. That is correct.

Q. In regards to 11.1 and -- 11.1, hair from the right hand of Ms. Josephson, 11.2, a hair, 12, suspected hair from right hand of Ms. Josephson, and 13 -- well, we'll just go through those first. In regards to those, what were your results related Ms. Josephson?

A. For item 11.1, the DNA profile was interpreted as a single source. The first scenario is that Samantha Josephson contributed the DNA profile versus scenario

two, where it's an unidentified, unrelated individual that contributed the profile. The result of that comparison is the DNA profile is approximately 6.8 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual contributed the profile.

For item 11.2, the DNA profile was interpreted as single source. Scenario one is Samantha Josephson contributed the DNA profile versus scenario two, where it's an unidentified, unrelated individual that contributed the profile. The result of that comparison is the DNA profile is approximately 7.1 quintillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual contributed the profile.

For item 12, the DNA profile was interpreted as single source. The first scenario is Samantha Josephson contributed the DNA profile; scenario two is an unidentified, unrelated individual contributed the DNA profile. The result of that comparison is the DNA profile is approximately 6.8 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual contributed the profile.

Q. For each of these items that you just discussed,

those hairs, you indicated they were -- profile was from a single source. What does that mean?

A. That means one individual is on the item.

Q. So, you know that there's only one individual present in the item, correct?

A. That is correct.

Q. And you make two hypotheses about that one thing, and in this instance you're saying that one hypothesis is Ms. Josephson is included, correct?

A. That is correct.

Q. And the other is that it's somebody else?

A. That is correct.

Q. But your ultimate -- ultimately are you stating that there is very strong support that she is the -- her DNA profile is the contributor to the single source item?

A. There is very strong support to see this DNA profile if Samantha Josephson contributed the DNA profile rather than if an unidentified, unrelated individual contributed the profile.

Q. All right. Thank you, and is it fair to say that the same would be true for -- the same conclusions in terms of very strong support for Ms. Josephson's inclusion would be correct for items 14.1, suspected hair, and 14.2, suspected hair, and 15, suspected hair

from the crotch region of the pants of Samantha Josephson?

A. That is correct.

Q. Okay. All right, I want to turn your attention to item 16, and that deals with fingernail scrapings from Ms. Josephson. Is that right?

A. That is correct.

Q. All right, and you've got that broken down into some sub, subitems?

A. I do.

Q. Okay. 16.1, right fingernail scrapings from Samantha Josephson. What are your results related to Ms. Josephson in that regard?

A. The profile DNA developed is attributable to Samantha Josephson.

Q. All right, and are there -- what are your results as it pertains to Mr. Rowland on that item?

A. Nathaniel Rowland is excluded as a possible contributor.

Q. For the right hand fingernail scrapings of Ms. Josephson, correct?

A. That is correct.

Q. And that was done by the STRmix analysis that you talked about earlier, that process?

A. That is correct.

Q. Is there a second type of process or analysis that you can do in regards to DNA profiles as well that's separate from the STRmix?
A. Yes.
Q. And what is that?
A. We also perform what is called Y-STR testing.
Q. What is Y-STR testing?
A. Y-STR testing is a type of technology that allows us to just isolate male DNA.
Q. Just for male DNA?
A. That is correct.
Q. Okay. So, did you perform Y-STR testing on this item, 16.1?
A. I did.
Q. And the process for conducting those tests is completely from the STRmix that you described earlier?
A. The statistic is different.
Q. The statistic is different, thank you. So, the likelihood ratios, the numbers you've been reciting, do you do that same thing for the Y-STR analysis?
A. No. It is a different type of statistic.
Q. Okay. Did you conduct that analysis on this item?
A. I did.
Q. And what was the result?
A. The partial Y-STR profile developed is insufficient

for interpretation.
Q. What does that mean?
A. That means that there was not enough DNA developed to interpret.
Q. So, in other words, you tried to take a second route to see what profile could be found under Ms. Josephson's right hand scrapings, but there wasn't enough there for you to interpret the results?
A. That is correct.
Q. Okay. Now, let's talk about 16.2, which is her left hand fingernail scrapings. Again, in that situation under the STRmix, what was your -- under STRmix, what was your finding?
A. The DNA profile developed is attributable to Samantha Josephson if ---
Q. And -- I'm sorry. Was Mr. Rowland included or excluded as part of that?
A. Nathaniel Rowland is excluded as a possible contributor.
Q. Did you attempt to do any Y-STR analysis on that item?
A. I did.
Q. And what was the result?
A. No Y-STR profile was developed.
Q. Okay. How is that different from what you just

described a moment ago about insufficient for interpretation?

A. No profile developed means there was no DNA developed. Insufficient means there was a little bit of DNA but not enough to interpret it or make any comparisons to it.

Q. All right. Now, those were, those were scrapings, I believe, but item 17 are fingernail clippings from Ms. Josephson's right hand. What's the difference between a scraping and clipping?

A. A fingernail clipping is when you clip the nail off the, the tip of the nail. A scraping is when you take a device and you just scrape underneath the nail, and then your swab that device for DNA.

Q. And again on 17, that one, the fingernail clippings from the right hand, the profile belongs to Ms. Josephson. Is that right?

A. The DNA profile developed is attributable to Samantha Josephson.

Q. And regarding Mr. Rowland?

A. Nathaniel Rowland is excluded as a possible contributor.

Q. Excluded, meaning there's no presence of his DNA under those items pursuant to STRmix analysis, correct?

A. That is correct. His -- there was no other profile

developed.
Q. No other profile developed, okay. Was there a Y-STR profile developed on this item?
A. Yes.
Q. All right, and what was the result of that profile's analysis?
A. Due to the inability to determine a number of contributors, no further interpretation will be offered regarding the Y-STR profile.
Q. Why does the number of contributors to a profile impact whether or not you can interpret it?
A. For this type of testing, we need to know how many individuals are included in order to know if it's suitable for statistics.
Q. So, you couldn't determine how many people were present as part of this Y-STR profile, correct?
A. That is correct.
Q. All right, let's talk about number 18, item 18, fingernail clippings from the left hand of Ms. Josephson. What are your results related to Ms. Josephson? Well, let me ask you this. What is your first comparison regarding that item?
A. The DNA profile was interpreted as a mixture originating from three individuals. Samantha Josephson is contributing to the mixture. These are her

fingernail, so we can reasonably expect her DNA to be present, so she will be present in both scenarios.

The first scenario is Samantha Josephson, the person of interest -- which just means whoever we're comparing to this mixture -- and an unidentified, unrelated individual contributed to the mixture versus the scenario of it being Samantha Josephson and two unidentified, unrelated individuals that contributed to the mixture. The result of that comparison is under the listed proposition, the following individuals are excluded as contributors to this mixture: Xavier McFadden, Nathaniel Rowland, Marcus Duane Williams, Maria Howard, Osharmar Williams, and Derod Fleming.

Q. All of those individuals are excluded from the profile that -- from Ms. Josephson's nail clippings?

A. That is correct.

Q. All right. Did you do a Y-STR test on that one?

A. I did.

Q. And what was the result?

A. The Y-STR developed is a mixture of at least two male individuals. The Y-STR profile of the major contributor to this mixture is from an unidentified male individual A. Due to the limited information developed, no further interpretation will be offered regarding the minor contributor.

Q. All. So, now we're into a whole other territory with the Y-STR that we haven't talked about previously. You just described in the Y-STR that there can be a major contributor and a minor contributor in the Y-STR profile?

A. That is correct.

Q. All right. What does that mean?

A. A major contributor means that they are the individual contributing the most DNA to a mixture. A minor contributor is the profile that is left.

Q. And you said as far as the major goes, it's an unidentified individual?

A. That is correct.

Q. And again, this could be somebody completely different from the unidentified individuals you mentioned earlier?

A. Yes, that is correct.

Q. Or it could be the same?

A. That is correct.

Q. Or it could be any number of anybody at any point?

A. Yes, that is correct.

Q. Okay, and because, because of the limited information, you're saying you could not come up with anything for the minor. Is that right?

A. Yes. No further interpretation could be offered

regarding the minor.
Q. All right. So regarding the minor contributor to this Y-STR analysis of, just for reference, Ms. Josephson's left hand fingernail clippings, the major you say is unidentified, right?
A. That is correct.
Q. As far as the minor goes, of all the standards that you have in the case, to include Mr. Rowland and the other names that you just read out, can any of those standards be included or excluded as a minor contributor on that?
A. I can make no comparisons to any of the individuals concerning the minor contributor.
Q. Just can't say one way or the other because there's not enough information?
A. That is correct.
Q. All right. You, you spoke earlier about the ability for a person to pick up DNA from various places. I believe you talked about touch DNA. Can you talk about that a little bit more about what touch DNA is?
A. Touch DNA is skin cells left behind when you touch an item.
Q. Okay, and how could a person, say, in a courtroom or a bar or a restaurant pick up some sort of touch DNA onto their person?

A. There are many scenarios where this could happen. If you were to touch something like a doorknob, then you may leave your DNA there. Another individual may then touch behind you, and you could also pick up their DNA. If you were to touch someone's arm, then you can pick up their DNA or leave your DNA behind.

There are certain circumstances wherein it's more likely to leave DNA. For instance, if that individual is sweating. When you touch their arm, it's more likely that their DNA will -- you'll pick up their DNA rather than if you don't.

Q. And in regard to this item we were most recently talking about, Y-STR testing?

A. That is correct.

Q. So, we're talking about male DNA profiles?

A. Uh-huh.

Q. So, would it be unusual to you if an individual was riding in a car with multiple males to have a Y profile appear under someone's nails or on their person?

A. I cannot offer an opinion on that. I can say that if there is contact, or if an individual were to touch something that had a lot of another individual's DNA on it, then yes, it could -- you could pick up their DNA.

Q. Okay. All right. In regards to item 19, which is a swab from Ms. Josephson's left ankle, what, what were

your results related to Ms. Josephson?
A. A DNA profile suitable for comparison was developed. DNA attributable to Samantha Josephson is present in this profile. DNA not attributable to Samantha Josephson is also present in this profile. Due to the limited information obtained regarding the foreign contributor, no further comparisons will be offered.
Q. All right.
A. The...
Q. Go ahead.
A. The partial Y-STR profile developed is a mixture of at least three male individuals. Due to the inability to calculate a statistic, no further interpretation will be offered.
Q. All right. So, we're talking about her left ankle, and obviously she's part of the profile, correct?
A. That is correct.
Q. It's a mixture. Is that right?
A. Yes.
Q. And one part of the mixture is her?
A. That is correct.
Q. But you can't determine how many other contributors there are to the mixture?
A. That is correct. There is too -- it was too

limited.
Q. Okay, and that was for the STRmix analysis, correct?
A. Yes, that is correct.
Q. For the Y-STR, there's a mixture of how many individuals?
A. At least three male individuals.
Q. But you're unable to calculate a statistic in that mixture. Is that correct?
A. That is correct.
Q. Can you talk about some of the ways in which -- we talked about touch DNA in terms of, like, your hands. You touch the doorknob. You touch something like that. Well, this item deals with ankle. So, how is it that a person could obtain a foreign, if you will, DNA profile on their ankle?
A. Again, there are many different circumstances that could lead to this. If someone were to touch your ankle, then your DNA profile could be present. If the individual were to rub up against another individual's leg or anything that maybe they have a lot of DNA, these are also circumstances when it would be possible to pick up their DNA.
Q. All right. Thank you. I want to move ahead to item 84.1. That's on page 30 of your report. Is that

-- and that is the swabs from shoes of Ms. Josephson, correct?

A. That is correct.

Q. All right, and what results did you obtain related to Ms. Josephson?

A. The DNA profile was interpreted as single source. The first scenario is Samantha Josephson contributed the DNA profile versus the scenario where an unidentified, unrelated individual contributed the DNA profile. The result of that comparison is the DNA profile is approximately 7.6 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual contributed the profile.

Q. All right. Item 103 on page 31 is a suspected hair from Ms. Josephson's shirt. Is that right?

A. That is correct.

Q. And there are four subitems to that?

A. That is correct.

Q. Is it fair to say that for three of those four subitems of the hair from her shirt that no DNA profile was developed? Is that right?

A. That is correct.

Q. All right. What about the one -- is there one that did have a profile?

A. Yes.
Q. Okay, and what did you find out about that?
A. For item 103.3, a DNA profile was developed. Due to the limited information obtained, no further interpretation will be offered.
Q. Not enough information to reach any conclusions?
A. That is correct.
Q. All right. Thank you. All right, let's shift gears a little bit to some other -- another grouping of items in evidence in the case. Let's talk about items that were collected from the black Chevy Impala. I want to take you back to item 3, page 4 of your report. That is a swab from a rear driver door interior panel. Did you test that, or was any testing done for that item for whether or not it was blood?
A. Yes.
Q. And what was the result of that?
A. Presumptive testing for blood was positive.
Q. Okay, and then as far as the DNA analysis, what are your results related to Ms. Josephson on the swab from the driver door interior panel?
A. The DNA profile was interpreted as a mixture originating from two individuals. The first scenario is Samantha Josephson and an unidentified, unrelated individual versus the scenario of it being two

unidentified, unrelated individuals. The result of that comparison is the DNA profile is approximately 3 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.

Q. So, in regards to that swab from the interior of the driver door -- rear driver door panel, very strong support that that blood is Ms. Josephson's. Is that correct?

A. I cannot say that result.

Q. It, it was presumptive for blood, right?

A. That is correct.

Q. Very strong support that her DNA is included in that mixture?

A. Very strong support for the possible inclusion of Samantha Josephson.

Q. Thank you. Item 22. Actually, item 22.1, page 14. That is a swab from a stain below address window on envelope with handwritten list on back, correct?

A. That is correct.

Q. All right. What was your first comparison that you did on the envelope, the stain from the envelope?

A. The DNA profile was interpreted as a mixture originating from two individuals. The first scenario is

Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus the scenario where two unidentified, unrelated individuals contributed to the mixture. The result of that comparison is the DNA profile is approximately 3.7 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.

Q. What were your findings for that item as it pertained to Mr. Rowland or any of the other standards that you were provided?

A. Under the same scenario, the following individuals are excluded as contributors to the mixture: Xavier McFadden, Nathaniel Rowland, Marcus Duane Williams, Maria Howard, Osharmar Williams, Derod Fleming.

Q. All right. 22.2 is the same envelope, the handwritten list. This is a swab from the outer edge of that item. What, what was your first comparison on that item?

A. The DNA profile is interpreted as a mixture originating from three individuals. The first scenario is Samantha Josephson and two unidentified, unrelated individuals contributed versus the scenario of three unidentified, unrelated individuals contributing to the

mixture. The result of that comparison is the DNA profile is approximately 42 billion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. So, again using your verbal scale, there is -- would it be correct to say that there it very strong support that Ms. Josephson is part of the mixture on that item, the envelope's outer edge?

A. There is very strong support to see this DNA profile if the scenario were Samantha Josephson is included as a possible contributor.

Q. Thank you. Were there any other individuals that were included in that analysis?

A. There were not.

Q. All right. All right, I want to take you to item 38 -- 38.1, sorry. That is -- what item is that?

A. These are swabs from the cup area and in between fingers of item 38, which are blue plastic gloves from the front passenger door panel of the Chevrolet Impala.

Q. What were your results of that analysis?

A. The DNA profile developed is a mixture of at least five individuals. Due to the complexity at this mixture, no further interpretation will be offered.

Q. Now, I believe you spoke earlier about -- I think you said if it's more than four contributors, then you cannot reach a conclusion. Is that right?
A. That is correct.
Q. And there were five on this item?
A. Yes, that is correct.
Q. The blue plastic glove from inside the Impala?
A. That is correct.
Q. Okay, 39.1, did you have the same findings?
A. Yes.
Q. And that is also a blue glove from the Chevy Impala. Is that right?
A. That is correct.
Q. Okay. Thank you. All right, item 45.1, can you tell us what that is?
A. These are swabs from the right sleeve near the cuff of a black jacket, brand Robert Comstock, size XL from the rear passenger seat of the Chevrolet Impala.
Q. And how many profiles were developed from that swab?
A. The DNA profile was interpreted as a mixture originating from two individuals.
Q. All right, and what are the results related to Ms. Josephson on that item, the jacket?
A. In the scenario where Samantha Josephson and an

unidentified, unrelated individual contributed to the mixture versus the scenario of it being two unidentified, unrelated individuals that contributed to the mixture, the result is the DNA profile is approximately 3.7 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.

Q. Were any of the other known standards that you had included in that mixture?

A. No.

Q. Staying with the black Comstock jacket found in the Impala, item 45.2, I'd ask you the same question about your first proposition.

A. The DNA profile was interpreted as a mixture originating from three individuals. The first scenario is Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus the scenario of being three unidentified, unrelated individuals. The result of that comparison is the DNA profile is approximately 2.7 septillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to

the mixture.
Q. All right, and was any -- were any of the other known standards included in that profile?
A. No.
Q. Okay. Can you talk for a moment about the relationship between touch DNA as you described it earlier versus DNA profiles developed from other bodily fluids such as blood on a particular item in a mixture?
A. The type of DNA that we get from blood is from the white blood cells within it; the type of DNA we get from touch DNA is from skin cells. We typically have more abundance in blood than we would in skin cells.
Q. So, is it fair to say that if there was an item that contained blood, it could overpower a touch DNA sample if it -- if there was any other DNA on that, whatever the item is?
A. Yes, that is possible.
Q. Okay. Item 45.3, also part of the Robert Comstock jacket from the back seat of the Impala, what was your finding as a result of that analysis?
A. The DNA profile developed is a mixture of at least five individuals. Due to the complexity of this mixture, no further interpretation will be offered.
Q. Okay. Item 62 -- it's on page 24 -- the swab from the steering wheel of the Impala, were you able to reach

any results regarding the steering wheel as it pertains to Mr. Rowland?

A. Yes. The DNA profile was interpreted as a mixture originating from three individuals. In the scenario where Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture versus a scenario where three unidentified, unrelated individuals contributed to the mixture, the result is the DNA profile is approximately 970 billion times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. And again, the level of support on your verbal scale that goes with that statistic regarding Mr. Rowland's inclusion in the mixture on the steering wheel is what?

A. This statistic falls in our very strong support range.

Q. Which is your highest level of support?

A. That is correct.

Q. Did you also have any results regarding this steering wheel item as it relates to Maria Howard?

A. I did.

Q. Okay, and what was that result?

A. Under the same scenarios, the DNA profile is approximately 41 septillion times more likely if Maria Howard and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. Item 63 is the gearshift from the Impala, correct?

A. That is correct.

Q. What was the first comparison you did regarding the gearshift of the Impala?

A. The DNA profile was interpreted as a mixture originating from four individuals. In the scenario Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture versus it being four unidentified, unrelated individuals that contributed to the mixture, the result of that comparison is the DNA profile is approximately 390 billion times more likely if Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.

Q. All right, and then regarding the same item, the gearshift, was Mr. Rowland included in that as well?

A. Under the same scenario, the DNA profile is approximately 150 billion times more likely if Nathaniel Rowland and three unidentified, unrelated individuals

contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.

Q. So, in regards to both Mr. Rowland and Ms. Josephson, there is very strong support for their inclusion on the gearshift as part of the mixture, correct?

A. That is correct.

Q. All right, and then lastly in regards to the gearshift, what were your findings as it pertains to Maria Howard?

A. Under the same scenarios, the DNA profile is approximately 2 septillion more likely if Maria Howard and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.

Q. What level of support does that fall into on the verbal scale?

A. This falls into our weak support range.

Q. Is that the lowest level of support?

A. That is correct.

Q. Sticking with the car, item 64, a swab from the exterior door handle of the rear passenger side of the Impala, correct?

A. That is correct.

Q. All right. Was Ms. Josephson included in that

profile or that mixture rather?
A. The DNA profile was interpreted as a mixture originating from three individuals: Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus three unidentified, unrelated individuals contributing to the mixture. The result of that is the DNA profile is approximately 140 quadrillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.
Q. And the level of support for Samantha's inclusion on this item, the door handle of the rear passenger side, is what?
A. This statistic falls in our very strong support range.
Q. Okay, same item, same swab, same profile -- mixture, excuse me. What was your result related to Mr. Rowland?
A. The DNA profile is approximately 9100 times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.
Q. What level of support do you have -- does that

correspond to?
A. This statistic falls in our moderate support range.
Q. All right, last one regarding that exterior door handle. What was the result regarding Maria Howard?
A. The DNA profile is approximately 2 times more likely if Maria Howard and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.
Q. 2 times. Does that fall into the weak support category?
A. That is correct.
Q. All right. Item 139.
A. I apologize. I need to add something to that.
Q. Sure. Yes.
A. Result.
Q. Yes.
A. Whenever there's a possible inclusion of multiple individuals in the mixture, we have to compare them together just to be sure that still works. For this item, the DNA profile obtained could not be explained by a combination of DNA from Samantha Josephson, Nathaniel Rowland, and Maria Howard under the list of propositions all contributing to the profile. When we have this

happen in an item, it is recommended to draw your conclusion based on our level support for the -- for those, like the statistic associated with the individual.

Q. All right. Thank you. Item 139.1, page 61, what is that item?

A. These are swabs from the foot bed and understrap of black and red Nike flip flop from the trunk of the Chevrolet Impala.

Q. Were you able to interpret that item?

A. The DNA profiles developed is a mixture of at least five individuals. Due to the complexity of the mixture, no further interpretation can be offered.

Q. All right. Item 140.1, what is that?

A. This is a swab from scraping the interior of a black beanie, the brand Field Grade, from the trunk of the Chevrolet Impala.

Q. Okay, and what was your first comparison to that item?

A. The DNA profile was interpreted as a mixture originating from four individuals. The first scenario is Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture versus the scenario of four unidentified, unrelated individuals contributing to the mixture. The result of that

comparison is the DNA profile is approximately 210,000 times more likely if Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.

Q. All right. So, according to the verbal scale, that would be what level of support for Ms. Josephson being part of the mixture on the beanie?

A. This statistic falls in our strong support range.

Q. Okay, and your second comparison regarding Mr. Rowland?

A. The DNA profile is approximately 11 octillion times more likely if Nathaniel Rowland and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individual contributed to the mixture.

Q. I'm showing you what's been marked as State's 18 for ID. Can you tell me what that item is?

A. This is the parent item, which is the black beanie.

Q. From item 140.1 that you just discussed?

A. That is correct.

Q. And again, regarding the analysis on this item, State's 18 for ID, you indicated strong support for Ms. Josephson's inclusion in the mixture. Is that correct?

A. That is correct.

Q. And very strong support for Mr. Rowland's inclusion in this mixture, correct?

A. That is correct.

MR. GOLDBERG: Your Honor, at this time the state would offer State's Exhibit 18 into evidence.

THE COURT: Says the defense?

MS. PINNOCK: Your Honor, I would object for lack of foundation.

THE COURT: That was marked for ID purposes only yesterday. It is admitted at this time.

MR. GOLDBERG: Thank you, Your Honor.

(BEANIE MARKED INTO EVIDENCE AS STATE'S EXHIBIT NUMBER 18.)

BY MR. GOLDBERG:

Q. Just very, very briefly, that's the beanie we're talking about, Agent DeWane, correct?

A. I did not see the parent item; I only received the cutting.

Q. The cutting from this item, I guess, from item 140?

A. That is correct.

Q. Thank you. All right, one more item regarding -- well, couple more items regarding the car. Item 47. I'm going to jump back. Sorry. 47.1, that's on page 20. Is that right?

A. That is correct.

Q. All right, and what was your results regarding that related to Samantha Josephson on that item? What is, what is the item, 47.1?

A. These are swabs from the foot bed and understrap of a black and red left side flip lop found in the truck of the Chevrolet Impala.

Q. And your results related to Ms. Josephson on the flip flop in the trunk?

A. The DNA profile was interpreted as a mixture originating from three individuals. The first scenario is Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus the scenario of three unidentified, unrelated individuals. The result of that comparison is the DNA profile is approximately 2.9 septillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. Very strong support, correct?

A. That statistic falls in our very strong support range.

Q. And what about your results as it pertains to Mr. Rowland in regards to the flip flop from the truck?

A. Under the same scenarios, the DNA profile is

approximately 35,000 times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. All right, thank you, and what level of support was that?

A. This falls into our strong support range.

Q. Thank you. Did you also generate a second report in this case regarding some swabs taken from the Impala?

A. I did.

Q. All right. You have it in front of you?

A. I do.

Q. If I may refer you to that, please? In regards to item 67, it was a swab from rear side center console of the Impala. Is that right?

A. That is correct.

Q. Was Ms. Josephson included as that -- part of that mixture?

A. The DNA profile was interpreted as single source. This scenario is Samantha Josephson contributed the DNA profile versus an unidentified, unrelated individual contributed the DNA profile. The result of that is the DNA profile is approximately 6.8 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual

contributed the profile.
Q. And this swab from the rear side center console, was it tested for blood?
A. Yes. Presumptive testing for blood was positive.
Q. Item 71, swab from front passenger seat head rest, was that tested for blood?
A. Yes. Presumptive testing for blood was positive.
Q. And the results related to Ms. Josephson's inclusion?
A. The DNA profile was interpreted as a mixture originating from two individuals. Scenario one is Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus a scenario where two unidentified, unrelated individuals contributed to the mixture. The result of that comparison is the DNA profile is approximately 3.8 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.
Q. All right. Item 72, rear passenger seat of the Impala, was there -- was that tested for blood?
A. Yes. Presumptive testing for blood was positive.
Q. And your result regarding Ms. Josephson's inclusion for that item, which is a swab from the rear passenger

seat of the Impala?
A. The DNA profile was interpreted as a mixture originating from two individuals. Scenario one is Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus the scenario where two unidentified, unrelated individuals contributed to the mixture. The result of that is the DNA profile is approximately 4 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.
Q. Number 75, item 75, swab from the side of the driver's seat head rest of the Impala, was that tested for blood?
A. Yes. Presumptive testing for blood was positive.
Q. And the results regarding Ms. Josephson on that item?
A. The DNA profile was interpreted as single source. Scenario one is Samantha Josephson contributed the DNA profile versus an unidentified, unrelated individual contributed the DNA profile. The result is the DNA profile is approximately 6.8 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual

contributed the profile.

Q. And lastly regarding that set of items, item 77, swab from the driver's seat -- driver's seat seat buckle receiver. Is that right?

A. That is correct.

Q. And was that tested for blood?

A. Presumptive testing for blood was positive.

Q. And the results of your analysis regarding Ms. Josephson?

A. The DNA profile was interpreted as single source. Scenario one is Samantha Josephson contributed the DNA profile versus scenario two, where an unidentified, unrelated individual contributed the DNA profile. The result of that is the DNA profile is approximately 6.8 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual contributed the profile.

Q. All right. Thank you, Agent DeWane. I want to turn your attention to the last grouping of items that we're going to discuss, and these were items that, as testified to earlier, came from the Mountainbrook series of evidence. Item 106.

THE COURT: As she reviews that, let's all stand for a moment.

(A PAUSE.)

THE COURT: Okay.

BY MR. GOLDBERG:

Q. All right, item 106.1, what is that?

A. This is a swab from the finger of a black right-hand glove from the white basket from the closet left of the bed from Maria Howard's bedroom.

Q. And what were your results of this glove as it relates to Ms. Josephson?

A. The DNA profile was interpreted as a mixture originating from two individuals. The first scenario is Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus it being two unidentified, unrelated individuals that contributed to the mixture. The result of that comparison is the DNA profile is approximately 4 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.

Q. Same item, the swab from the finger of the black glove found inside the house, was Mr. Rowland included as part of that mixture?

A. Under the same scenario, the DNA profile is approximately 5 times more likely if two unidentified, unrelated individuals contributed to the mixture than if

Nathaniel Rowland and an unidentified, unrelated individual contributed to the mixture.

Q. Thank you. There was also on 106.2.1, that's a hair from the same right-hand glove it appears. Is that right?

A. That is correct.

Q. Okay, and what was the result of the analysis of that hair?

A. The DNA profile was interpreted as single source. Scenario one is Samantha Josephson contributed the DNA profile versus scenario two, an unidentified, unrelated individual contributed the DNA profile. The result of that comparison is the DNA profile is approximately 6.7 septillion times more likely if Samantha Josephson contributed the DNA profile than if an unidentified, unrelated individual contributed the profile.

Q. Once again, that's corresponds with which level of support?

A. Our very strong support range.

Q. All right. Item 107.1 is a swab from a cuff of a black left-hand glove from the white plastic Family Dollar bag number two, correct?

A. That is correct.

Q. All right, and if you would tell the jury what your results were regarding Ms. Josephson on that glove found

in the Family Dollar bag?
A. The DNA profile was interpreted as a mixture originating from four individuals. The first scenario is Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture versus scenario two of four unidentified, unrelated individuals contributing to the mixture. The result of that comparison is the DNA profile is approximately 2.5 septillion times more likely if Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.
Q. Same item, what were your findings as it relates to Mr. Rowland?
A. The DNA profile is approximately 460,000 times more likely if Nathaniel Rowland and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.
Q. So in terms of the level of support, item 107.1, the left glove from the Family Dollar bag, the level of support of Ms. Josephson's inclusion is?
A. This falls into our very strong support range.
Q. And on that same item, the level of support for Mr. Rowland's inclusion?

A. This falls into our strong range.
Q. All right, I want to turn you to 108.2, page 39. What is that item?
A. These are swabs from the handles of a bag from item 108, which was the white plastic Family Dollar bag labeled number 1.
Q. Okay, and your results regarding Ms. Josephson on that Family Dollar bag item, swab?
A. The DNA profile was interpreted as a mixture originating from two individuals. The first scenario is Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus the scenario of two unidentified, unrelated individuals contributing to the mixture. The result of this comparison is the DNA profile is approximately 3.5 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.
Q. And again at the risk of repeating myself, the unidentified, unrelated individuals you referred to, again this could be somebody different than the ones we've talked about before, correct?
A. Yes, that is correct.
Q. Could be the same?

A. Yes, that is correct.
Q. No way to know, correct?
A. That is correct.
Q. All right, 108.3.1, that is page 39, I believe. Yes. What is that item?
A. This is a cutting from five wads of possible paper towels from miscellaneous contents removed from the bag from item 108, which was the white plastic Family Dollar bag labeled number 1.
Q. What was your first comparison that you did?
A. The profile was interpreted as a mixture originating from three individuals. The first scenario is Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus the scenario of three unidentified, unrelated individuals contributing to the mixture. The result of that comparison is the DNA profile is approximately 56 million times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.
Q. Same item. What were your results regarding Mr. Rowland?
A. The -- under the same circumstances, the DNA profile is approximately 22 times more likely if three

unidentified, unrelated individuals contributed to the mixture than if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture.

Q. All right. 108.3.2, cutting from a wad of paper towels from this Family Dollar, bag number 1. Is that right?

A. That is correct.

Q. All right, and again, what were your findings regarding Ms. Josephson and Mr. Rowland on that item?

A. The DNA profile was interpreted as a mixture originating from three individuals. The first scenario is Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus a scenario of three unidentified, unrelated individuals contributing to the mixture. The result of that comparison is the DNA profile is approximately 2.7 septillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Under the same scenarios involving Nathaniel Rowland, the DNA profile is approximately 3 times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to

the mixture.

Q. So regarding these items, the cuttings from paper towels from the Family Dollar bag number 1, both Mr. Rowland and Ms. Josephson are included in the mixture. Is that correct?

A. The statistic supports inclusion for both of these individuals.

Q. And in terms of the verbal scale for each?

A. For the statistic associated with Samantha Josephson, this falls within our very strong support range; for the statistic associated with Nathaniel Rowland, this falls within our weak range.

Q. Okay. 108.3.3, what is that item?

A. These are swabs from entire exterior as they were submitted of three gloves from miscellaneous contents removed from the bag from item 108, which was the white plastic Family Dollar bag number 1.

Q. Why does the description of the items say as submitted?

A. It -- sometimes it is difficult to tell with certain types of gloves which would be the inside and the outside. So, the way our forensic serologists process these items is they will say from the exterior as it was submitted instead of trying to determine which is the true exterior or interior of the glove.

Q. So, would that be common in the type of glove you're talking about? Like, say, well, like this kind of glove?

A. Yes, that is correct.

Q. Or the, or the blue plastic gloves of similar nature?

A. Yes.

Q. Okay. All right, and so in regards to the item here, 108.3.3 which is three gloves, what were your findings regarding the inclusion of Ms. Josephson and Mr. Rowland?

A. The DNA profile was interpreted as a mixture originating from three individuals. The first scenario is Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus the scenario of three unidentified, unrelated individuals contributed to the mixture. The result of that comparison is the DNA profile is approximately 2.2 septillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Under the same scenarios but involving Nathaniel Rowland, the DNA profile is approximately 5.2 quintillion times more likely if Nathaniel Rowland and

two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture

Q. So regarding those gloves, item 108.3.3, the level of support for the inclusion of Ms. Josephson and Mr. Rowland is what?

A. Both of these statistics fall in our very strong support range.

Q. All right. 108.3.5, interior as submitted of glove marked B from Family Dollar bag number 1, what did you find regarding Ms. Josephson?

A. The DNA profile was interpreted as a mixture originating from two individuals. The first scenario is Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus the possibility of two unidentified, unrelated individuals contributing to the mixture. The result of that comparison is the DNA profile is approximately 3.5 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.

Q. Thank you, and this might be the last of the gloves, 103.6, interior as submitted glove marked C from white Family Dollar bag, bag number 1. Is that right?

A. That is correct.
Q. Okay, and one more time regarding the gloves, how many profiles were in this mixture?
A. The DNA profile was interpreted as a mixture originating from four individuals.
Q. Was Ms. Josephson included in that mixture?
A. Under the scenarios of Samantha Josephson and three unidentified, unrelated individuals contributing to the mixture versus the scenario of four unidentified, unrelated individuals contributing to the mixture, the DNA profile is approximately 2.3 septillion times more likely if Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.
Q. And the level of support for her inclusion?
A. The statistic associated with our very strong support range.
Q. Same item, the glove from -- a glove marked C from Family Dollar bag number 1, was Mr. Rowland included in that item?
A. An uninformative statistical result was obtained; no conclusion can be made regarding Nathaniel Rowland as a possible contributor to the mixture under the list of propositions.

Q. No conclusion either way?
A. That is correct.
Q. All right, Agent DeWane, just a few more items. 128.3, that's on page 52 of your report. What is that item?
A. These are swabs from the interior of a Dollar General bag from item 128, which was a black bag from the trash can.
Q. And the results regarding Ms. Josephson?
A. The DNA profile was interpreted as single source. In the scenario of Samantha Josephson contributing the DNA profile versus the scenario of an unidentified, unrelated individual contributed the -- contributing the DNA profile, the result of that is the DNA profile is approximately 6.8 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual contributed the profile.
Q. Is it fair to say that you got the same result as it pertains to 128.4, swab from the interior IGA bag in the same, the same item?
A. That is correct.
Q. And the same result as well for 129.1, cutting from toilet paper from inside that trash can?
A. That is correct.

Q. Single source with Ms. Josephson, correct?
A. That is ---
Q. Very ---
A. --- correct.
Q. Very strong support?
A. That is correct.
Q. Turn your attention to 130.1.1, page 53, cutting from left side hem of tan shirt removed from Family Dollar bag number 2, correct?
A. That is correct.
Q. And was Ms. Josephson included in that mixture?
A. This DNA profile was interpreted as a mixture originating from two individuals. First scenario is Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus the scenario of it being two unidentified, unrelated individuals that contributed to the mixture. The result of that comparison is the DNA profile is approximately 4.1 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.
Q. What about for the same item about Mr. Rowland's inclusion on that tan shirt?
A. The DNA profile is approximately 13 times more

likely if two unidentified, unrelated individuals contributed to the mixture than if Nathaniel Rowland and an unidentified, unrelated individual contributed to the mixture.

So, just for clarification, this profile is 13 times more likely if the scenario were two unidentified, unrelated individuals contributed to it rather than if Nathaniel Rowland and an unidentified, unrelated individual contributed to this mixture.

Q. Same shirt, 130.1.2 is a swab from the scraping of the neck area -- swab from scraping the neck area of the same shirt, the tan shirt. Were you able to develop a DNA profile from that item?

A. Yes.

Q. And were you able to get any results?

A. Due to the complexity of the profile and the inability to determine a number of contributors, no further interpretation will be offered.

Q. 130.3, swab from a stain on open edge of the Family Dollar bag, bag number 2, is Ms. Josephson included in that profile?

A. This profile was interpreted as single source. The scenario one is Samantha Josephson contributed the DNA profile versus an unidentified, unrelated individual contributed the profile. The result of that comparison

is the DNA profile is approximately 6.8 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual contributed the profile.

Q. Fair to say that the same result for the swab on 130.4 from the interior of cardboard roll out of that Family Dollar bag, bag 2?

A. That is correct.

Q. I'd like to turn your attention to a couple of final items, and then I'll be done. Item -- let me jump back to your other report, very quickly to your second report. Item 125.1, what is that item?

A. These are swabs from the sole of the right shoe of a pair of pink, size 9K shoes from the closet underneath the stairs of Maria Howard's residence.

Q. And your results regarding Ms. Josephson's inclusion on that item?

A. The DNA profile was interpreted as a mixture originating from two individuals. The first scenario is Samantha Josephson and an unidentified, unrelated individual contributed to the mixture versus the scenario of two unidentified, unrelated individuals contributing to the mixture. The result of that is the DNA profile is approximately 3.5 septillion times more likely if Samantha Josephson and an unidentified,

unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture.

Q. Thank you. Make you jump back one last time to page 57 of your first report, item 131.1.1.1. What is that item?

A. This is a cutting from the right cuff of a shirt removed from item 131, which was the white plastic Family Dollar bag labeled number 3.

Q. I'm going to show you what's been marked or admitted into evidence, State's 329 into evidence. If you could look at the outside of the bag? What of your item number is that?

A. This is item number 131.1.

Q. And how does that pertain to the item that we are talking about there?

A. That would have been a parent item to this.

Q. A parent item. Can you again say what that means?

A. That means the original item as submitted, and then when we subitemize, that means that we're taking cuttings, swabs, or some part of that away.

Q. Okay. So this 131, which is State's 329, is the parent item. Is that correct?

A. That is correct.

Q. Okay. So, in your analysis of the cutting from

this item, what did you find in regards to Samantha Josephson being included or excluded?

A. The DNA profile was interpreted as a mixture originating from four individuals. The first scenario is Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture versus it being four unidentified, unrelated individuals that contributed to the mixture. The result of that comparison is the DNA profile is approximately 5.5 billion times more likely if Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.

Q. Same item. What were your findings regarding Mr. Rowland's inclusion?

A. For the same scenarios, the DNA profile is approximately 10 trillion times more likely if Nathaniel Rowland and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.

Q. Once again, the level of support for each of their inclusions?

A. Both of these statistics are associated with our very strong support range.

Q. Thank you. Same item, parent item 131, there was

on your item 131.1.1.2 is a swab from a scraping of the neck area. Is that right?

A. That is correct.

Q. What were your results regarding that interpretation?

A. The DNA profile developed is a mixture of at least five individuals. Due to the complexity of this mixture, no further interpretation will be offered.

Q. Okay, and 131.1.2, what is that item?

A. This is 131.1.2.1. This is a cutting from the left thigh area of pants removed from item 131, which is a white plastic Family Dollar bag labeled number 3.

Q. I believe that's the same bag here as in State's 329, correct?

A. That is correct.

Q. All right, and it was a pair of pants, you said?

A. That is correct.

Q. Okay. What was your result regarding Ms. Josephson on that item?

A. The DNA profile was interpreted as a mixture originating from three individuals. The first scenario is Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus a scenario of three unidentified, unrelated individuals contributing to the mixture. The result of that

comparison is the DNA profile is approximately 3.1 septillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. And regarding Mr. Rowland?

A. Under the same scenarios, the DNA profile is approximately 55 times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. Thank you. All right, last item. This is item 104. What are the item numbers that you reviewed in your report regarding 104? Is it 104.1, .2 and .3?

A. 104.1, 104.2, 104.3.1, and that's -- yeah, that's correct.

Q. All right. I'm going to show you what has been introduced into evidence already as State's 295. Is that the parent item of 104?

A. Yes, that is correct.

Q. Okay. So, the analysis we're about to discuss, is it fair to say that all of that pertains to this item?

A. Yes.

Q. All right. What is item 104.1?

A. These are swabs from serrated blade of camo-colored

multi-tool from the white plastic Family Dollar bag labeled number 2.

Q. Okay, you said swabs from the serrated blade?

A. That is correct.

Q. All right, and what was your conclusion regarding Ms. Josephson as it pertains to this serrated blade on item 104?

A. The DNA profile was interpreted as single source scenario. Scenario one is Samantha Josephson contributed the DNA profile versus scenario two, an unidentified, unrelated individual contributed, contributed the DNA profile. The result of that comparison is the DNA profile is approximately 6.9 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual contributed the profile.

Q. And the level support for that?

A. This statistic falls in our very strong support range.

Q. Okay. Two more related to that, correct?

A. That is correct.

Q. 104.2. Is that right?

A. Yes.

Q. What is that?

A. These are swabs from the inner edges of handles of

camo-colored multi-tool from the white plastic Family Dollar bag labeled number 2.

Q. Inner edges of handle, you said?

A. That is correct.

Q. Okay, and what did your analysis reveal regarding Ms. Josephson's inclusion on the inner handles of this item?

A. The DNA profile was interpreted as a mixture originating from three individuals. Scenario one is Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus scenario two, where three unidentified, unrelated individuals contributed to the mixture. The result is the DNA profile is approximately 2.6 septillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. So, the level of support for Ms. Josephson's inclusion of the mixture on this handle is what?

A. This falls within our very strong support range.

Q. Same line of questions regarding Mr. Rowland on this handle.

A. Under the same scenarios, the DNA profile is approximately 49 times more likely if Nathaniel Rowland

and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. Included or ---

A. This ---

Q. --- excluded?

A. This DNA profile is 49 times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. And that falls under your weak level of support, correct?

A. That is correct.

Q. Now in regards to the handle, as we just discussed, did you do additional testing? Specifically, earlier we talked about Y-STR methodology. Did you do Y-STR examination of this item?

A. I did.

Q. And what was the result of your analysis regarding the handle from a Y-STR standpoint?

A. The Y-STR profile developed is a mixture of at least two male individuals. Xavier McFadden, Marcus Duane Williams, Osharmar Williams, and Derod Fleming are excluded as possible contributors. The partial Y-STR

profile of the major contributor to this mixture is from unidentified male individual B.

The partial Y-STR profile, profile of the minor contributor to this mixture matches the Y-STR profile of Nathaniel Rowland. The probability of randomly selecting an unrelated male individual having a Y-STR profile matching the minor contributor to this mixture is approximately 1 in 59. Paternal male relatives of Nathaniel Rowland may not be excluded as the minor contributor to this mixture.

Q. All right. So, for the Y-STR analysis of the handle, it's a mixture, correct?

A. That is correct.

Q. And the major contributor could not be identified?

A. That is correct.

Q. And in regards to the minor contributor, what are you saying again regarding Mr. Rowland as the minor contributor?

A. The partial Y-STR profile of the minor contributor to this mixture matches the Y-STR profile of Nathaniel Rowland.

Q. And lastly, 104.3.1, what is that?

A. This is a hair from the camo-colored multi-tool from the white plastic Family Dollar bag labeled number 2.

Q. Okay, a hair? I'm sorry, a hair from the same item?

A. That is correct.

Q. Okay, and what was your finding regarding Ms. Josephson's inclusion in the hair found on item 104?

A. The DNA profile was interpreted as single source. Scenario one is Samantha Josephson contributed the DNA profile versus scenario two, where an unidentified, unrelated individual contributed the DNA profile. The result of that comparison is the DNA profile is approximately 6.8 septillion times more likely if Samantha Josephson contributed the profile than if an unidentified, unrelated individual contributed the profile.

Q. And the level of support for that?

A. This statistic falls in our very strong support range.

MR. GOLDBERG: Agent DeWane, thank you very much. Those are all of my questions.

THE COURT: Ladies and gentlemen, we'll take about fifteen minutes. Please do not discuss the case.

(THE JURY EXITS AT 4:24 P.M.)

THE COURT: You may step down during the break. Please do not discuss your testimony with anyone.

And fifteen minutes it will be.

(OFF THE RECORD.)

THE COURT: Bring the jury.

(THE JURY ENTERS AT 4:42 P.M.)

THE COURT: Very good. Cross-examination.

MS. PINNOCK: Thank you, Your Honor. If it please the court?

THE COURT: Yes.

CROSS-EXAMINATION BY MS. PINNOCK:

Q. Good afternoon, Agent DeWane. Is it agent? Ms.?

A. Agent is fine.

Q. Agent, okay. Agent DeWane, how are you?

A. Good. How are you?

Q. I'm good. All right, so now you just testified about a whole bunch of items. I'm going to try not to go back through everything, but I can't promise. I want to back up, though, to when you first got involved with this case. That was back in March of 2019, right?

A. That is.

Q. And do you recall the first day that an item was submitted to you for testing?

A. This was on March 30 of 2019.

Q. March 30, 2019. Do you have all of your, I guess, supplemental reports, or do you just have the report from December and June?

A. I just have the latter two.

Q. Okay.

MS. PINNOCK: Your Honor, if I may approach?

THE COURT: Yes.

BY MS. PINNOCK:

Q. I just handed you your report dated March 30, 2019, correct?

A. That is correct.

Q. And you had a number of supplemental reports after that, right?

A. That is correct.

Q. And that's because there was a large volume of items submitted for testing, and you kind of updated as you went?

A. That is correct.

Q. So, I think we had, what, a total of seven or so different report installments?

A. I received evidence on eight different days.

Q. Do you have those days?

A. I do.

Q. Can you tell us what they are, please?

A. The first date was March 30 of 2019 and April 1 of 2019, April 3 of 2019, April 4 of 2019, April 15 of 2019, April 18 of 2019, August 9 of 2019, and June 29 of 2021.

Q. Thank you. Now, if you look back at your -- you

know, what was submitted to you on March 30, you were provided with three items to compare on that day, correct?

A. That is correct.

Q. And you, you received a buccal swab from Ms. Josephson?

A. I apologize. I received five items.

Q. Five, okay. One of those items was a buccal swab for Ms. Josephson?

A. That is correct.

Q. Another one was a swab from a left shoe, and black and white shoes?

A. That is correct.

Q. And a third one was a swab from the rear driver side interior panel?

A. That is correct.

Q. And you said you received the items on the 30th, and you issued your report on the 30th, correct?

A. That is correct.

Q. And that request came from who? Do you recall?

A. I got the phone call from a SLED agent.

Q. Do you remember which one it was?

A. I do not recall off the top of my head.

Q. Well, let me ask you this. Is it common practice or just is it common for your department to be able to

turn around on testing, peer reviews, and issuing reports within a number of hours?

A. Yes. It depends on the number of items and the type of items.

Q. And sometimes it takes months. Is that fair?

A. That is correct.

Q. But there are times also that special requests can come from law enforcement or by order of the court to prioritize to try to get the testing done more quickly, right?

A. More efficient -- efficiently, yes.

Q. Yes, ma'am, and I'm not trying to suggest that you aren't -- you know, that your department doesn't work efficiently. There's only so many hours in the day. People are giving you hundreds of items to test. Don't y'all receive items from all over the state?

A. Yes, we do.

Q. And sometimes there can be a backlog?

A. Yes, that is correct.

Q. But y'all work as quickly as you can, as efficiently as you can to try to get to each and every task as it comes in, right?

A. That is correct.

Q. Now, you said your second -- I'm sorry, the third report you issued was around April 18?

A. I apologize. I do not have the dates of the reports.

MS. PINNOCK: Your Honor, if I may?

A. Yes, this report is dated April 18 of 2019.

Q. And on this report, we see for the first time that items 17 and 18 are listed, correct?

A. That is correct.

Q. And again that's April 18 of 2019?

A. Yes, that is correct.

Q. All right, and we'll come back to items 17 and 18 in just a minute. But like you said, throughout the next couple of months, even years, you know, you did the testing. You put it through the peer review. You issued your reports as efficiently as possible so you could get reports done.

A. That is correct.

Q. And when you finish your report, do you personally hand it to the investigator?

A. Not typically, no.

Q. Where do you typically upload your report to?

A. We had a internal laboratory management system called the BEAST, and that is where our reports are written and published.

Q. And so an investigator at SLED would have access to that database?

A. Yes, once the report is published.
Q. And they can access it at any time after you've published it?
A. Yes, that is correct.
Q. And they would not have to contact you for any special login? They can go get it themselves?
A. As far as I understand, yes.
Q. And it's not your responsibility to track down an investigator to tell them, hey, my report's finished. You submit it, you upload it, it's published, and your job there is complete, right?
A. That is correct.
Q. All right. Now, do you have your December 5 report?
A. I do.
Q. All right. So, I'd like to start first just going over some things that were found and that you processed inside the vehicle. But first you were discussing with Mr. Goldberg the different ways that DNA can be transferred from one item to another. One of those ways is just by simply touching something, right?
A. That is correct.
Q. If you sneeze, you can transfer your DNA that way if you don't cover your mouth?
A. Yes, that is correct.

Q. You said blood is a very strong indicator of, you know, DNA transfer?
A. Yes.
Q. And skin cells? I guess that's the same thing as touch. Is that right?
A. What is the question?
Q. Skin cells, transferring skin cells?
A. Yes.
Q. So transfer DNA, am I correct in saying that DNA can transfer from one item to another without the person having direct contact with that originating source? Does that make sense?
A. Yes, that is possible.
Q. So, for example, if there was blood in the back of a car and I touch that blood, that DNA would transfer from that item to the person that touched it?
A. Yes. If the blood is wet, then yes.
Q. And if there are other items in the car that come in contact with blood, the blood can transfer from one to the other?
A. Yes, that is correct.
Q. You can also transfer DNA by, you know, if somebody owns a sweatshirt. You wear the sweatshirt, it's safe to assume that your DNA is going to be on that sweatshirt?

A. Yes. It is possible that your DNA will be on that sweatshirt.
Q. If I -- if somebody owns a car and you drive the car, is it very likely your DNA is going to be on the steering wheel?
A. It is possible that your DNA would be on the steering wheel.
Q. Is it possible your DNA will be on the gearshift?
A. Yes, that is possible.
Q. All right. So, I'd like you to look at item 3 for me on page 4. Item 3 was one of the first things you said were give -- was given to you on March 30?
A. That is correct.
Q. And the swab was labeled from rear, rear driver door side interior panel, correct?
A. That is correct.
Q. And when you ran this sample, correct me if I'm wrong, but you did not have a known sample from Mr. Rowland at that point, right?
A. That is correct.
Q. But on March 30, the presumptive test for blood was positive?
A. Yes, that is correct.
Q. And your result was interpreted that there was a strong likelihood that Ms. Samantha Josephson was a

potential contributor?
A. The statistic associated with Samantha Josephson fell in our very strong support range.
Q. And that was on March 30?
A. Yes, that is correct.
Q. And then on April 5, that's when you received the known sample from Mr. Rowland, correct?
A. I received the known standard from Nathaniel Rowland on April 3 of 2019.
Q. Okay, April 3, but on the April 5 report that you issued, that's when you indicated that Nathaniel Rowland was excluded from that sample as a possible contributor, correct?
A. I don't -- I can't confirm the date, but yes, I can confirm that result.
Q. Give me one second.
(A PAUSE.)
A. Yes, for the report issued on April 5 of 2019, the result regarding Nathaniel Rowland for item 3 was that he was excluded as a possible contributor.
Q. And just so we're clear, the profile that you interpreted for item 3 -- yeah, for item 3 originated from two individuals?
A. That is correct.
Q. So, we know Nathaniel Rowland is excluded, right?

A. Yes, that's correct.
Q. You were able to exclude also everybody else you have a known sample for, correct?
A. Yes, that is correct.
Q. So, there's an unidentified profile mixed with Ms. Josephson's profile on that swab?
A. Yes, that is correct.
Q. Now, I'd like you to turn your attention to item 22. It's on page 14.
A. Thank you.
Q. I'm sorry, it's 22.1. This item is listed as the envelope, swab from stain below address window in item 22?
A. That is correct.
Q. And for this particular item, you also got a mixture of two individuals?
A. Yes, that is correct.
Q. And your proposition is that it's -- there's a strong likelihood, 3.7 septillion times more likely if Samantha Josephson was a contributor?
A. The statistic associated with Samantha Josephson as a possible contributor falls in our very strong support range.
Q. Yes, ma'am, and that number is 3.7 septillion times more likely?

A. Yes.
Q. And under -- for this item, Nathaniel Rowland is also excluded, correct?
A. Yes, that is correct.
Q. And you've excluded everybody else that you had known profiles for?
A. Yes, that is correct.
Q. So, it's Samantha Josephson mixed with an unidentified person?
A. Yes.
Q. Now, if you'd look over on page 15 at item 22.2, it's of another swab taken from this envelope, swab from the upper edges of item 22.2, correct?
A. That is correct.
Q. And on this swab, we had a mixture of three individuals?
A. Yes, that is correct.
Q. And the DNA profile is approximately 42 billion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture?
A. Yes, that is correct.
Q. So, a very strong probability that Ms. Josephson was present?

A. A very strong statistic associated with her possible inclusion.

Q. And you testified that you did a -- you know, you created a proposition for Mr. Rowland also?

A. Yes.

Q. Mr. Rowland is not included in this mixture of three, correct?

A. The result of this is the DNA profile is approximately four times more likely if three unidentified, unrelated individuals contributed to the mixture than if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture. So, this DNA profile is four times more likely to have occurred if the second scenario where Nathaniel Rowland is not included as a contributor occurred.

Q. Okay. It's more likely if Nathaniel Rowland is not a contributor?

A. That is correct.

Q. Okay, and you came to that same conclusion for Xavier McFadden? It's more likely if he is not a contributor, correct?

A. That is correct.

Q. You came to that conclusion with Duane Williams? It's more likely that he is not a contributor?

A. That is correct.

Q. You came to that conclusion as far as Maria Howard goes? She is not a contributor?
A. It is trending toward exclusion, yes.
Q. And then under the last proposition, you have excluded Osharmar Williams and Derod Fleming, correct?
A. That is correct.
Q. So with this particular swab, we have Samantha Josephson and two unidentified people in this mixture?
A. That is correct.
Q. All right. Please look at item 38. I'm sorry, 38.1. It's on page 18. This, this particular swab is a mixture of at least five people?
A. Yes, that is correct.
Q. And you testified that anything over four, you cannot run an analysis on?
A. Yes, that is correct.
Q. How many DNA profiles does each person have? One, one per person, right?
A. Yes, that is correct.
Q. And the same thing as far as item 39.1, there were five profiles identified, so you could not do any more testing?
A. Yes, that is correct.
Q. But we know there were five?
A. Yes.

Q. Now, item 45.1 that's down at the bottom of this page, it is labeled as swabs from the right sleeve near cuff of black jacket, Robert Comstock size extra large, from rear passenger seat of the Chevy Impala. You were able to identify profiles on this item as well, correct?
A. That is correct.
Q. And the profile is a mixture of two individuals?
A. Yes, that is correct.
Q. And Samantha Josephson's likelihood of being a contributor to this mixture is pretty strong, right?
A. Yes. The DNA profile is 3.7 time -- septillion times more likely.
Q. That it's her and one individual, one -- another person contributing to the mixture?
A. That is correct.
Q. And Nathaniel Rowland is excluded from being that second person, correct?
A. That is correct.
Q. And you excluded everybody else you had known samples for with this particular item?
A. Yes, that is correct.
Q. So, it's Samantha Josephson and an, and an unidentified person that we don't know?
A. That is correct.
Q. Now on item 45.2, swabs from the upper right and

lower left areas of the black jacket, same black jacket that was found in the passenger -- rear passenger seat of the Chevy Impala. This is a mixture -- this profile was a mixture of three individuals?

A. That is correct.

Q. Samantha Josephson had a very strong -- it was approximately 2.7 septillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture, correct?

A. Correct.

Q. Than if it was unidentified ---

A. Three unidentified, yes.

Q. And under -- with this item, the swabs from the right and left side of the jacket, Nathaniel Rowland is excluded, right?

A. That is correct.

Q. And you excluded everybody else that you had known samples for?

A. Yes, that is correct.

Q. So, it's Samantha Josephson mixed with two other people that we don't know?

A. Yes. That's the -- what the statistic implies.

Q. And when you look at 45.3, that's another -- the scraping from the interior neck area of the same black jacket that was found in the back seat of the car?

A. Yes, that is correct.
Q. It's a mixture of at least five?
A. Yes.
Q. So, you could not do any testing on that?
A. That is correct.
Q. Can you turn to page 24, please, item 62? This is the steering wheel of the Chevy Impala, correct?
A. That is correct.
Q. And this is a mixture of three people?
A. Yes.
Q. And the first profile that you did involved -- included Nathaniel Rowland as a possible contributor, contributor?
A. Yes.
Q. And it was approximately 970 billion times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture?
A. The DNA profile was approximately 970 billion times more likely if that were the case, yes.
Q. Versus it being three unknown people?
A. Yes, that is correct.
Q. And then you ran the proposition for Maria Howard?
A. Yes.
Q. And she had a pretty strong supported proposition for being included on that swab as well, right?

A. Yes. The statistic associated with Maria Howard was in our very strong support range.
Q. And having DNA of two individuals who were driving a vehicle show up on a steering wheel is not uncommon, correct?
A. That is correct.
Q. There were three individuals in the mixture, right?
A. That is correct.
Q. And so everybody else that you had a sample for, including Samantha Josephson, was excluded from that mixture?
A. Yes, that is, correct.
Q. So, it's very likely that Nathaniel Rowland, Maria Howard, and somebody that we don't know?
A. That is correct.
Q. Now, I'd like for you to look over on page 26 at item 63. This is the swabs from the gear shift of the Chevy Impala. This was a mixture of four, correct?
A. That is correct.
Q. And under this proposition, it's 300 -- it was approximately 390 billion times more likely that Samantha Josephson contributed to the DNA mixture than if it was -- sorry -- contributed to the DNA mixture and three other people versus it being four unidentified people?

A. It was 390 billion times more likely to see this DNA profile if that were the scenario, yes.
Q. Okay, and 150 billion times more likely to see this scenario involving Nathaniel Rowland?
A. That is correct.
Q. Maria Howard was only at a 27, 27 times more likely in this scenario if it was her and two other unidentified people?
A. The DNA profile is approximately 27 times more likely if Maria Howard and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.
Q. So, statistically you can't say that she's not there? She's just considered a weak support?
A. That is correct.
Q. Okay. You did a proposition for Xavier McFadden, another known sample that you had?
A. Yes.
Q. And you found that it was 4 times more likely if four unrelated people contributed to the mixture versus Xavier McFadden being in that mixture with three other people, right?
A. That is 4 times more likely to see this DNA profile if that's the case, yes.

Q. And then you excluded Marcus Williams, Osharmar Williams, and Derod Fleming?
A. Yes, that is correct.
Q. So, there's still one profile that's on the gearshift of this car that we don't know who it belongs to, correct?
A. Yes, that is correct.
Q. Can you look at item 64 for me, please? It's on page 28, the next page. The exterior door handle of the rear passenger side, that is a mixture of three individuals?
A. That is correct.
Q. It's approximately 140 quadrillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture?
A. Yes. The statistic always applies to the DNA profile occurring. So, it is 140 quadrillion times more likely to see this profile if that is the case.
Q. Yes, ma'am. You do the same thing for Mr. Rowland. It was 9 -- 9100 times more likely to see Nathaniel Rowland in that combination?
A. That is correct.
Q. Maria Howard, it was approximately 2 times more

likely that she would be in that scenario?
A. It's 2 times more likely to see the DNA profile, yes.
Q. Yes, ma'am.
MS. PINNOCK: Beg the court's indulgence.
(A PAUSE.)
BY MS. PINNOCK:
Q. Okay. Now, please look over to item number 72. It is on page -- oh, I believe that's in your June report. Is that right?
A. That is correct.
Q. That's a swab that was done from the rear passenger seat of the Chevy Impala?
A. That is correct.
Q. It was presumptive blood?
A. Yes, that is correct.
Q. The profile that you developed was a combination of two individuals?
A. Yes.
Q. Nathaniel Rowland is not one of those individuals?
A. That is correct. He was excluded.
Q. And, in fact, outside of Ms. Josephson's profile, you excluded every other individual you had a known sample from?
A. Yes, that is correct.

Q. So, it's Ms. Josephson's profile mixed with somebody that we don't know?
A. Yes.
Q. And can you look at item 76, please, swab from the rear driver side seat of the Chevy Impala? Mr. Rowland is not a contributor in that one either, correct?
A. That is correct.
Q. Okay. Now I'm going to take you back to the December report. I apologize for skipping around on you. Talking about some of the items that were found over at the Mountainbrook address. I'm going to start with item 104, and that would be on page 32 of the December report. So, you did a -- you, you received a swab from the serrated blade, correct?
A. That is correct.
Q. Mr. Rowland's profile is not on that blade, correct?
A. That is correct.
Q. And there's a second swab that was, that was turned in to you, swabs from the inner edges of handle of camo tool -- camo-colored multi-tool, excuse me, from the white plastic Family Dollar bag, bag number 2?
A. Yes, that is correct.
Q. That is a mixture of three individuals?
A. Yes.

Q. Samantha Josephson has a high -- a strong support probability of being included?

A. The statistic associated with Samantha Josephson falls in our very strong support range.

Q. Yes, ma'am, and that number that was assigned to, to that is 2.6 septillion?

A. That is correct.

Q. And then you did the same set up for Mr. Rowland, Mr. Rowland and two unidentified, unrelated individuals versus it being three unidentified, unrelated individuals, correct?

A. Yes, that is correct.

Q. And your result for that one was the DNA profile is approximately 49 times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture?

A. Yes, than if three unidentified, unrelated individuals contributed to the mixture.

Q. So, there is a significant difference, wouldn't you agree, between 2.6 septillion and 49?

A. Yes, I agree.

Q. Okay, and 49 is on your verbal scale, you said, considered weak?

A. Yes. That falls in our weak support range.

Q. And you did some -- there is an extra step with the

Y-STR profile development, correct?
A. Yes, that is correct.
Q. And you had testified earlier about, you know, a major contributor and minor contributor. The major contributor you said leaves more DNA. There's, there's a large -- there's more information for that individual profile that's available. That why it's considered major?
A. Yes, that is correct.
Q. Okay, and the minor is whatever's left?
A. For a two-person mixture, it's whatever is left.
Q. Okay, and the major contributor on item 104.2 for the Y-STR profile is unidentified male individual B, correct?
A. Yes, that is correct.
Q. Okay. You said the minor contributor you're attributing to Nathaniel Rowland, right?
A. Yes.
Q. But a little bit further down, you said the probability of randomly selecting an unrelated male individual having a Y-STR profile matching the minor contributor to this mixture is approximately 1 in 59?
A. Yes, that is correct.
Q. Am I correct in saying that's 1 in every 59 people or men, 1 in every 59 men?

A. No. This is a statistic that is -- it is an accounting method, and so we have a database that has a specific number of people. And basically each location of DNA is counted how many times it appears in that database, given the total amount of people, and then it is multiplied together through the products rule to get a final probability.

Q. Okay, but you have him listed as a minor contributor, right?

A. That is correct.

Q. All right, and again, the major is an unidentified male B?

A. Yes, that is correct.

Q. Can you look at item 107.1, please? That is on page 36. This is a swab from the cuff of a black left-hand glove from inside of the Family Dollar bag, correct?

A. Yes, that is correct.

Q. This particular swab has a mixture of four individuals, correct?

A. Yes, that is correct.

Q. And again, each person, each human being only has one DNA profile. So, we're dealing with four different people?

A. Yes, that is correct.

Q. So this particular sample, you, you had a combination of Samantha Josephson and three unrelated individuals, correct?

A. Yes, that is correct.

Q. And when you were -- when you considered whether or not that scenario was likely, the DNA profile was approximately 2.5 septillion times more likely if Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture than if it was four unknown or unidentified, unrelated individuals, correct?

A. That is correct.

Q. And you also testified that Mr. Rowland, Nathaniel Rowland's profile, it was possible -- 460,000 times more likely if Nathaniel Rowland contributed in that same scenario?

A. Yes, to see that DNA profile.

Q. And you did that same scenario for Maria Howard?

A. That is correct.

Q. And hers was approximately 4 times more likely in the Maria Howard plus three unknown scenario?

A. Yes, that is correct.

Q. And then everybody else that you had a known sample for was excluded, correct?

A. Yes, that is correct.

Q. So, there's an unknown, unidentified person involved in this profile?
A. Yes, that is correct.
Q. And you testified -- I just want to back up for a second. When you get your swabs from serology, is there a picture or any sort of photograph of where they took the cutting from or anything like that?
A. I do not look at these pictures, but I think that it is in our protocol. I'm not actually a hundred percent sure, but I know at times they take pictures and other times they do not.
Q. Okay, but the swab from 107.1 was the swab from the cuff of a black left glove, right, left-hand glove?
A. Yes, that is correct.
Q. All right. Now on the next -- on that same page, item 108.1, swab from the bottom crease on exterior of bag from item 108 -- and item 108 is a Family Dollar bag?
A. Yes.
Q. Correct?
A. That is correct.
Q. And this is a mixture of two individuals, correct?
A. Yes, that is correct.
Q. And the scenario, scenario number one, proposition set one, Samantha Josephson plus an unidentified person

contributing to the mixture, right?
A. Versus two unidentified, unrelated ---
Q. Yes.
A. --- individuals.
Q. Yes.
A. Yes.
Q. And you said it was approximately 3.9 septillion times more likely that this combination with Samantha Josephson and an unknown, 3.9 septillion times more likely than if it was two unknowns?
A. It was 3.9 septillion times more likely to see this DNA profile if the scenario involving Samantha Josephson occurred rather than if the scenario not including Samantha Josephson occurred.
Q. And then Nathaniel Rowland is excluded?
A. That is correct.
Q. So, this combination of 108.1 is Samantha Josephson plus somebody that we don't know?
A. That is correct.
Q. Item 108.2, swab from the handles of the bag from -- I apologize. Swab from handles of bag from 108, which is identified as a white plastic Family Dollar bag, bag number 1, right?
A. Yes, that is correct.
Q. Nathaniel Rowland is not a contributor to this

mixture either?
A. That is correct.
Q. And it's a mixture of two people?
A. Yes, that is correct.
Q. You excluded every single person that you had a known sample for except Samantha Josephson, correct?
A. Yes, that is correct.
Q. So, the proposition that it's a combination of Samantha Josephson plus an unknown, unidentified -- unrelated, unidentified person versus it being two unidentified people, it's more likely -- it's 3.5 septillion times more likely that it's Samantha Josephson plus one more?
A. It's 3.5 septillion times more likely to see the DNA profile if scenario one with Samantha Josephson is true than if scenario one occurred.
Q. Yes, ma'am, and we know that Nathaniel Rowland is not that second person?
A. That is correct. He is excluded.
Q. Item 108, 108.3.1 on the bottom of that same page, cutting from five wads of possible paper towels from miscellaneous contents removed from bag, item 108, correct?
A. That is correct.
Q. A mixture originating from three people?

A. Yes, that is correct.
Q. Proposition one: Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture versus -- sorry, versus three unidentified, unrelated individuals contributing to that mixture?
A. Yes, that is correct.
Q. And it's 56 million times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to that mixture versus it being three unidentified people?
A. The DNA profile is approximately 56 million times more likely if that occurs, yes.
Q. And you did the same scenario with Xavier McFadden, one of your known samples?
A. Yes.
Q. And your conclusion for that combination was the DNA profile is approximately 32 times more likely if three unidentified, unrelated people contributed to the profile versus if it's Xavier McFadden and two unidentified people?
A. Yes, that is correct.
Q. You did the same set up for Nathaniel Rowland?
A. Yes, that is correct.
Q. And for him, the conclusion was the DNA profile is approximately 22 times more likely if it was three

unidentified, unrelated individuals contributing to the profile versus if it was Nathaniel Rowland and two unidentified people?

A. Yes, that is correct.

Q. It's more likely it's somebody else, in layman's terms?

A. That is correct.

Q. And you were able to ex -- or rule out, I should say, not necessarily say exclude but rule out everybody that you had a known sample for except for Marcus Williams as a possible contributor, correct?

A. I wouldn't use that wording.

Q. Okay. I'm sorry. I'm not trying to put words into your mouth. You were not able to get a strong support likelihood for any other person that you had a known sample for with this scenario?

A. For inclusion?

Q. Yes, ma'am.

A. That is correct.

Q. Okay, and I apologize, but I am not a scientist. Will you look at 108.3.2, please? Cutting from -- it's on page 42, cutting from one wad of possible paper towels from miscellaneous contents removed from the bag from item 108, the Family Dollar bag, bag number 1. This was a mixture of three people, three individuals in

the profile, correct?
A. That is correct.
Q. With the combination -- or the scenario of Samantha Josephson and two unidentified individuals versus three unidentified individuals, your conclusion was that it is 2.7 septillion times more likely if Samantha Josephson and two unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture, correct?
A. It is 2.7 septillion times more likely to see this DNA profile if that is the case.
Q. And you ran that same scenario for Nathaniel Rowland?
A. Yes.
Q. And the -- your results for that one were it's approximately 3 times more likely, 3 times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture, correct?
A. The DNA ---
Q. For -- sorry. Go ahead.
A. The DNA profile is approximately 3 times more likely if that is the case, yes.
Q. And that is considered a weak support for inclusion, right?
A. Yes. The statistic falls in our weak support

range.
Q. Even with that weak support, isn't it true there this still a profile in this mixture that you were unable to, to find -- you were not able to include any of the other known profiles to this mixture?
A. Yes, that is correct.
Q. So, there's an unidentified profile in this mixture?
A. Yes, that is correct.
Q. Item 1-0 -- 108.3.4, the swabs from the interior as submitted of glove marked A from the miscellaneous contents from the bag from item 108, which again is a Family Dollar bag, bag number 1, right?
A. That is correct.
Q. Now, Mr. Goldberg asked you, you know, when you have -- well, you were explaining when you have a glove like this, sometimes when you get it, you know, in a trash bag or something, you don't know which, which part is the inside, which part is the outside?
A. That's correct.
Q. And that's why it's listed as submitted, right?
A. Yes, that is correct.
Q. But isn't it true that, you know, if this glove was sitting here on the ground and I just picked it up to throw it away, my DNA could get on that glove, right?

A. Yes, that is possible.
Q. But on the glove that you got the swabs from, there are three individuals in the profile, right?
A. This is for item 108.3.4?
Q. Yes, ma'am.
A. Yes. It was interpreted as a mixture originating from three individuals.
Q. Bear with me. I Lost my place.
MS. PINNOCK: Beg the court's indulgence.
(A PAUSE.)
MS. PINNOCK: Okay. I apologize for that. I got lost in the report.
BY MS. PINNOCK:
Q. So, 108.3.4, yes, ma'am, glove marked A from miscellaneous contents, a mixture of three individuals and under the proposition for glove A, Nathaniel Rowland is excluded as a contributor?
A. Yes, that is correct.
Q. But there is a mixture of three individuals?
A. Yes, that is correct.
Q. You excluded every other known sample that you had other than the possibility of Samantha Josephson being present, right?
A. Yes, that is correct.
Q. 108.3.5, glove marked B. Again, interior as

submitted because y'all don't know, right?
A. That is correct.
Q. Nathaniel Rowland is excluded?
A. Yes.
Q. Every other known sample that you have other than Samantha Josephson is excluded?
A. Yes, that is correct.
Q. But this is a mixture of two individuals?
A. Yes.
Q. So, it's Samantha Josephson plus somebody that we don't know?
A. Yes, that is correct.
Q. I want to go back to the glove for just a second. Now assuming, because we don't know, if somebody has your hand -- I will try that again. If somebody were to put their hand in this glove -- I apparently cannot get my hand in this glove. Let's imagine that somebody had their hand inside of the glove, right? You would assume that there is -- there's a possibility I'm going to leave my hand -- my hand -- my DNA inside of that glove, right?
A. Yes.
Q. And if I happened to have somebody else's DNA on my hand and I put my hand inside of that glove, there's a good chance I'll leave that person's DNA inside of that

glove, too, right?
A. Yes, that is possible.
Q. And that -- that's an example of transfer DNA?
A. Yes.
Q. The DNA was transferred to me, and I transferred it to somebody else?
A. That is correct.
Q. All right. So, can you please look item 108.3.6, please? This is listed as swabs from the interior as submitted of glove marked C from miscellaneous contents removed from the Family Dollar bag, bag one, right?
A. That is correct.
Q. This is a combination of four profiles?
A. Yes.
Q. So, four different people?
A. That is correct.
Q. And Samantha Josephson, you put -- you have the scenario Samantha Josephson plus three unidentified, unrelated individuals versus it being four unidentified, unrelated individuals?
A. That is correct.
Q. And for that scenario, the DNA profile is approximately 2.3 septillion times more likely if Samantha Josephson and three unidentified, unrelated individuals contributed to the mixture than if four

unidentified, unrelated individuals contributed to that mixture, correct?

A. Yes, that is correct.

Q. So, it's pretty strong support that her profile is included in that mixture?

A. Yes.

Q. And you did the same for Mr. Rowland, Nathaniel Rowland, correct?

A. That is correct.

Q. And we have no conclusion on that, right?

A. That's correct. An uninformative statistical result was obtained. No conclusion can be made regarding Nathaniel Rowland as a possible contributor to this mixture under the listed propositions.

Q. And Mr. Goldberg asked you if it was possible for -- you know, the DNA could be there. Is that possible? You just don't know statistically?

A. Yes. No conclusions can be made.

Q. Isn't it also true that it's possible his DNA is not there?

A. Yes, that's possible.

Q. Will you look item 128.1.1, please? That's on page 48. That's the cuttings from towels from miscellaneous contents removed from the bag, bags of item 128, the black, black trash bag from trash can?

A. That is correct.
Q. And you developed a profile of two people being involved -- included?
A. Yes.
Q. Samantha Josephson and her, her scenario, Ms. Josephson and two unrelated individuals -- oh, I'm sorry. Samantha, Samantha Josephson and one unrelated individual, right?
A. That is correct.
Q. Versus two unrelated individuals?
A. Yes.
Q. And it's 3.9 septillion times more likely if the scenarios involves Samantha Josephson and that one unrelated person?
A. The DNA profile is approximately 3.9 septillion times more likely if that is the case, yes, rather than if it -- two unidentified, unrelated individuals contributed to the mixture.
Q. Yes, ma'am, and Nathaniel Rowland, when you put him in that scenario, he's excluded?
A. That is correct.
Q. Along with everybody else you had known profiles for, correct?
A. That is correct.
Q. So this combination of Samantha Josephson plus

somebody that we don't know?
A. That is correct.
Q. Would you please look at item 128.2, swabs from the open edge of black trash bag and handles of two interior bags from items 128, which is the black bag that was inside the trash can? This is a mixture of three people, correct?
A. That is correct.
Q. The first scenario you ran included Ms. Josephson and two unrelated people versus three unrelated people, right?
A. That is correct.
Q. And it was 10 times more likely if Samantha Josephson and two unidentified, unrelated people contributed to this particular profile?
A. It is 10 times more likely to see this DNA profile if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture rather than if three unidentified, unrelated individuals contributed to the mixture.
Q. So, her profile is present. It's just not as strong a support? It's a weak support?
A. There is -- yes, there is weak support for her possible inclusion.
Q. And you ran the scenario with Maria Howard and two

unidentified individuals versus it being three unidentified individuals, correct?

A. That is correct.

Q. And for that scenario, it's approximately 12 billion more times likely if, if, if the combination was Maria Howard and two unidentified, unrelated individuals contributing to the mixture than if it were three unknown unrelated individuals, correct?

A. It is 12 billion times more likely to see this DNA profile if that is the case, yes.

Q. So, Ms. Howard has a -- is 12 billion considered a strong support, medium support, or weak support?

A. This statistic falls under our very strong support range.

Q. And you do the same scenario for Mr. Rowland, correct?

A. That is correct.

Q. And for Mr. Rowland, when you were looking at him plus the two unidentified people versus the three unknowns, it was approximately 5 times more likely if three unidentified, unrelated individuals contributed to the mixture versus Mr. Nathaniel Rowland and two unidentified, unrelated individuals, correct?

A. It is 5 times more likely to see the DNA profile if that is the case.

Q. Yes, ma'am. So, it's more likely that it's three unknown people?

A. It is more likely to see this DNA profile if three unidentified, unrelated individuals contributed to the mixture rather than if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture.

Q. Yes, ma'am. I swear I'm -- we're almost done. Can you look at item 130.1.1, please? Other cuttings from left side hem area of the tan shirt that was removed from item 130, which was the Family Dollar bag, bag number 2, correct?

A. That is correct.

Q. And you were able to develop a profile of two individuals, right?

A. Yes, that is correct.

Q. And the hem's at the bottom of a shirt, right?

A. From my understanding.

Q. Okay. That's right. You didn't see the, the parent item. You just got the sample?

A. Yes, that is correct.

Q. But we have a profile of two individuals. So, Samantha Josephson was put into this scenario?

A. Yes.

Q. And when you compared the two hypotheses, it was

determined that it was approximately 4.1 septillion times more likely that Samantha Josephson and an unidentified, unrelated individual contributed to the mixture than if two unidentified, unrelated individuals contributed to the mixture, correct?

A. It is 4.1 septillion times more likely to see this DNA profile if that is the case.

Q. And you did -- you put Mr. Rowland's profile in that same scenario?

A. That is correct.

Q. End result that you came to as far as that scenario is that it's approximately 13 times more likely if it were two unidentified, unrelated individuals in this mixture versus if it was Nathaniel Rowland and one unidentified person, right?

A. It is 13 times more likely to see this DNA profile if that is the case, yes.

Q. So, it's more likely that Mr. Rowland is not a contributor to this particular scenario, this mixture of profiles?

A. According to the DNA profile, yes.

Q. And can you look at item 1-0 -- 130.1.2, please? That's the scraping from the neck area of the tan shirt, correct?

A. That is correct.

Q. This is another one where it's a mixture of five?
A. Not quite. This was a DNA profile that was developed, but due to the complexity of the profile and the inability to determine the number of contributors, no further interpretation will be offered.
Q. I apologize about that. I was looking at the wrong one. So -- but anyway, you never did any further analysis because you couldn't determine how many people's profiles were present. Is that what that breaks down to?
A. Exactly.
Q. And is it usually the situation when you have something like this, you know, you can't determine how many, is it typically more than one?
A. Yes.
Q. Typically more than two?
A. No, that's not necessarily the case. It can be -- it -- where you suspect that it's a mixture of two or anywhere above that.
Q. Okay, but definitely more than one?
A. Yes.
Q. Okay. Will you look at item 130.2 for me, please? Those are swabs from the handles of item -- swabs from the handles of item 130, which is the Family Dollar bag number two?

A. That is correct.
Q. On those handles, there is a mixture of two individuals?
A. Yes.
Q. The first scenario, you include Ms. Josephson's profile?
A. With an unidentified, unrelated individual.
Q. Yes, ma'am, and you compared that to the profile of two unidentified, unrelated individuals?
A. Yes, that is correct.
Q. And it's approximately 1.7 septillion times more likely if Samantha Josephson and an unidentified, unrelated individual contributed to the mixture of that profile versus it being two unrelated individuals, correct?
A. It is 1.7 septillion times more likely to see the DNA profile if that is the case, yes.
Q. Yes, ma'am, and there were no other known profiles, known samples that you have that you could include as that second individual, right?
A. That is correct.
Q. Would you please look at 131.1.1.1? That's a cutting from the right cuff of a shirt. I believe Mr. Goldberg showed it to you. I would take it out, but I can't get gloves on, but that was the Nike sweatshirt

that he had held, held up, black with white strings, correct?

A. From my memory, yes.

Q. For -- so, for this particular item, the cutting from the right cuff, I think we, we might have skipped over it. There were four individual profiles unidentified in this sample, correct?

A. That is correct.

Q. So, you do the scenarios. You include Ms. Josephson's with three unidentified individuals versus it being four unidentified, unrelated individuals, correct?

A. Yes, that is correct.

Q. And Ms. Josephson has a -- what you would consider a very strong probability of being present in this particular mixture?

A. Yes. The statistic associated with Samantha Josephson is in our very strong support range.

Q. You testified that Mr. Rowland had a what you consider, you know, a strong likelihood of being involved in this profile that you were able to develop?

A. The statistic associated with Nathaniel Rowland fell under very strong support range.

Q. Would it surprise you for somebody's DNA to be on an item of clothing that they owned? If, if, you know,

John owned a shirt, would you expect to see John's DNA on the shirt?

A. Yes, if he had worn it.

Q. Okay.

A. Or handled it, excuse me.

Q. Yes, and then you excluded everybody else that you had a known sample for, correct?

A. Yes, that is correct.

Q. So, we have four profiles. We've got strong support for two profiles, Ms. Josephson and Mr. Rowland. So, there's two unidentified profiles still showing up on this item, correct?

A. Yes, that is correct.

Q. And we don't know who they are?

A. That is correct.

Q. Item 131.1.1.2, that's a swab from scrape -- swab from scraping the neck area of this same shirt, correct?

A. That is correct.

Q. And this is the one I, I mistakenly was talking about a minute ago. This is the one that has five profiles?

A. That is correct.

Q. So, you could not do any more testing on it?

A. Yes, that is correct.

Q. But we know there's at least five?

A. Yes.
Q. On item 131.1.2.1, cuttings from the left thigh area of the pants, that's a mixture of three, three different DNA profiles, correct?
A. That is correct.
Q. So, you start with Ms. Josephson. You create the scenario. It's Ms. Josephson and two unrelated individuals versus it being three unrelated individuals, correct?
A. That is correct.
Q. And for that scenario, it's approximately 3.1 septillion times more likely if Samantha Josephson and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture, correct?
A. It is 3.1 septillion times more likely to see this DNA profile if that's the case.
Q. Yes, ma'am, and that's a -- what -- what's considered a very strong support?
A. Yes. That statistic falls under very strong support range.
Q. You included Mr. Rowland in that same scenario?
A. Yes, that is correct.
Q. What is -- what would Mr. Rowland's likelihood be classified as?

A. The statistic associated with Nathaniel Rowland is 55, which falls under our weak support range.
Q. So, it's a weak support, you say?
A. That is correct.
Q. And then you excluded everybody else that you had known samples for?
A. Yes, that is correct.
Q. But we started out with a mixture of three profiles. So, there's still one person that's unidentified from this mixture, right?
A. That is correct.
Q. Item 131.2, the swab from the handles on item 131, that's a mixture of two individuals, correct?
A. Yes, that is correct.
Q. You created the scenario including Maria Howard and two -- sorry, Maria Howard and one unidentified individual versus it being two unrelated people?
A. Yes, that is correct.
Q. And Ms. Howard's result would be what's considered a strong support, correct?
A. The statistic of 92 billion falls in our very strong support range.
Q. But everybody you had samples for, including Ms. Josephson, were excluded?
A. That is correct.

Q. So, the second profile is somebody that we don't know?
A. That is correct.
Q. And those were the handles on item 131, which is the Family Dollar bag, correct?
A. Yes.
Q. And item 140.1, swabs from scrapings on the interior of the black beanie, you had -- you found a profile of four individuals?
A. That is correct.
Q. You did the scenario for Ms. Josephson, and it was 2 -- 210,000 times more likely if it's Samantha Josephson and three unidentified, unrelated individuals contributing to the mixture than if it's four unidentified, unrelated individuals contributing, correct?
A. It is 210,000, 210,000 times more likely to see this DNA profile if that's the case.
Q. And that's considered a small, small -- a strong support, correct?
A. Yes. That falls in our strong support range.
Q. And Mr. Rowland, Nathaniel Rowland also has a strong support range, 11 octillion?
A. 11 octillion falls in our very strong support range.

Q. You would not be surprised to see Nathaniel Rowland's DNA in that beanie if he's worn it before, correct?
A. That is correct.
Q. But we know there's two other identify -- two other profiles on the sample that you have?
A. Yes, that is correct.
Q. And you were not able to include any other known sample that you have been provided, right?
A. That is correct.
Q. All right, a few more items. If you could go back towards the front of your report to item number 13, I just want to touch on a few things. You mentioned testing hair. A number of different hairs were collected and submitted for testing, right?
A. That is correct.
Q. Did these hairs have roots on them?
A. If the hair was taken through a DNA analysis, then it had a suspected root on it.
Q. So, when you -- I guess when you received the hair, were you doing a root test, or were you testing for some other type of DNA like blood or touch or something?
A. When we receive a hair, we look at it under a microscope and determine if there is a possible root and if there is, we will send it forward to DNA analysis.

And a root is just skin cells from your head.
Q. Okay. So, if there's any hair that has testing done, are we assuming -- are you testifying that there was a root present?
A. I'm testifying that there was an apparent root present.
Q. Okay. All right. Fair enough. So, if you'd please, please look at item 13? That's a hair that was from the right hand of Samantha Josephson?
A. That is correct.
Q. And you were able to develop a profile off of this item, correct?
A. That is correct.
Q. And it's a mixture of two individuals?
A. That is correct.
Q. And Nathaniel Rowland is not one of those individuals?
A. That is correct.
Q. And you were able to develop -- there was no Y-STR profile developed, correct?
A. That is correct.
Q. And that's a hair that was in her hand. It has two profiles on it?
A. Yes.
Q. Item 16 were the nail, fingernail scrapings. 16.1

was the right-hand fingernail scrapings from Ms. Josephson, correct?

A. That is correct.

Q. Nathaniel Rowland's DNA is not under Samantha Josephson's right-hand fingernails for the scrapings, correct?

A. For the STR profile, that is correct.

Q. Yes, ma'am. For 16.2, Nathaniel Rowland's DNA is not under Ms. Josephson's fingernails?

A. That is correct.

Q. For item 17, fingernail clippings from the right hand of Ms. Josephson, Nathaniel Rowland's DNA is not on the fingernail clippings, correct?

A. That is correct.

Q. You did develop a Y-STR profile though?

A. That is correct.

Q. But you couldn't determine the number of contributors to that profile?

A. That is correct.

Q. So, you couldn't do anything with it?

A. Yes, that's correct.

Q. On item 18, fingernail clippings from the left hand of Samantha Josephson, Mr. Rowland's DNA is not under those fingernails either, is he?

A. Nathaniel Rowland is excluded as a contributor to

the STR profile, that is correct.
Q. Yes, ma'am, and under -- in item 18, you were able to, to develop a Y-STR profile?
A. Yes, that is correct.
Q. You were able to break it into a major contributor and a minor contributor?
A. That -- I was able to determine a major contributor.
Q. And that's unidentified male A?
A. That is correct.
Q. And under -- with item 18, there were three profiles developed, right, for the STR mixture, three different profiles?
A. Yes, that is correct.
Q. Okay, and you just testified that Nathaniel Rowland's not one of those profiles, correct?
A. That is correct.
Q. So, it would be Samantha Josephson and two unknown people?
A. Yes, that is correct.
Q. And item 19, the swab from the left ankle of Ms. Josephson, there is a profile from Ms. Josephson present, Ms. Josephson present on her ankle?
A. That is correct.
Q. Which is to be expected?

A. Yes.
Q. But there is also DNA that's not attributed to her that's also present?
A. That is correct.
Q. You were not able to do any further testing as far as the STR testing, correct? I mean, the profile testing.
A. Yeah, no, no further interpretations could be offered.
Q. Yes, ma'am, but you were able to develop a partial Y-STR?
A. Yes, that is correct.
Q. And that's a mixture of at least three male individuals?
A. Yes, that is correct.
Q. But we have no other information that was available, and you were unable to do any, any further testing, correct?
A. Any further comparisons, that is correct.
Q. And then swabs from the right ankle of Samantha Josephson, item, item 20, you don't indicate that there's -- that Mr. Rowland's DNA is on her right ankle either?
A. That is correct.
MS. PINNOCK: Beg the court's indulgence.

(A PAUSE.)

MS. PINNOCK: I have no further questions.

THE COURT: Any redirect?

MR. GOLDBERG: Thank you, Your Honor.

REDIRECT EXAMINATION BY MR. GOLDBERG:

Q. Regarding item 104.2, that is the inner handle of the knife that I showed you earlier. Is that right?

A. That is correct.

Q. You testified that you used two different methodologies to analyze that item. Is that correct?

A. That is correct.

Q. You used the STRmix methodology?

A. Yes.

Q. And Y-STR methodology?

A. Yes, that is correct.

Q. Using the STRmix methodology, there was some level of support for inclusion of the defendant in that profile. Is that right?

A. Yes. To see this DNA profile is approximately 49 times more likely if Nathaniel Rowland and two unidentified, unrelated individuals contributed to the mixture than if three unidentified, unrelated individuals contributed to the mixture.

Q. And for the second methodology, the Y-STR, there was also some level support for Mr. Rowland's inclusion,

correct?
A. That is correct.
Q. Now, if you, if you were to -- if an item were to be swabbed such as a jacket, for example, and a profile was developed from said jacket and your analysis excluded a person from being part of the profile, okay, does that mean that that person has never worn the jacket?
A. No, it does not necessarily mean that.
Q. Does it mean they've never touched the jacket?
A. No, it does not necessarily mean that.
Q. Does it mean they've never used it in any way whatsoever?
A. No.
Q. Along those same lines, if I were to, if I were to give you this jacket or crime scene investigators my jacket and they were to swab it and it was analyzed by you, would you automatically find my DNA on every swab that's taken from this jacket?
A. Not necessarily, no.
Q. All right, there were questions about Ms. Josephson's fingernails in the items of evidence relating to her clippings and scrapings, correct?
A. That is correct.
Q. Throw another hypothetical at you. If someone was

wearing long sleeves and gloves and another person tried to scratch them or hit them or touch them in some way over those clothes, can you say whether the presence of those long sleeves and gloves would increase or decrease the likelihood of seeing that person's DNA profile under those nails?

A. This would not apply to a universal rule, but one of the things that does inhibit touch DNA is if you're wearing layers, you're less likely to shed your DNA than if you are -- have your skin exposed. However, multiple possibilities are always -- should always be accounted for.

Q. Certainly. There's been a lot of big numbers thrown out here today, septillion and octillion being two of them, correct?

A. That is correct.

Q. And specifically, Ms. Pinnock asked you about item 140, I believe, your item 140. That was the parent item of the black beanie taken out of the Impala, correct? I think you, I think you did some analysis on 140.1.

A. Yes, that is correct.

Q. And this was the parent item that we talked about earlier, correct?

A. That is correct.

Q. Okay, and regarding your analysis of this item,

what was your result again regarding Mr. Rowland's inclusion on that item?

A. Specifically for item 140.1, the DNA profile was interpreted as a mixture originating from four individuals, the scenario one being Nathaniel Rowland and three unidentified, unrelated individuals contributed to the mixture versus scenario two of it being four unidentified, unrelated individuals contributing to the mixture. The result of that comparison is the DNA profile is approximately 11 octillion times more likely if Nathaniel Rowland and three unidentified, unrelated individuals contributed to the mixture than if four unidentified, unrelated individuals contributed to the mixture.

Q. 11 octillion?

A. That is correct.

Q. How many zeros are there in octillion?

A. Twenty-seven.

Q. There has been a lot of discussion this afternoon in this courtroom about unidentified, unrelated individuals, correct?

A. Yes.

Q. Ms. Pinnock referred to them earlier when questioning you as -- loosely as other people, but we're actually talking about other DNA profiles, correct?

A. Yes, that is correct.
Q. Okay, and to that end, can you say whether all of those profiles, all of those unrelated, unidentified, unidentified individuals, whether they were all left at the same time on that item?
A. No, I cannot tell that.
Q. Or in a location?
A. No.
Q. Could have been left two different times, correct?
A. Yes, that is correct.
Q. Could it have been fifty different times?
A. Yes, that is possible.
Q. A thousand times?
A. It is possible.
Q. She asked you about -- I believe it was thirteen different items out of the vehicle, the Impala, and referenced unrelated, unidentified individuals regarding each one of those items. Those unidentified, unrelated individuals, could those profiles have come from any person that's ever come in contact with that vehicle at any time?
A. Yes, that is possible.
Q. The driver perhaps?
A. Yes.
Q. Passenger?

A. Yes.
Q. Could it be from a mechanic doing work on the car?
A. Yes, that's possible.
Q. Body shop worker?
A. Yes.
Q. Even an assembly line manufacturer when the car was originally made?
A. Yes, that's possible.
Q. She also asked you the same thing in regards to a number of items collected from Mountainbrook in the trash, correct?
A. Yes.
Q. Would the same be true for almost all of those items, regarding the clothing, correct? I'm sorry. I'll rephrase the question; I'll restate the question. Is it possible that any person that's ever come in contact with, say, clothing found in those trash bags could have left their DNA?
A. That is correct.
Q. Or anyone who's ever come in contact with the grocery bags found in that location?
A. Yes, that is possible.
Q. To include sales clerks?
A. Yes, that is possible.
Q. Manufacturers?

A. Yes, that's possible.

MR. GOLDBERG: Thank you. That's all.

THE COURT: Any further cross-examination?

MS. PINNOCK: No, Your Honor.

THE COURT: All right. Thank you. You may step down.

(THE WITNESS EXITS THE STAND.)

THE COURT: All right. Okay, ladies and gentlemen, that is it for today. We will resume 9:30 on Monday morning. Remember the admonition that you are to not be exposed to any information about the case outside of the courtroom. You're not to discuss the case with anyone, allow anyone to discuss it with you or in your presence because you are to decide the case solely on what you hear in this courtroom. And it would be unfair to your fellow jurors to deliberate with someone out in the street, you might say, who has not heard the testimony. Not only unfair to your fellow jurors, but it would be a violation of your oath as jurors, and you don't want to do that.

When you return on Monday, juror number 130, I'm appointing you to be the foreperson of the jury. As foreperson, you take the first seat here in the corner. I believe that's the foreperson's seat on the front row, and that's the foreperson seat. It will be your

THE COURT: Okay.

MS. SAMPSON: As we were sitting here because they're duplicative of some closer up shots. So, the state would agree to take out 345 and 348, but we have smaller closer up versions, which would be State's 341 in close up, and State's 342 is also a close up of those -- of just the wounds versus the entire face.

THE COURT: All right. If you will bring the jury.

(THE JURY ENTERS AT 9:45 A.M.)

THE COURT: Good morning.

JURY: (*EN MASSE*) Good morning.

THE COURT: All right, welcome back, Madame Forelady and members the jury. Hope you had a good weekend.

If any of you have been exposed to anything that affects your ability to be fair and impartial in this case, please raise your hand.

(NO HANDS ARE RAISED.)

THE COURT: All right. Very good. We will press on.

You may call your next witness.

MR. GIPSON: The state calls Dr. Thomas Beaver.

THOMAS R. BEAVER, BEING DULY SWORN, TESTIFIES AS FOLLOWS:

CLERK: Please have a seat. State your full name

for the record.

WITNESS: My name is Dr. Thomas Richard Beaver, B-e-a-v-e-r.

VOIR DIRE EXAMINATION BY MR. GIPSON:

Q. Good morning, Dr. Beaver.

A. Good morning.

Q. What is your profession?

A. I'm a forensic pathologist.

Q. And tell us what a forensic pathologist is.

A. Yes. A forensic pathologist is a physician who had been specifically trained to determine the cause, matter, and mechanism in cases of unexplained death.

Q. And are you a licensed physician?

A. Yes, sir, I am.

Q. In what states?

A. I'm licensed in the State of Florida, South Carolina, of course, California, and I didn't renew my West Virginia license this year, and I was previously licensed in Colorado, and I let that expire as well because it's expensive and I don't practice there.

Q. All right. How long have you been a forensic pathologist?

A. I finished training in 1992 and went to work at that time as a forensic pathologist. So, it will be July of 1992.

Q. All right. So, roughly twenty-nine years?
A. Yes, sir.
Q. All right. Can you tell me a little bit about your background, your education, things of that nature?
A. Certainly. I have an undergraduate degree from the University of California. I have a medical degree from St. George's University School of Medicine. I completed a five-year residency training program in anatomic pathology and clinical pathology at the University of Colorado, and I completed a fellowship in forensic pathology at the Denver County coroner's office. I completed the -- I took the certified examination that was given by the America Board of Pathology in anatomic pathology, clinical pathology, and forensic pathology, passing all those exams on the first attempt. So, that makes me board certified in anatomic pathology, clinical pathology, and forensic pathology.
Q. All right, and when you say board certified, when you talk about these exams that you passed on the first attempt, just what does that mean, I guess, in layman's terms that you're board certified?
A. So, before you can become board certified, you have to complete the requisite training program satisfactorily. So, you have to -- in my case, I did five-year training program to get both anatomic and

clinical pathology. Once you complete that, then you are eligible to take the exam. So, you take the exam. The pass rate is less than 50 percent. In the group of forensic pathologist that took the forensic pathology exam, it was about 50 percent was the pass rate. To pass all those exams on the first attempt is really unusual.

Q. Now, in your twenty-nine years of being a forensic pathologist, have you received any awards or special, special recognition? Any honors, anything of that nature?

A. Yeah. So, I was appointed to the Crime Lab Counsel in the State of Florida by the governor and, and so that's about the only thing. I don't really seek awards or anything like that. So, I don't really myself.

Q. All right, and what positions have you held in your time as a forensic pathologist?

A. So, my first, my first job out of training, I was in private practice, pathology, in Modesto, California, and in that group I covered -- I was the only forensic pathologist, so I covered all the counties of central Florida, so -- I mean, central California. And it won't mean much to you, but it's Stanislaus County, Merced, Amador, Tuolumne, and Calaveras. Those were all little counties in Central Valley. Modesto is the city, and

that's where I lived.

Then I moved to Florida, where I became the associate medical examiner in Panama City, Florida. I was there a little -- been a little bit more than a year, and then I moved to the chief medical examiner position in Daytona Beach. Florida is a medical examiner state; it's divided up into districts, twenty-five districts. Each district gets a medical examiner appointed by the governor for a two or three-year term, and so I was in Dayton Beach for almost nine years.

And then I took a teaching position at Texas Tech University, where I was the director of the Division of Forensic Sciences within the university. In that capacity, not only did I teach medical students and residents, which is what I do now, but I also was the director of the forensic science program, which included an undergraduate track as well as a master's in forensic science.

Q. Were you in California at some point in time?

A. Yes. So, then I -- so, I was there about three years and then I went to California. My, my wife had a seizure and it turned out to be brain cancer, and she wanted to be back home and so we went to California. Took care of her for a while, and then had to go back to

work, and went -- I took a position at Alameda County, which I was the chief forensic pathologist in Alameda County.

Q. And would that be the Oakland area?

A. Yeah, that's Oakland, California. Big office.

Q. Sure.

A. I had twenty-two investigators, I had technicians, six clinical staff. We never turned off the lights and never locked the door because we ran 24/7.

Q. How long were you in Oakland, in that area, Alameda County?

A. Yeah. I was in Alameda County for about three years and finished my kids, all out of the nest, and they were all out in their own lives, and I decided to go back to Florida, and I tool a job in the Florida Keys, and I was the medical examiner for District 16, which is the Florida Keys, the Monroe County.

Q. Now ---

A. And ---

Q. And if I can -- and I'm going to kind of focus us now in South Carolina.

A. Sure. Absolutely.

Q. How long have you been in South Carolina?

A. Since June of 2018.

Q. Okay, and what is your position here?

A. I'm an associate professor at the Medical University of South Carolina.

Q. Okay. In the position as associate professor at MUSC, as I'll call it, do you perform autopsies?

A. Yes, sir, I do.

Q. What is an autopsy?

A. So, an autopsy is an examination of the body, externally and internally. It's a systematic examination, so there's certain things we just do the same way every single time. It starts with the external. So, we're looking on the surface of the body for evidence of therapy, scars, and identifying marks, evidence of injury, and then just a general condition of the body. The internal examination, we make incisions on the body so that we can access all the body cavities and organs. The organs are removed individually and sequentially and dissected and biopsied. We take photographs of the entire process, so every step of the way we take pictures, so.

Q. And then I'll ask you this question because we'll get a little bit more in depth in a couple of minutes about that. Roughly how many autopsies have you performed in the last twenty-nine years?

A. Oh. Yes, sir. I don't keep a count, but it's, it's probably 10,000 and it may be more.

Q. Okay. Have you been declared as an expert in the field of forensic pathology?

A. Yes, sir, I have.

Q. Okay. In the multiple states where you practiced?

A. Yes, many times.

Q. And in South Carolina as well?

A. Yes, sir.

Q. All right.

MR. GIPSON: Your Honor, I would like to offer Dr. Beaver as an expert in forensic pathology.

MS. GOODE: No objection, Your Honor.

THE COURT: He is so qualified.

MR. GIPSON: Okay. Thank you.

DIRECT EXAMINATION BY MR. GIPSON:

Q. Now we can get into a few more specifics. Now, you were talking about kind of the methodology that you use when you perform autopsies.

A. Yes, sir.

Q. And you talked about pictures a moment ago and just how in depth -- you kind of remove organs and you systematically go through that process, correct?

A. Yes, sir.

Q. All right. Now, what I'll ask is this. With that methodology, you first said that you first take pictures.

A. Yes.
Q. Okay, and you detail, like you said, systematically the organs, and that's just the process that you go through in every autopsy?
A. Yes.
Q. Why do you take pictures?
A. So, the pictures are taken to document injuries. I think the old saying a picture is worth a thousand words is accurate here, and so -- and it's often times easier to show someone something than it is to explain it by, by words. So, so, now with the availability of digital photography and very good cameras and easy storage, we take the photographs that we would -- to, to explain what we see.
Q. Did you have the -- do you take x-rays?
A. Yes, sir, I do take x-rays. In this case, we took thirteen x-rays.
Q. Okay. Well, and I'll -- we're going to focus on this case in just a moment, but you generally take x-rays as part of your process?
A. Yes, absolutely.
Q. Okay. All right. Now, now we'll -- let's focus then. Let's get to it. So, did you have an opportunity to perform an autopsy on Samantha Josephson?
A. Yes, sir, I did.

Q. All right, and in the process that you talked about, that was what you followed as you performed that autopsy. Is that correct?

A. Yes, sir.

Q. All right. So, tell us. Let's start with photographs. You said you normally take photographs. Did you do that here?

A. Yes, sir.

Q. Approximately how many photographs did you take?

A. 170 photographs.

Q. Why so many?

A. There were a lot of injuries.

Q. Okay, and x-rays, I was just mentioning. Did you take x-rays?

A. Yes, sir.

Q. Okay, and how many?

A. I took thirteen x-rays.

Q. Why is that?

A. So, we take x-rays in the case of gunshot wounds as well as stab wounds, and so I had initially seen sharp force injury stab wounds. So, that makes me think that I need to take x-rays in this case, and I'm looking for perhaps pieces of the knife that have broken off. When a knife hits a bone, it will, it will either bend or break. So, many times ---

Q. So, you're saying steel will bend or break if it hits a bone?

A. If there's enough force applied and the knife blade not, not sturdy enough, it will, it will, it will bend or else maybe the tip will break off. When the tip breaks off, we can match that to a weapon if we recover it.

Q. Now, is -- Ms. Josephson was presented to you on -- March of 2019. What was her body weight and height?

A. Yes. She was 69 inches tall and she weighed 160 pounds.

Q. All right, and you alluded to some of this a moment ago. When she presented to you, what was it that you saw that grasped your immediate attention?

A. The, the -- there were two things first. The first thing was that she had an extensive amount of insect activity on the surface of the body, and the second thing pretty much the same time was that she had many stab wounds over the surfaces of the body.

Q. Now, you talked a moment ago about -- you said sharp force injuries?

A. Yes, sir.

Q. Okay. Explain to the jury how you characterize sharp force injuries.

A. So, in the universe of injuries for a forensic

pathologist, things are either blunt force or sharp force, and sharp force injuries are broken down into two types. Incised wounds, which are wounds that are longer than they are deep -- so, these would be -- some people might refer to them as a scratch or a cut. And then there are stab wounds, and the stab wounds are deeper than they are wide or, or long. So, these are wounds that -- where the knife has gone in. There is may -- a little cut in the skin, but the blade has gone deeper into the body. So ---

Q. Would some people call those puncture wounds?

A. Puncture wounds, yes, stab wounds. We -- so, I won't know, when I first see a sharp force injury, I won't know whether it's classified as a stab wound or an incised wound until I, I probe the wound and see how deep it goes.

Q. All right, and when you probe the wound, explain to the jury what you mean by probing a wound.

A. So, I have a metal probe that -- it's like a thin piece of metal and, and I put that into the wound, and I try to follow the path of the wound, and then -- and I mark the spot on the skin with my fingers by grasping it. And when I pull it out, I can then match it to a ruler, and I can see exactly how far the, the probe went in.

Q. Okay. Now, again, you captured all of these things that you did by way of taking photographs. Is that correct?

A. Yes, sir.

Q. And would that assist you in explaining to the jury, you know, what you observed and why -- and your findings as a result of what you observed?

A. Yes, sir.

Q. All right. Now, I'd like to first begin by showing you a series of pictures, and you, you talked about just kind of the methodology you use. As you performed this autopsy, did you, because of the number of stab wounds, as you mentioned, did you do them, do them in groupings? Did you try to group them differently than you normally would?

A. Yes, sir. Once the number gets up around a hundred, it really makes the autopsy report and any description very bulky. So, I try to group them where they're closely together and, and, and related. So, yes, I'll group them into groups of five or six or eight in a certain area.

Q. And you mentioned the number one hundred. Were you able to count the number of stab wounds as you observed Ms. Josephson's body?

A. Yes. It, it's over a hundred, I think somewhere

around 120, but it gets to a point where it's not really -- it doesn't really add much to the report.

MR. GIPSON: Court's indulgence, Your Honor?

THE COURT: Yes, sir.

(A PAUSE.)

BY MR. GIPSON:

Q. Now let's, for purposes of just organization, I prefer to go -- let's go head to toe.

A. Okay.

Q. So that we can talk about some of these matters. I'm going to show you -- and at this point, I'll show them to you. You can -- and my question to you -- I'm just going to explain the process and make sure we're clear. Do not show these to the jury as I show them to you. I want you to tell me if you, if you recognize them first. Then we'll talk about them before we do any publishing of any pictures. Do you ---

A. I understand.

Q. --- understand the process?

A. I understand.

MR. GIPSON: So, Your Honor, I'm going to approach the witness.

THE COURT: Just tell me the exhibit numbers.

MR. GIPSON: Okay. They are 3 -- State's 347, State's 346, State's 342, and State's 341.

THE COURT: Repeat that for me, please.

MR. GIPSON: I'm sorry. 347, 346, 342, and 341.

THE COURT: Okay.

BY MR. GIPSON:

Q. And, Dr. Beaver, do you recognize these photographs? And do not publish these to the jury, please.

A. Yes, sir. I recognize these photos.

Q. Okay. So, let's start. If you'll start with the photograph on top. Please refer to that exhibit number, and let's just talk about what you observed in that photograph.

A. Okay. So, I'm looking at Exhibit Number 3 -- or 341, 341.

Q. Yes, sir.

A. And it's a photo taken at autopsy. The body is in the supine position and ---

Q. What does supine position mean?

A. Means the face is up, face, face is up in the supine and prone, the face would be down. She's laying on her back in this particular photograph.

Q. Yes, sir.

A. And, and we're showing a close up of the left side of her face. The bottom of the frame is her left ear. Towards the left side of the frame is her chin. The eye

and eyebrow are towards the upper right corner, and what we see in the center of the frame is her cheek. And on the cheek are a number of parallel cutaneous defects, which I would describe as abrasions. And they're, they're abrasions that you would get if the body was dragged.

Q. You used a word, a term of art: cutaneous. What does cutaneous mean?

A. Cutaneous is just the skin and ---

Q. So, you're seeing scratches on the skin is what you're suggesting?

A. Yes, sir. You see scratches on the skin and they're, they're parallel scratches. So, I think that that -- the scratching surface, the scratch of the skin is going in one direction, all going in one direction.

Q. Okay, and that suggests a person is being dragged?

A. Yes, sir.

Q. Okay. Now let's look at -- again, not publishing to the jury yet. Let's look at the next picture of ---

A. So, now I'm ---

Q. --- your report, yeah, and explain again that exhibit number, and tell us what you see in that picture.

A. Yes, sir. I'm looking at Exhibit Number 342, 342, and this is another picture taken at the time of

autopsy. Again, the body is in the supine position. It's a close-up photo, and it shows the right side of the head. To the extreme right lower corner is the right ear. Towards the left side of the frame is the top of the head. Towards the extreme upper right corner of the frame is the nose. And so in the center of the frame, we are looking at the right side of the forehead, the right eye, and right eyebrow.

Q. All right, and so what is it -- did you notice any defects to Ms. Josephson in those pictures?

A. Oh, yes, sir. There's many.

Q. Now, explain to the jury another term of art, what a defect is.

A. So, a defect would be anything done to the skin that is not part of a normal process. So, if I cut myself shaving, that would be a defect that I created. So, it could be an abrasion from a rubbing on the skin. It could be a stab wound. It could be a bruise. It could be a burn. So, a defect is a very generic term for a number of different injuries that might have occurred to the skin.

Q. All right. So, explain to the jury the defects -- just without the pictures, without the visual, but you can acquaint yourself if that will help at the moment -- the defects that you observed when you performed this

autopsy on Ms. Josephson based on State's Exhibit Number 342.

A. Yes. So, she has bruising over the forehead and the right side of her face. She has a stab wound in the eyebrow. She has a number of other stab wounds on the right side of the face and ---

Q. May I interrupt you for a moment? You said a stab wound to the eyebrow?

A. Yes, sir.

Q. Okay. So, a moment ago you mentioned you take x-rays, correct?

A. Yes, sir.

Q. And one of the reasons you take those is you said was to see if there may be damage to a, a weapon, to a knife?

A. Yes, sir. That's -- this is the primary reason, when I saw these stab wounds to the head. The skull is a very hard bone, very thick, and stabbing the skull frequently results in the knife bending or breaking. So, it immediately alerted me to take x-rays because we might have a piece of knife actually embedded in the skull.

Q. Thank you, sir. Please continue.

A. So, I find that she also has an abrasion on the corner of the eye and, as I said, some bruising. The

right eye is somewhat collapsed, and that's probably from some trauma to it, and that's -- then there's hemorrhaging to the periorbital tissues, the tissue around the eye. She's got a black eye basically.

Q. Now, let's talk about that word you just mentioned there, hemorrhaging. Is there a way to determine if wounds take place if a person is living or postmortem, when they're dead?

A. Yes, sir.

Q. Okay. Explain that and extravasate, I believe, is a term that's used often, but explain those terms, hemorrhaging versus extravasated, to the jury if you would, please.

A. Sure. So hemorrhaging, hemorrhage is an active process and it requires a blood pressure. So when a person is alive, their heart's beating, they have a blood pressure. So, all the blood vessels in the body are under pressure and the blood flows. Extravasated means the blood has drained out of the blood vessel. So, if we, if we cut, say, a blood vessel and there's no blood pressure, blood will still drip out of it but it's not under any kind of force. There is no hemorrhage going on. But if the person's got a blood pressure and you cut the blood vessel, then the blood will pour, will, will squirt out. It will, it will be forcibly

expelled from the blood vessel by the blood pressure.

So, it would kind of be like if you had a hose and the water was turned off then you cut the hose, you would expect a few drops of water to come out of the cut, but it wouldn't be much. If the hose was turned on and you cut it, then you would expect the water to come out forcibly. That's the difference between extravasated and hemorrhage.

Q. All right, and so in this case, you said hemorrhaging?

A. Yes. So, she has hemorrhage.

Q. Okay. So, it would suggest she was alive when these wounds were inflicted?

A. Yes, sir.

Q. Okay. All, right, and so please continue as you were describing State's Exhibit Number 342.

A. There are also some wounds in the hair that we can see, and when I saw these wounds, I felt around in the hair. She has thick hair, and I could feel other wounds. So, at that point I know I'm going to have to remove some of the hair to get a good look at the wounds.

Q. Did you do that in this case?

A. Yes, sir, I did.

Q. And once you removed the hair, explain to the jury

what you saw. Just verbally explain what you saw.
A. So behind, on the right side of the head, behind and kind of above the right ear, there were multiple stab wounds.
Q. Did you see anything else of interest in State's 342 that you need to explain to the jury verbally?
A. No, sir. I think that's all.
Q. Okay. Now, let's turn to the next exhibit. Tell us again. Just identify it. Do not publish it to the jury at the moment. What's the next picture you have in front of you?
A. Yes, sir. I'm looking now at 346, 346.
Q. So, State's 346, take a look at that. Do you recognize that picture?
A. Yes, sir, I do.
Q. And tell us, tell us what you see there.
A. Okay. It's another picture taken at the time of autopsy, and again she's in the supine position. This is not as close up as the other photos. And at the top of the picture is the case number that we put in the photos, and it's the unique identifier we try to get in all the pictures. The photo itself shows her top of her head to the left side of the frame and her right shoulder at the extreme right lower corner. The, the number placard partially obscures her face, but in the

center of the photo we can see her right ear and part of the right side of her head. We can see the area that I shaved off the hair so we could look at the injuries there. We also see a number of injuries to the right side of the neck. Also in this picture behind the right ear, I've placed a letter, an adhesive letter.

Q. Okay.

A. That's part of how we keep track of the wounds.

Q. What letter is on that?

A. It's letter L.

Q. Okay, and what does that signify, the letter L in this case?

A. That, that so far I've gotten to the letter L. So, I start at A. I have a sheet of these letters, and I just peel and stick them. It's there. It's just a peel and stick thing, and I stick them on where the wounds are.

Q. Okay.

A. And so ---

Q. So sequentially, if you went, I guess -- or maybe that's properly numerically -- you went A, B, C, D, E, F, G, H, I, J, K, L?

A. L, yes.

Q. So this, the L stab wound, is what we're speaking of?

A. Yes. We're on L now at this. This particular photograph shows the L that I put there.
Q. Okay.
A. And all the wounds either got their own individual letter or the grouping of wounds got a letter, and then it was photographed. And that's so that if somebody wants to talk about these wounds, they can say, well, I'm talking about letter L, and we can all look at the picture and know that this is where -- this is the wound.

Also in this wound -- in this picture is a probe. Part of what I mentioned before about determining the depth of the wound ---
Q. Sure.
A. --- is place a probe in the wound and then, and then that way we are able to tell the depth of this wound and its approximate path.
Q. Can you show the jury on yourself? Can you point to the area on yourself where that probe was placed?
A. Yes. It's right kind of below and behind the ear, right here. I don't know if that's...

MR. GIPSON: And so if the record could find Dr. Beaver's pointing behind his left ear kind of where the skull and the neck line meet.
Q. Is that correct? And did you measure that probe at

some point?
A. Yes.
Q. Okay. How deep was that wound?
A. I'd have to look at my report, but I believe it was about 4 centimeters.
Q. Do you have your report with you?
A. Yes, sir, I do.
Q. Would it help your recollection to take a look at that?
A. Yes, it would.
(A PAUSE.)
A. It, it probes to a depth of 3.6 centimeters.
Q. Okay. Can you show us just kind of with your fingers about what 3.6 is?
A. Yes, sir. I think it's about that far.
Q. All right, and what type of damage would a wound that goes 3.6 centimeters -- excuse me. Did you say centimeters?
A. Centimeters.
Q. Centimeters into the area that you just showed, what type of effect could that have based on your medical experience?
A. Yes. It could go into the skull and into the brain, and that would, that would be a serious wound.
Q. Life-threatening?

A. Yes, sir.
Q. Okay. Any additional things that you'd like to point out as it relates to State's 346 at this point?
A. No. No, sir.
Q. Okay. Now, if you'll take a look at -- I believe that's State's 347 with the same instructions. Just take a look at it and tell us verbally what you see.
A. Yes, sir. I'm looking at 347, 347.
Q. Okay.
A. And this is a picture, again taken at autopsy. Very similar to the last one showing the right side of her head and neck. Towards the top of the frame is her nose. Towards the left side is the top of her head. Towards the right side is her -- the base of her neck. And what I'm doing in this photograph is I'm holding the ear forward so we can see behind the ear. There is a stab wound that goes through the ear and then ends up going into the skin behind the ear and so to demonstrate that, I've pulled the skin forward. We can see the L that I said previously.
Q. Yes, sir.
A. That designates this wound that -- actually, another wound. The ones behind the ear are different, but -- so. that's what we're seeing here, and we also see the stab wounds to her neck.

Q. All right.

MR. GIPSON: Court's indulgence?

(A PAUSE.)

MR. GIPSON: Your Honor, I'd like to have State's Exhibits 341, 342, 346, and 347 admitted into evidence at this time.

THE COURT: They are marked for identification at this time.

MR. GIPSON: I'd like to have them entered into evidence at this time, Your Honor.

THE COURT: Identification only at this time.

MR. GIPSON: Yes, Your Honor.

BY MR. GIPSON:

Q. And did you take these photos?

A. Yes, sir, I did.

Q. Were they taken in the normal course of business?

A. Yes, sir.

Q. All right. Now, let's look at -- I'm sorry, I gave you -- let's talk a little bit more -- after we talk about the neck and the head, let's talk about the torso next. I'm going to hand you just a series of pictures at this point in time, and I'll double check which ones these are.

(A PAUSE.)

Q. All right, I'm going to hand you...

THE COURT: You may publish, you may publish the photographs that are in evidence.

MR. GIPSON: Yes, sir. All right.

THE COURT: The exhibit numbers are?

MR. GIPSON: Thank you.

BY MR. GIPSON:

Q. The exhibit number I'm going to show you, Your Honor -- excuse me, Dr. Beaver, State's Number 343, State's Number 344, State's Number 349, State's Number 350, State's Number 351, State's Number 352, State's Number 353, State's Number 354, State's Number 355, State's Number 356, and State's Number 357.

THE COURT: They are in evidence.

MR. GIPSON: Thank you.

BY MR. GIPSON:

Q. I'd like to hand you these ones. All right. So, let's start with, with the torso, if you would. If you would parse through those. Take a look at those, and let's take pictures of the torso out first, and let's talk about what you observed in the torso.

A. Okay.

Q. All right. So, which, which number do you have in front of you?

A. So, I'm going to start with State's 356, I believe it is.

Q. All right.

MR. GIPSON: Can the witness step down, Your Honor?

THE COURT: Yes.

BY MR. GIPSON:

Q. All right, if you could step down so you can talk to the jury, and you can bring photo with you.

Now looking at State's 356, all right, explain to the jury -- let's turn this way so you're facing the court reporter, and I'll hold the exhibit. Tell the jury what you're seeing here.

A. So, this is a photo taken at the time of autopsy.

Q. We'll have to rotate around a little bit. We may need to ---

A. Oh. Okay.

Q. --- walk around so the jury can see it.

A. And the bottom is the placard. This is the placard that I was talking about earlier. 275 is the number. Then we're looking at her back, and now she's rolled up on her side. So, so, we're looking at the left side. That's the -- her left arm at the top and her right shoulder at the bottom.

And we have cleaned her up. We have cleaned her up. So, we've washed off blood and things like that that might have obscured the injuries. But we still see a lot of, of, of these -- the sort of -- the skin is

sort of abraded off, and this, these yellow, sort of yellow waxy-looking things, that's all insect activity. So, that's from ant, and this specific insects are ants in this case. So, ants have taken and started to kind of take off the superficial layers of her skin.

But there are also injuries here, and so we can see a stab wound here, a stab wound here, a stab wound here, and a stab wound here. So, she has, she has a number of stab wounds on the -- on what I would call the flank area. So, in this area of her back.

This, these wounds, one of these goes actually into the lung, but then the other ones don't penetrate any internal organs. They go superficially centimeter or 2 but not, not into an internal organ. But the main thing is the insect activity is something to see there.

Q. All right. You can have a seat, if you would. We're going to do this with each of the photos.

So, take a look at the next torso photo that you'd like to take a look at.

A. I think -- yes, I think this is -- most of the rest are not torso.

Q. Okay.

A. So, I think this is the next one.

Q. Okay. So, tell us, tell us what who we're looking at, if you'll show us.

A. Okay.

Q. And tell us what exhibit you're looking at.

A. So, I am looking at 352, State's 352, and this is a photo. This time the body is laying on its back; it's supine. So, she's laying on the table back. We've got the placard here with her. I, I do identify her, and we're looking at the abdomen here, and her hand is kind of resting up on the abdomen.

So, we can see here some of that insect activity again on her wrist so that insects -- ants in this case -- have done that. Then we can see the knuckles of her hand. She has a little defect right there on that knuckle, which it's indicative of some type of blow perhaps, and then she has a little bit of discoloration in the knuckles. Contusion maybe.

Q. And if we can step around this way so the jury ---

(A PAUSE AS CELL PHONE RINGS IN COURTROOM.)

A. So, we have some swelling in the knuckles. We have some discoloration, and we have this little defect right here. And then the rest of her torso looks okay to me, and then indication of insect activity on her wrist.

Q. If you could take the next photo in the order that you'd like to go through is fine.

A. Sure. We'll just start here. So, this one is 3 -- 343.

Q. Okay. So, State's 343. All right.
A. Yes. So, here we're looking at the arm, and so first we have the insect activity I've been talking about, and we have two wounds here and here. So, superficial wounds where her arm came in contact with a knife or sharp instrument cut there, and so this is the back of the left arm. So, it would be this area here. You can see her elbow here, and there's another injury here. So, there's one, two, three injuries on that arm. And the yellow waxy material is postmortem from, from ants.
Q. All right, and let's take a look at the next photo.
A. So, now State's Number 349.
Q. And State's 349, explain to the jury what we're looking at here.
A. So, this is the right shoulder and part of the right neck. So, she's laying on her back, and the right shoulder is here in the center. Up to the far right corner of the frame is her right ear and some of the injury on, on her, on her right neck but ---
Q. Let me come around you so we can ---
A. Yeah.
Q. --- make sure the jurors are able to see you.
A. So, so, what we have are multiple stab wounds in this small area. So, in forensic pathology we like to

think of things that are close together in space are close together in time. So, these injuries would be from rapidly inflicting stab wounds because they're all very close together. Some of them are overlapping.

And there's a couple in here that caught my attention almost immediately. They are parallel. There are two parallel cuts, and we will see others like that, and that to me -- I said that's unique. It, it's very difficult to put wounds exactly spaced apart and exactly parallel. And so it made me think that we were dealing with an odd weapon and that we would be able to identify this weapon. So, so, this is the first real kind of clue I started thinking about is when I saw that right there.

Q. Yes, sir.

A. And that made me start to think about the type of weapon being perhaps not, perhaps not just generic knife but maybe now something unique.

So, she has other wounds in her neck here, but again these are all grouped together, and I would group this as a single grouping of wounds because they're all in the same area. They're all about the same size and they, they go with the musculature. They're not going to be fatal by -- in and of themselves. With medical treatment, they're not going to be lethal.

Q. Now, if you'll look again at State's Exhibit Number 349 that we've been referring to, do you -- were you able to see any defects to her ear there?

A. Yes, sir. So this one at the, at the far right, you can see there's a defect in the ear here. That, that's a stab wound that actually goes through the ear and into the neck from behind the ear. And we were talking about a photo earlier where I had tipped the ear forward. That, that was to see what -- that that went through, actually went through the ear.

THE COURT: Which exhibit number is that?

MR. GIPSON: 349, Your Honor.

THE COURT: All right.

BY MR. GIPSON:

A. I'm, I'm going to ---

Q. Yes, sir. If you'll get the others. And the same process. What, what exhibit are we looking at?

A. Yes, sir. This one is 344.

Q. All right, 344. I'll hold that.

A. So, here we're looking at the body again laying on the back. This time we're looking at the left arm. So, we have the left arm and hand here, and the placard's in here. The, the arm is running across the frame and towards the bottom of the frame. And we can see the insect activity here, but she also has two small wounds

on the forearm, and there's some hemorrhage into the soft tissues of the arm. Again, the wound's one that's not lethal, but, but it just shows the level of, of activity.

Q. All right. So, the next photo, please, sir. For this, you were looking at State's Exhibit 350, 350. I'll step around you again.

A. So this wound -- this photo, excuse me, you can see the peel and stick thing that I was talking about earlier, and the placard is at the bottom. She's lying on her back on the table, and we're looking at the right arm here.

You can see one of the wounds that was up on the right shoulder or in the grouping on the right shoulder right here. It's not a good angle photographically. So, you just see the discoloration of the skin, and then you see a parallel -- two parallel wounds near the elbow. So, that to me, that was starting to -- again, I'm starting to think about, at the time of the autopsy, I'm thinking these two parallel wounds. To be that close together and parallel like that is very unusual, and it's going to mean something. I just need to figure it out.

And then you can see the torso here. I don't see much there. Her hand would be off the frame to the

bottom.

Q. Thank you, sir. Grab that next exhibit if you would, please.

A. This one?

Q. Yes. What number is that?

A. This, this case -- this is number 357, 357. So this photo, we're looking at the foot, and it's the right foot and it's -- she's laying on her back, and there are some stab wounds here. And here we see really well that two parallel stab wounds that I was talking about it. And when I probed these wounds -- excuse me -- they run exactly parallel as well. So, it's not like this knife went this way or this way. They are parallel in every respect, and so that's unique.

And here I got the sense that there might be one and then two, but the, the knife didn't go in very deep. So, now I'm looking at this really being some type of a unique weapon.

And then go?

Q. Oh, yes, sir. Yes, sir. Any -- anything else you'd like to ---

A. Yeah. There's, there's hemorrhaging. You can some pinkish discoloration around the wound, and that is hemorrhage. So, we know she's got a blood pressure at this point, and blood is being forced out into the skin

around the wound once the blood vessels are cut.

Q. Thank you, sir.

A. 355, 355. So, now we're going to look at the right hand. So, placard's at the top. She is laying on her back. We're looking at the right arm. To the far right of the frame is about -- it's where her elbow starts or the -- and then to the right of the frame are the tips of her fingers, and we're looking at this wound on the palm of her hand. So, this is two parallel stab wounds, small, exactly parallel, and they probe all the way through the hand, and they go side by side all the way through the hand. So, what I'm -- and there's hemorrhage around, so you know she had blood pressure at this point.

So, there is a couple of things to take away from this. First of all, it's a defensive-type injury. You're being attacked with a knife. You put your hand up to try to reflexively block that attack, and the knife goes through your hand. That's what happened here. And both of those wounds are parallel. They're the same kind of parallel, close together stab wounds that we saw in the foot and the shoulder, and here they are really -- just it's a really good demonstration. So, I took another photograph closer up.

Q. Will you get that one, please?

A. Yes, sir.
Q. Thank you. Now, would it help if I hold both of those?
A. Yes, sir.
Q. Side by side?
A. Yes, sir.
Q. So, we're looking at State's Number 354 and 355.
A. So, that's an even closer picture of the palm of the hand. Looking at the palm of the right hand again. Towards the top would be her wrist. Towards the bottom, tips of her fingers, and these wounds are exactly two little cuts that are parallel to each other, and they're a set distance apart. They don't -- it doesn't vary, and they go all the way through the hand.

So, this wound is what you would expect for someone trying to defend themselves from a stab and, and the knife hit them, but in this case the knife is, is unique because it's got these two blades. It would have to have two blades or two pieces to the blade that would be parallel. And so at, at this point I, I, I knew we would find -- if we could find the knife, we could match it up with this wound because there's just -- and I actually went to Google and I looked at about a thousand pictures of knives, and I couldn't find any knife that was like this that had those kinds of parallel blades.

So, we'll look at the next one?

Q. Yes, sir.

A. So, 353.

Q. Yes, sir.

A. 3 -- 353. So, 353 is the right hand again. This time we're looking at the back of the right hand. So, remember I said that the wounds to the palm went all the way through and came out the back, and so now we're looking at where it comes out in the back. And again there are two parallel wounds side by side, and so coming out like that, they would have to be -- it would have to be two parallel blades.

So, we have the hemorrhage around it, so she has a blood pressure. And the wounds are exactly parallel and there are that set distance apart. So, that would take some kind of a unique instrument to do, do that.

I think we have one more.

Q. I've got all of those batch of photos.

A. I think I have one more.

Q. Okay. Let's take a look at that.

A. Yes, sir.

Q. Okay.

A. This is 351, 351. So, here is the left arm, and it shows us the insect activity. Sometimes based on the positioning of the body and what the insects have access

to can tell us something. So, sometimes if a body is moved from one place to another, if the insects get on the body at one place and do damage some skin and then the body is moved to another place where the insects don't have access, that can tell us, help us to piece together what happened. So, that's why this photo was taken.

There aren't any real significant injuries here. Just ant activity. So, that's the left arm.

So, the pattern here is that all the injuries are occurring on the right side of her body: right shoulder, right side of her face and neck, down this right hand. Left arm relatively spared.

Q. Can you offer an opinion as to what would happen for those major injuries to take place on the right side of one's body?

A. That would be the side exposed to the attack.

Q. You can have a seat in the jury box if you will, please. Now, sir, I'm going to show you what's been marked as State's Exhibit Number 294, and would you like a pair of gloves?

A. Yes, sir.

Q. Okay.

A. Here?

Q. They're right in front of you, sir. I'm sorry,

State's Exhibit Number 295. I apologize. I'm handing you now what's State's Number 295. You referenced multiple times -- well, tell us last what you -- what you're seeing with that that interests you as you look at this.

A. This knife has two, two blades and they are relatively parallel. They are bent at the tip, and they are the size appropriate for the wounds that I saw. This is, this is a, a -- this is, this is the weapon.

Q. And as you look at this, based on your twenty-nine years as a forensic pathologist, do you have an opinion as to that weapon and the, the injuries that Samantha Josephson sustained?

A. Yes. The, the parallel cuts are made by this.

Q. Now, did you see -- may I have State's Number 225 back, please? Did you see some singular stab wounds as well?

A. Yes. Yes. Many. In fact, the majority of the stab wounds were singular stab wounds.

Q. Let me hand that to you. Do you ---

A. So.

Q. Speak -- please speak to the jury.

A. Yes, sir. So, once this is pulled apart like this, now it's a single-bladed weapon. So, that's one of the things that was confusing me at the autopsy was I

thought there must be two weapons because there was the parallel blade ones, and then there were the single ones. So, I thought it's unusual to have two weapons, but now I think it's explained. It's explained to my satisfaction that this is the, this is the -- the knife in this confirmation would make the parallel wounds that I saw, and then if it's in this confirmation, it could then make the single stab wounds.

Q. Thank you. Thank you, sir. Now, as you performed this autop -- well, I'll scratch that question. How much blood does a human body normally contain?

A. It's about, about 4 or 5 liters.

Q. 4 or 5 liters?

A. Yes, sir.

Q. And so in U.S. metrics, in American metrics, what is that?

A. It's probably close to a gallon.

Q. Okay, and so as you performed the autopsy on Ms. Josephson, how much blood was found in her body?

A. It was not a lot. I found 20 milliliters in the pleural cavity, right pleural cavity, and really we had, we had difficulty obtaining the blood that we used for toxicology.

Q. All right, and so 20 milliliters is about how much? If you could, again, in layman's terms tell us what 20

milliliters ---
A. Yeah.
Q. --- looks like?
A. Maybe an eighth of a cup.
Q. Okay. So, about this much?
A. Yes. Yeah, a couple tablespoon, maybe 3.
Q. So, based on the wounds that you saw and the fact that about 5 liters of blood should be in a human body.
A. Yes, sir.
Q. Where would you expect the blood to be found in this type of activity, in this type of case?
A. The -- she's going to bleed out.
Q. She's going to bleed out, you said?
A. Yes, sir.
Q. Okay.
A. And one of the neck wounds involves the carotid artery and the jugular vein. We haven't talked about it much, but, but that, that wound would produce a lot of blood flow.
Q. Okay, and you'd expect to find that blood where?
A. Wherever she -- wherever it took place, wherever these -- these wounds were inflicted. The blood would come out immediately just like the hose analogy.
Q. All right. Now, you mentioned the neck wounds and the jugular, the jugular vein. Is there something

called a hyoid bone?

A. Yes, sir.

Q. Okay. Let's talk to the jury about the hyoid bone and what you observed with that.

A. Yes, sir. For a forensic pathologist, the hyoid bone is -- has a, has a great significance. It's a little horseshoe-shaped bone. Literally it would, it would fit inside my hand right here, and it sits up high in the neck. It sits up ---

Q. And so if, if you'll just show us, show us? Yeah.

A. Sure. It sits up high in the neck.

Q. Yes, sir.

A. And it's hooked to the back of the tongue and to part of the larynx, and it's a free-floating bone. It doesn't have -- it doesn't articulate with anything. It's not like an elbow or something. It's just -- it's hinged by muscle. So, there's muscle of the tongue on one side of it, muscle on the, on the throat on the other side of it. So, and for us it's the *sine qua non*, that which names, of manual strangulation. So, if you strangle somebody, you put your hands on their neck and you squeeze, that will fracture the hyoid bone. So, when we see a fractured hyoid bone, it is manual strangulation until proven otherwise.

The bone, because it sits so high up in the neck,

it's very -- punches and blows to the neck don't affect it. Because it's mobile and it's attached to muscle, again blows to the neck generally don't affect it. You have to get that, you have to get that squeeze motion to fracture it.

So, she had a defect in her hyoid bone on the right side. In her case, though, I am not of the opinion that it's a strangulation. I think it came from one of the stab wounds to her neck. The knife actually got up high enough to sever the hyoid bone.

Q. So, it's your suggestion that State's Exhibit Number 220 -- 295, this knife, would have gotten high enough to severe that bone?

A. Yes, sir, and so it doesn't say, it doesn't say for us that -- for me, it doesn't say absolutely. I couldn't tell you absolutely there was no manual strangulation involved, but I could tell you I would, I would favor the -- that it was done by a knife, by the stab wound. But it would be high to do because that bone is relatively protected. Even in ligature, when we see a ligature strangulation or someone committing suicide with a ligature, the hyoid bone ---

Q. What is a ligature? I'm sorry.

A. --- isn't fractured.

Q. Explain what a ligature is.

A. Oh. So, if we put a rope around the neck.
Q. Thank you.
A. Common, very common way people commit suicide, common way for people to attack each other. And even then you don't see a fractured hyoid bone because the ligature, the rope or the wire or the phone cord slips up over the bone or slips up underneath the bone but it doesn't get the hyoid bone. So, hypoid bone for a forensic pathologist is manual strangulation until proven otherwise.
Q. All right, and so here you said there's a severed jugular?
A. Yes, and carotid artery as well.
Q. All right, and so based on your twenty-nine years as a forensic pathologist, are those wounds lethal wounds?
A. Yes, sir.
Q. Okay, and so when we talk about the types of lethal wounds that you saw, we talked about an injury to the brain?
A. Yes, sir.
Q. And we talked about the injuries to the hyoid bone?
A. Yes, sir.
Q. And the jugular. Any or both of those could be considered lethal wounds?

A. Yes.
Q. Okay, and the wounds that you saw consistent with State's Number 295, the knife you talked about, do you have a -- an opinion right now that you could tell this jury what caused Samantha Josephson's death?
A. Yes. Multiple stab wounds. I made the cause of death multiple stab wounds.
MR. GIPSON: Court's indulgence, Your Honor?
THE COURT: Ladies and gentlemen, we're going to have you go to the jury room for a break now. Please do not discuss the case.
(THE JURY EXITS AT 10:49 A.M.)
THE COURT: Doctor, you may step down for a few minutes. Please do not discuss your testimony with anyone.
WITNESS: Yes, sir.
(THE WITNESS EXITS THE STAND.)
THE COURT: And we will be at ease for a few minutes, for a few minutes.
MR. GIPSON: Thank you, Your Honor.
(OFF THE RECORD.)
(DVD OF PRESENTATION MARKED AS STATE'S EXHIBIT NUMBER 358 FOR IDENTIFICATION.)
MR. GIPSON: Your Honor, may we approach for a moment?

from consideration 345 and 348. The state is not going to put them in.

THE COURT: Okay. Then these two will be marked as Court's Exhibit for purposes of the trial.

MS. SAMPSON: Do you want marked the other two that you excluded as well?

THE COURT: They've been marked for identification.

MS. SAMPSON: Okay.

THE COURT: These two are court's exhibits.

MS. SAMPSON: I guess my question is do you want the other two marked as court's exhibits that were excluded as well or just these two?

THE COURT: Well, if they're marked for identification only, it doesn't matter.

MS. SAMPSON: Okay.

(PHOTOGRAPHS PREVIOUSLY MARKED FOR IDENTIFICATION AS STATE'S EXHIBIT NUMBERS 345 AND 348 INDIVIDUALLY MOVED INTO EVIDENCE AS COURT'S EXHIBIT NUMBERS 5, 6.)

THE COURT: You ready for the jury?

MR. GIPSON: Yes, sir.

THE COURT: You can bring them on.

(THE JURY ENTERS AT 11:37 A.M.)

THE COURT: All right, welcome back.

You may continue.

MR. GIPSON: Thank you, Your Honor.

BY MR. GIPSON:

Q. Now I'm going to show you, Dr. Beaver, State's Exhibit Number 347, State's Exhibit Number 341. If you would take a look at those, please? We've discussed them briefly, but I want you to take a look at those.

A. Yes, sir.

Q. Okay. Are those familiar to you?

A. Yes, sir.

Q. And those, again, are pictures from the autopsy that were taken that you performed?

A. Yes, sir.

Q. All right.

MR. GIPSON: I'd like to have those two exhibits entered into evidence, Your Honor.

THE COURT: They are in evidence.

MR. GIPSON: Thank you. May the witness step down, please?

THE COURT: Yes.

BY MR. GIPSON:

Q. Now, Dr. Beaver, first I'm going to show you what's been now marked as State's Exhibit Number 341. As we talked about in your testimony earlier, would you explain to the jury the significance of this photograph and, and what that helped you ascertain?

A. So, first the thing that we -- I didn't mention

before ---

THE COURT: A little louder, please.

A. So, I didn't mention this before, but it's a good thing this reminds me. Insect larva are here. So, that's what those are, and so flies will come to the body almost immediately, within a matter of minutes. They lay their egg and eggs hatch, and that's what you're seeing there. Takes a few hours for the eggs to hatch.

So, these are the marks on the side of her face that I was talking about earlier. They are parallel, and remember they are yellow and kind of waxy looking. So, they're postmortem. There is no blood pressure to cause these to, to hemorrhage. They are occurring in postmortem interval and because they're, they're parallel like this, pretty much all running the same direction, that makes me think that there is a surface there that's now scraping across her skin. So, to me this means that the body has been moved in the postmortem interval. Someone's moved the body after death, and it also tells me a little bit about the insect activity, too.

Q. Thank you, sir. Now, next I'm going to show you what's been marked as State's Exhibit Number 347.

A. So.

Q. Explain to the jury what that is and the significance of that photograph, please.

A. So, we talked about the photograph with the L in it before, and it's showing the right side of her head and right side of her neck. And here I, I, I talked about the stab wounds to the ear on the other side. And here I pulled up the ear so we could see behind it, and you can see, again, the two very parallel, two parallel lines of where the stab went through the ear and then went into the neck.

This is not a fatal wound. These two parallel wounds are not fatal, but they are of interest because it's, it's helping us to identify the weapon.

This, you can see some of the insect larva are in her hair, and then there are some wounds here. This wound here goes into the skull and the brain, as does this one. Also, this wound here is somewhat unusual in that it has what we call a dogleg. Dogleg just means like an angle, and what it means is that the knife, either the knife or the body, they have turned relative with the blade in place. So, if you put -- stab this person and then you twist the knife or they move their head, you can create this. You create this dogleg type of situation.

So, I knew that the -- and here I believe that the

blade hit the skull and then, and then was deflected, and that's what created this dogleg. Skull is a very dense bone. It has two tables, so there's, like, two layers of bone, and this would be a place where that would happen.

The wounds on her neck, you can see them here. What's interesting with these wounds is that you can see that -- how they are kind of squared off at the back. This is a straight line and it's sort of a V at this edge. So, here squared off. The -- these two don't show it as well, but that helps me to tell this is a single-edged knife so there's not -- it's not a double-edged weapon, and that the heal of the knife, the flat part of the top is here and the cutting edge is, is there. So, it orients the knife relative to the body.

Q. So, Dr. Beaver.

A. Yes, sir.

Q. As I hand to you, again, State's Exhibit Number 225 -- I'm going to give you these gloves, if you'd like.

A. Sure.

Q. Holding State's Exhibit Number 225, that weapon, as you compare it to the actual sharp force injuries that Ms. Josephson sustained, tell us what your opinion is.

A. So, this knife has the two parallel blades, and it would be stabbed like this. So, so this would -- this

knife fits. These are single stab wounds, so the knife would have to be like this for these, and it has a flat part here. So, the flat part would be like this. This one has a flat part, too.

This has a more serrated edge to it, and that -- these distinctive markings on the edge of the wound sometimes -- I, I don't want to get into it, but I don't -- I think this might be where the -- this part of the saw blade was used, but it's, but it's too, it's too hard to say for sure.

Q. Thank you, sir. You can return to the witness stand if you would, please.

A. Thank you.

Q. Now.

MR. GIPSON: Court's indulgence.

(A PAUSE.)

Q. I'm going to show you what -- we've talked about this briefly, State's Exhibit Number 352. May I hand that back to you, sir, and just reorient yourself with that picture if you would, please?

A. Yes, sir.

Q. Now, in your twenty-nine years as a pathologist, again some 10,000 or so autopsies that you've done, do you always find DNA under fingernails?

A. No, sir.

Q. Let's talk about that just a little bit with the state's exhibit that I just handed you. What is it that you do during an autopsy when you photograph fingernails?

A. So, so, during an autopsy we, we use that, the autopsy, as a means to collect evidence. So, we clip the fingernails and place those into an envelope, and then that is turned over to law enforcement for analysis. So, we take each fingernail and we have a clipper and we clip them, and then we put the clipper in with the fingernails so they've got the clipper as well as the fingernails. In my experience, DNA is hit and miss. Sometimes you get it; sometimes you don't. And there are so many places in which it can be -- the specimen can be compromised. The first is that you don't get -- the person doesn't have any DNA under their fingernails. They didn't scratch anything or they didn't ---

MS. GOODE: Objection, Your Honor.

A. --- get the material.

MS. GOODE: I think this is outside the scope of his expertise.

THE COURT: Response.

MR. GIPSON: Your Honor, he is a forensic pathologist. He's been doing this twenty-nine years.

He's examined over 10,000 bodies and, Judge, he's got an opinion as to why DNA wouldn't -- if a person doesn't have DNA under their fingernails, he's giving a reason why that would not happen based on his experience.

THE COURT: He hasn't been qualified in that area, so I sustain the objection.

MR. GIPSON: All right. Thank you, Your Honor.

BY MR. GIPSON:

Q. So, you gave -- you talked about reasons here there -- you clip fingernails. You turn them over to law enforcement?

A. Yes, sir.

Q. Okay, and once you've done those things, at that point in time, again, after you photograph the fingernails, do you do anything in particular after that? Did you observe anything in particular of her hands that were of interest to you and her nails?

A. She, she had injuries to her hands. Also, I don't think her nails were very long. As I recall, they weren't long. They were fairly short, so, so I don't know if that affects the recovery of DNA.

Q. And so as we wrap up, you gave an opinion as to the cause of death here?

A. Yes, sir.

Q. Okay. The cause of death here is what?

A. Multiple stab wounds.
Q. Okay, and the blade that actually inflicted those stab wounds was what?
A. It's tool you showed me with the parallel knife blades.
Q. State's Exhibit, State's Exhibit Number 295?
A. Yes, sir.
Q. Thank you.
MR. GIPSON: That's all my questions at this time, Your Honor.
THE COURT: Cross-examination?
MS. GOODE: Thank you very much, Your Honor. May it please the court?
THE COURT: Yes.
CROSS-EXAMINATION BY MS. GOODE:
Q. Good morning.
A. Good morning.
Q. And you have a copy of your report with you today, right?
A. Yes.
Q. Okay, and the date that you examined Ms. Josephson, that was March 31. Is that right?
A. Yes, ma'am.
Q. Okay, and during that exam, you're wearing protective gear?

A. Yes, ma'am.
Q. Right? Gloves? Is that right?
A. Yes. Gloves, yes.
Q. Wearing protective gear on your hair, on your head?
A. Yes, ma'am.
Q. To cover your hair?
A. Yes, ma'am.
Q. And probably on your body, right?
A. Yes. Yeah. We wear a plastic gown that goes over the head, has sleeves. Actually hooks over your thumb. I personally wear two pairs of gloves and I have a hat, and then I have a mask on, and it's, it's a paper mask similar to the ones that are here like this.
Q. Right.
A. And then I have booties on, and then under all that I'm wearing scrubs, clothing that stays in my office that it doesn't go anywhere else. MUSC has a service, a machine. I turn the scrubs in, and I get new scrubs every time.
Q. Gotcha, and anyone else that would be present with you in that exam room, they would have protective gear on as well? At least gloves?
A. Yeah. For our, for our technical staff, they all would, including the person that takes the x-rays. Sometimes law enforcement comes in and they don't.

Q. You told us earlier that your exam starts by doing an external kind of view of Ms. Josephson's body, right?
A. Yes, ma'am.
Q. You take her weight?
A. Yes, ma'am.
Q. Right? You indicate that she was 160 pounds at the time of autopsy?
A. Yes, ma'am.
Q. She was 69 inches tall?
A. Yes. Yes, ma'am. I -- they're laying down.
Q. Long, I should say.
A. Yes. That's ---
Q. 69 inches long, and that is 5 feet, 9 inches?
A. Yes.
Q. Is that correct? Otherwise, a healthy adult female?
A. Yes.
Q. Okay, and you also during your kind of external exam, you, you take note of the clothing that she has on?
A. Yes, ma'am.
Q. And any notes about that, you put it in your report, anything you observe?
A. Yes. I, I -- my, my exam with the clothing is more superficial, the kind of clothing she has on and general

description. I don't go into detail examining the clothes because I'm going to take them off, and I'm going to package them, and they're going to be sent to an evidence technician who's going to examine them thoroughly.

Q. Because your job is related to examining the body?

A. The body, exactly.

Q. In this case, it came with clothing on it?

A. Yes, ma'am.

Q. On her and you did mention in your report that you noticed defects in the, in the clothing?

A. Yes, ma'am.

Q. Specifically her shirt?

A. Yes.

Q. And that it was heavily bloodstained?

A. Yes.

Q. You go on to make notes about her fingernails?

A. Yes.

Q. And in your report, you indicated that they were medium length at the time.

A. Okay.

Q. Today you're telling us that you thought they were fairly short in length?

A. Well, they were -- they were not long. Let's put it that way. So, I was in -- the idea of getting DNA

under your fingernails, long fingernails are -- will be more effective in getting some kind of DNA under your fingernails than short ones. So, hers were medium length, so probably a little bit longer than mine but not ---

Q. But you noticed that they were medium length?

A. Right. Yes.

Q. And they would be -- I'm going to show you my nails -- longer than my nails?

A. I, I, I think yours are about medium, maybe ---

Q. This is medium length?

A. Yeah. So, if, if you can see on -- short is no white, okay? No white color.

Q. I have no white on my nails.

A. I -- hard to see your nails.

Q. Okay.

A. But I ---

Q. But you were able to notice with the nails that she had evidence of tearing. That's what you put in your report?

A. Correct. Yes.

Q. And at the autopsy on March 31, you take the clippings?

A. Correct.

Q. And along with the fingernail clippers that you

clicked with, put those in a bag, right?
A. Correct.
Q. An evidence bag?
A. Correct.
Q. And those get sent off?
A. Yes.
Q. Law enforcement takes those, right?
A. Yes.
Q. Takes those back to the lab, right?
A. Yes.
Q. And you go on to tell us about the -- you notice that there are offensive wounds on her knuckles. Is that right?
A. I'm not sure what you mean by offense wounds.
Q. You -- I believe you told us as it relates to picture 352, State's 352 -- well, are they up there? 352, that you noticed on her knuckles.
A. Yes. So, the, the discoloration is on this part of the knuckle. Well, do you want me to talk about this or not?
Q. Well.
A. Is there a question?
Q. The question was you noticed a defect with her knuckles?
A. Yes.

Q. And that is on her -- is that, I believe, her right hand, left hand? Which hand is that?
A. It's the left hand.
Q. And you told us on direct that was indicative of a blow.
A. I said that it could be blows or struck.
Q. Okay. Like she hit something?
A. Yes.
Q. Okay, and on the flip, there was a stab wound to the other hand?
A. Correct.
Q. And we call that a defensive wound?
A. Yes.
Q. Something that you would see if somebody put up their hand to stop something from happening?
A. Yes.
Q. And that went through and through?
A. Yes.
Q. You also told us that Ms. Josephson experienced significant blood loss?
A. Yes, I believe so.
Q. And that it was difficult to even obtain a sample to send off for toxicology?
A. Yes.
Q. And the deepest -- and I'm just looking at your

report here, and correct me if I'm wrong. The deepest wound we noted here was, was it 7 centimeters, I believe?

A. Yes.

Q. And that was to her thigh. Is that right?

A. Yes.

Q. And 7 centimeters is, is what?

A. 3 inches or so.

Q. Less than 3 inches? 2 and to 3 quarters maybe?

A. Okay.

Q. And that's the, that's the, the deepest wound. And I'm not going to touch this. We've seen it plenty, but the weapon that we've talked about here today, it opens up, you said. Is that right?

A. Yes. I, I had not seen the weapon before it was presented to me today, so I did not know that it opened up until I saw it this morning, and ---

Q. But you've been told. You had a conversation with the prosecutors in preparation for trial where you -- a discussion about this multitool was, was had, right?

A. Yes. That was, like, a few days ago.

Q. And that -- and during that conversation, you would say that some of the wounds are consistent with being made by the open -- the multitool in the open position and some in the closed position?

A. Correct.
Q. So, there was some information you had prior to today about what type of weapon was alleged to have been used.
A. Yes.
Q. Okay, and also at that time, you told them there was evidence of offensive wounds because of the discoloration and defects you noticed on her knuckles?
A. I'm having trouble with this offensive wound thing.
Q. I'm, I'm just using the words that we were, we were given that you would, that you would be testifying to.
A. Okay. So, do you want to hear what my problem is or not?
Q. Sure. Sorry. Please.
A. Okay. So the knuckles, the knuckles that are in question are -- the ones that show defect are these here, like this one.
Q. Okay.
A. And this one and this one, okay. So, offensively when you make a fist, mostly you hit these knuckles, not ones that are in and not necessarily these. So, so, I don't know exactly how those knuckles were injured. They could have been injured in throwing blows, but I'm not going to say they are offensive injuries.
Q. Okay.

A. It's a fine gradation of logic, but ---
Q. I understand.
A. --- that's what I mean.
Q. But based on that photograph and your observation, it appeared that she hit something?
A. Yeah. Something -- she hit something or something hit her.
Q. Gotcha, and you described these wounds, and there are a lot of them. I believe you said there were over 120 or around 120?
A. Yes, something like that.
Q. And multiple stab wounds in a small area, that indicates to you close in time, or close together in space, close together in time?
A. Correct.
Q. This is a rapid -- these are rapid stab wounds?
A. My opinion.
Q. Yes, based on what you've observed on the right-hand side of her shoulder, right?
A. Yes.
Q. In that grouping of wounds there, right?
A. Yes.
Q. Okay, and again we have wounds all over her body, right? In all areas of her body? Not covered completely, but they are, they are not just on her head,

not just on her torso, but she has them on her legs, her foot?

A. Correct.

Q. Back, right?

A. She has wounds in many places.

Q. And you were able to see those as you examined externally. You were able to see those and make notes?

A. Yes, ma'am, and photograph them.

Q. And photograph. And did you do any measurements, or, I guess, you did mention you had done a Google search to see if you could find anything, but did you, other than -- did you measure the alleged weapon in this case?

A. I didn't -- I never even knew this weapon existed until a few, few days ago.

Q. Okay. So, the -- it has two different blades, right?

A. Yes.

Q. And then when it opens up, the blade would be -- there would be a blade on each end. Is that right?

A. Yes.

Q. Okay.

A. And I didn't know any of that until just a few days ago.

Q. Okay, and you didn't get a, you didn't get a

picture of the weapon at that time?
A. No and, in fact, I sent law enforcement a picture that I thought might be the weapon and -- just from my search of thousands and thousands of images of knives, and -- but it turned out to be something entirely different.
Q. Interesting.
MS. GOODE: Beg the court's indulgence.
(A PAUSE.)
Q. Do you remember who you sent that picture to?
A. No, ma'am, I don't. This was, this was a long time ago.
Q. Right.
A. I, I sent it literally within maybe three days of the autopsy, and then I haven't visited this autopsy since until we had the discussions a few days ago.
Q. Would that have been a South Carolina Law Enforcement Division investigator?
A. It was somebody who came to the autopsy.
Q. Somebody who came to the autopsy. Okay.
MS. GOODE: Beg the court's indulgence.
(A PAUSE.)
MS. GOODE: No further questions. Thank you so much.
THE COURT: Redirect?

MR. GIPSON: Thank you, Your Honor.

REDIRECT EXAMINATION BY MR. GIPSON:

Q. Now, Dr. Beaver, you said that -- we keep getting bogged down in this term offensive wounds or offensive wounds.

A. Yes, sir.

Q. You essentially said that with her left hand, she hit something or somebody hit her, correct?

A. Yes. That, that's a better way to characterize it, and I am sorry if I was unclear before.

Q. What kind of things in the back of the car could a person hit?

A. The door, I suppose. The window. I, I don't really, don't really know. I, I don't know the car, so I don't really know.

Q. And so based on your testimony, based on the cross-examination that was just offered, you said essentially the knocking knuckles, as some people call them, was what was injured?

A. Yes, exactly. The -- what we would call the first interphalangeal joint. This is the knuckles right here. Not the ones that are on your actual hand.

Q. Right.

A. But the ones that are on your fingers. The first one on your fingers. That's what's in ---

Q. Kind of these ones?
A. Exactly. Exactly. So, there. They could be but they're not completely characteristic of offensive injuries.
Q. Now, let's talk about the knife again. Is it possible to have a wound that's deeper than the length of the blade?
A. Yes, sir.
Q. Explain that to the jury, please.
A. So, the skin point is compressible. You can push in and it will give. So, when the knife is pushing against the skin, the hilt of the knife, the handle, pushes in on the soft tissue and allows the blade to go deeper into the soft tissues. So, it's, it's, it's fairly common to see wounds deeper than the length of the blade, particularly on the abdomen and on the chest area, but also on the thigh where, where there is a lot of soft tissue that can be compressed by the hilt of the handle of the knife.
Q. And you saw that in this case?
A. I did not see the hilt or handle mark, which is sometimes good for us to see, but that's what I measured it. When I put the probe in and I pulled it out and put it against the ruler, that's what the length was.
Q. All right, and how long would it take a person to

die from these wounds?

A. The injuries to the brain and the carotid artery are fairly severe and would -- the bleeding would be profuse and very rapid. So, I would say a matter of minutes. Maybe ten or fifteen minutes, maybe twenty.

Q. Okay.

MR. GIPSON: Court's indulgence, Your Honor?

So, that's all my questions. Thank you.

THE COURT: Any further questions?

MS. GOODE: Nothing further, Your Honor. Thank you.

THE COURT: You may step down. Thank you.

WITNESS: Thank you, Your Honor.

(THE WITNESS EXITS THE STAND.)

MR. GOLDBERG: Your Honor, may we approach the bench briefly?

THE COURT: Yes, sir.

MR. GOLDBERG: Thank you.

THE COURT: Everybody stand, please.

(OFF-THE-RECORD BENCH CONFERENCE.)

THE COURT: All right. Thank you all.

MR. GOLDBERG: May it please the court?

THE COURT: Yes, sir.

MR. GOLDBERG: The state calls Justin Martin.

JUSTIN A. MARTIN, BEING DULY

SWORN, TESTIFIES AS FOLLOWS:

CLERK: Please have a seat. State your full name for the record.

WITNESS: Justin Andrew Martin.

DIRECT EXAMINATION BY MR. GOLDBERG:

Q. Mr. Martin, please tell the jury where you're employed.

A. I work for the Fifth Circuit Solicitor's Office in South Carolina.

Q. How long have you worked for the solicitor's office?

A. Approximately four and a half years.

Q. All right, and what is your position there?

A. I'm a body cam and video analyst.

Q. Body cam and video analyst, what does that mean?

A. I collect and distribute body camera evidence from multiple law enforcement agencies within the district and distribute that evidence to appropriate staff in our office. And I also help with compatibility and Codex issues with surveillance video from various private and public entities. I provide redaction services for trial, and I also create demonstrations of video and audio evidence for trials.

Q. And you referenced surveillance footage. Does that include the likes of Stadium -- excuse me, Statewide

Security?
A. It does.
Q. And that's a business Mr. Shealey, who was here earlier this week, owns. Is that correct?
A. Yes, sir.
Q. All right, and as part of your duties, you review surveillance footage such as this?
A. Yes, sir.
Q. In some instances, does that include the editing of some of those videos?
A. Yes, it does.
Q. And how so?
A. I will take evidence that -- we often receive a tremendous amount of volume of video. Oftentimes we'll receive video that has nothing to do with the trials. Law enforcement gives us cameras that aren't necessarily on the scene of a crime. Sometimes the video files can be extremely lengthy, ranging from ten minutes to several hours along, when the action that pertains to the case really only consumes maybe only a minute or less of that camera footage.
Q. All right, and I'm going to show you State's Exhibit Number 3 and State's Exhibit Number 12 that are both already into evidence. Do you recognizes those?
A. I do.

Q. And State's 3 is what?
A. That is video from the Bird Dog business.
Q. And State's Exhibit 12?
A. That is security footage from Statewide Security that is owned by Mr. Shealey, I believe.
Q. All right, and approximately how much content is on the Statewide Security videos in State's Number 12?
A. I believe there is about 28 gigabytes of video, and that roughs out because of the system that they use or the different cameras that they use, it roughs out to be around twenty-five hours of video.
Q. So, if you were to watch every video on State's 12 all the way through, it would take approximately twenty-five hours? Is that what you're saying?
A. Give or take.
Q. All right, and additionally, the videos on State's 12, you've had an opportunity to review those, correct?
A. That's correct.
Q. As provided, were they in any sort of sequential time or location order?
A. They were labeled by an approximate area of the camera -- cameras' locations. They were not organized by time or by position, only by chapter, which is -- could mean a different camera location or a different timeframe in which that camera was recording.

Q. When you said they were labeled in some way, what identifying features were they labeled by? Not the chapters but the cameras themselves.

A. They might have the location of the corner, an intersection that the camera footage was recorded at, and that's, that's the most of it. Either it's that and then at the lower level it's a chapter number.

Q. All right, and did you have an opportunity to create a PowerPoint in order to try and streamline the information contained in those twenty-some hours of video?

A. I did.

Q. And that's as a result of State's 12 and State's 3?

A. Yes, sir.

Q. Okay. During the creation of this PowerPoint, what was the focus of what you were looking for in those videos?

A. A black Chevy Impala.

Q. Okay, and specifically as it pertains to the Impala, were you looking for times and locations of the Impala?

A. That's correct.

Q. On March the 29th of 2019?

A. Yes, sir.

Q. Were you able to, in fact, find what appeared to be

a black Chevy Impala?
A. Yes, I did.
A. Did you pull those clips and put them as part of your PowerPoint?
A. I did.
Q. And those were pulled from the originals provided by Statewide?
A. Yes, sir.
Q. Mr. Martin, when you do that, do you alter those clips in any way?
A. I do.
Q. How do you do that?
A. I reduce the amount of time on the clip. I cut -- I start a video clip at the beginning of when the action of the Chevy Impala is on, on camera, and then I generally cut when the action of the Impala is no longer on camera.
Q. Okay, and are there additional features that you might insert into the videos in any way regarding those clips?
A. That -- yes. I will sometimes duplicate the video later and create a highlight on the actual part of the Impala, especially in areas of the video where there's a lot of other acturin -- action and camera occurring on scene.

Q. So, you would highlight the activity of, in this instance, an Impala, right?
A. Yes.
Q. Is that what you're saying?
A. Yes.
Q. And also in various cameras, would you also then zoom in as well?
A. Yes. The technical term would be to scale and translate, but really I'm just stretching the pixels out so that it fills more of the actual screen space on the display, and then I reposition the video layer so that the area that the Impala is on screen fills the screen more fully.
Q. Even with the, the edits, as we'll call them, that you just described, do the clips included in your PowerPoint, are they a fair and accurate representation of how the originals appear?
A. Yes, sir.
Q. And do you also use maps in this presentation?
A. I do.
Q. What are those maps of generally?
A. The -- I made several maps with images with little triangles on them that indicate the view angle of the various cameras that the video was captured from.
Q. And what was the purpose of that?

A. The cameras throughout Columbia and the Five Points jurisdict are numerous. There are several of them. They are oriented in different positions, different directions, on different streets. The purpose of it is to show what angle you are seeing what footage from.

Q. The maps that you refer to, do those also provide a fair and accurate depiction of the locations that you're describing?

A. Yes, sir.

Q. And would use of this PowerPoint assist you in showing what's believed to be locations and times of what appears to be a black Chevy Impala?

A. It would.

Q. I'm going to show you what's been marked as State's 358 for ID. What is that?

A. That is a DVD presentation I put together and burnt onto a disk.

Q. And is that a DVD of the presentation that we've been discussing here in the last few moments?

A. It is.

Q. And the contents of this are the same as what you have been discussing?

A. It is the same content.

MR. GOLDBERG: Your Honor, at this time we'd offer State's 358 into evidence.

THE COURT: Says the defense?

MS. PINNOCK: No objection, Your Honor.

THE COURT: It's admitted without objection.

MR. GOLDBERG: All right. Thank you, Your Honor.

(DVD OF PRESENTATION MOVED INTO EVIDENCE AS STATE'S EXHIBIT NUMBER 358.)

MR. GOLDBERG: May the witness step down?

THE COURT: Yes.

MR. GOLDBERG: Your Honor, permission to publish to the jury?

THE COURT: Yes, sir.

MR. GOLDBERG: Thank you.

BY MR. GOLDBERG:

Q. Mr. Martin, I'm going to ask you to try to keep your voice up while you're down here so the court reporter can take down what you're saying.

A. Yes, sir.

(WHEREUPON, STATE'S EXHIBIT NUMBER 358 IS PLAYED FOR THE COURT AS DIRECT EXAMINATION CONTINUES. THERE IS NO AUDIO.)

Q. All right, if you would give the jury some sort of orientation as to what this map from State's 358 depicts?

A. This is the Five Points district where the incident occurred. This is Devine Street headed east down as it

merges here and turns into Garners Ferry Road, which is also 378.

Q. Is that also known as Sumter Highway?

A. Yes, sir.

Q. Okay, and you earlier referenced on these maps that there were some triangle shapes of some kind. Can you tell us what those are on, on this map?

A. Each one of these triangles represents a different camera on the same pod from Shealey -- or Statewide Security. So, oftentimes these pods will have three, four cameras on each device. One is facing due west. One is facing north -- or due east. One is facing northeast, and one is facing north, and this is at the intersection of Devine Street and Fort Jackson Boulevard.

Q. East of Five Points?

A. Yes, sir.

Q. Okay, all right, and do you have those clips from those cameras?

A. I do, and they're -- in the following slides, the first video, video is from this position. The second video is from this position. And third video is from this position.

Q. All right. So, this is looking which direction on Devine/Garners Ferry Road?

A. This is looking east on Devine Street before it turns into Garners Ferry Road in front of the Bi-Lo, across the street from the intersection of Fort Jackson Boulevard and Devine street.

Q. So, Sumter is that way and Columbia is back towards me?

A. Sumter is heading away from the camera.

Q. Okay.

A. Five Points is toward the camera. What we see here...

Q. What appears to be?

A. What appears to be a black Chevy Impala.

Q. Okay, and that's again heading towards Columbia?

A. That is headed toward Five Points at approximately 1:48 AM on March 29.

Q. And when you say approximately, why do you say that? You can let it play while you answer my question.

A. The boxes that house the various cameras, each location can have variations in the timing or the time -- the clock that burns this time into the video image, they can vary various amounts from each location because of possible power outages or other technical issues that might occur at that specific location.

Q. All right. Show us the next one, please.

A. This is from the same location, but the camera is

pointed slightly more to the northeast, and you see the same vehicle here moving forward Five Points. And again, same location: looking more northward on Devine Street, headed towards Five Points at 1:48:23 AM.

Q. Okay, and if you could orient the jury to this map?

A. So from the previous location, the previous camera angles that we looked at would be over here approximately 2 miles further east from the current triangle which is on the intersection of Devine Street and College Street. This camera is facing due east.

Q. And Five Points is where in this one?

A. On the left side of the screen approximately six blocks from this camera angle.

Q. Okay.

A. Again, the time on this one is -- appears to be approximately a minute and a half fast. You see the Chevron and the same body style as the Chevron Impala.

Q. All right, and then this map next shows what?

A. So, this is further down Devine Street.

Q. Same street that the ---

A. The previous video indicated.

Q. Okay.

A. This is further west on Devine Street at the intersection of Devine and Harden Street. These are two cameras located outside of Lucky's Bar. The first slide

that we'll see is from the north-facing camera facing Devine Street, and the second video is facing northeast directly into the intersection of Devine and Harden Street.

Q. So, the street that we're looking at here is which street?

A. Devine Street.

Q. Devine Street. Is this an example of one of those highlights that you were referencing?

A. Yes, sir. Car comes to a stop behind a champagne-colored car. Take note of the rims on this vehicle. They are five-spoke rims with splits in them. Car has some identifiable markers such as those rims. Has a shark fin antenna. The taillights grade down on the top part of horizontal lines toward the center of the trunk. It waits there. Continues forward toward the intersection.

This camera is located -- pans slightly more toward the right, as we saw on a previous map. You can see the champagne-colored car here as it waits to go through the intersection and Chevy Impala here waiting behind. It waits here for quite some -- for several minutes as the ---

Q. Now -- I'm sorry. You referenced the car in front of the -- what appears to be the Impala as the

champagne-colored car. Why do you reference other vehicles or other pedestrians, things like that, in these videos as you're describing?

A. When you get into a busy area like this, you start to have an easier time locating specific instances or certain vehicles because of continuity. Certain cars are moving across the intersection before this car passes into the intersection. You can identify that the cars are the same or the pedestrians performing similar actions in similar corners. That way you can tell that even if the time does not match up on the camera, you're still seeing this same period of time because the action is the same. You're just seeing it from a different angle.

Q. All right. Where does the black car go from here, the Impala?

A. It waits here until the light indicator turns green and it drives, continues west on Devine Street past Harden Street.

Q. Where, if you could in this camera angle -- approximately where is the Bird Dog bar located?

A. You could see -- it is hard to see from here.

Q. Is it kind of obstructed that that ---

A. It is.

Q. --- sign there?

A. It is. There is a parking lot here. The Bird Dog and Natural Vibrations would be obstructed directly behind this Five Points banner.

Q. Okay.

A. On this utility pole.

Q. All right. All right. So, we're going to talk a lot about this area, this Five Points area. Can you give the jury kind of an overview of some of the, some of the key streets in the area and how they all interact with one another?

A. Absolutely. Devine Street is the street we've been watching the Impala drive in on. It had a little hook it turns down here toward Saluda Avenue. This is Blossom Street. This is Harden Street, which goes north all the way to Richland hospital. This is Green Street. This is the Five Points fountain. Natural Vibrations and the Bird Dog restaurant are right here.

Q. On Harden Street?

A. On Harden Street.

Q. Right.

A. This is a parking lot that goes from Harden Street into Saluda Avenue. This is Yesterday's restaurant. We don't have it on here, but there is a bar called the Cotton Gin right here which we also have some video from.

Q. And so the next cameras are going to depict from the area of what was Yesterday's restaurant. Is that right?

A. Yes, sir. It faces northeast, the first camera, and the other camera faces due west.

Again, you can see the black Chevy Impala waiting at the red light. When the light turns green, it continues. You'll see a white truck pass headed east. And the next, again to show continuity, you'll see the white truck approach the stoplight. It will sit here for a moment. You can see the highlighted area here as the black Impala continues west toward Saluda Avenue. It comes to a stop at a stoplight there. It's also followed by a black car that pulls into the right lane beside it. It comes to a stop at the intersection of Devine and Saluda Avenue.

Q. All right, and what to the next?

A. And there's a large passenger bus that follows alongside. I mention these things to show continuity.

The next camera angle is facing south, southwest, looking down Saluda Avenue from the intersection of Devine Street and Saluda Avenue. It shows the median here and this intersection at Blossom and Saluda Avenue.

Q. And can you describe the set up of Saluda Avenue here? You mentioned the median.

A. Yes. There is a very large, wide median that separates the northbound lane and the southbound lane on Saluda Avenue. As it approaches the, the fountain in Five Points, there is a break in the median at the intersection of Devine and Saluda, and there's a break in the median at the intersection of Blossom and Saluda.

Q. And then the median, does it extend across Blossom Street into the neighborhood here?

A. Yes. That raised median continues into the neighborhood. There's a north and a southbound lane for Saluda Avenue.

Q. All right.

A. Moving south in that location as well.

Q. This is looking towards that neighborhood. Is that right?

A. Yes, sir, and there is the black car that was to the right, black Chevy Impala turning into the left turn lane, and the large passenger bus continuing on to Blossom Street.

Q. And the approximate time? I understand your caveat about not being able to say the exact time, but the approximate time at this point is what?

A. Approximately 1:57 AM, March 29.

Q. All right.

A. They sit here for a little bit of time waiting for

the light to change, but the Impala performs a U-turn and comes back north on the northbound lane on Saluda Avenue, gets into the right turn lane on Devine Street to head back east.

Q. And just to make sure we're oriented, so is that turning right here, is that headed back where it just came from on Devine Street?

A. That is accurate.

Q. Okay.

A. This is a previous camera angle that we just looked at as we watched the Impala move toward Saluda Avenue. We're going to use the same camera to show the action of the Impala moving back toward the intersection of Harden and Devine Street. And in addition, there's another camera angle on the side of the same building from the same group of cameras that faces directly across the street, of Devine Street.

And again, this one has been highlighted. Its right turn indicator is on as it approaches the intersection. This is turned slightly to the right near the same location. The right turn indicator is on. You see the rims match, and it turns right, back south onto Harden Street. These two cameras are near Break -- are near the Cotton Gin bar.

Q. And we, just for refresher, we were right here just

now, is that right, at the corner of Devine and Harden?
A. That is accurate.
Q. And the car turned ---
A. Car traveled from Devine Street, down Saluda, stopped here, performed a U-turn, came to a stop at this intersection, turned right back onto Devine, now has turned right back on South Harden.
Q. Okay.
A. It's been highlighted. You can see as it pulls past the Yesterday's building. It turns right onto Harden Street headed south. This is panned slightly to the left. It's the same car. Approached Blossom Street, Harden Street, turns on its left indicator and circles back around again, heading north again on Harden Street.
Q. Back towards Devine. Is that right?
A. That's accurate.
Q. Okay. Next one, please.
A. From here the car continues on past. It sits here as it waits for some other traffic to move forward. And this is the previous camera we just viewed. The black Chevy Impala will appear on the left screen, left side of the screen. Will continue northward on Harden Street. Will change into the right-hand lane. It's avoiding pedestrians. Then it comes to a stop at the

traffic light at Devine and Harden Street.

Q. What direction does it travel from there?

A. It continues north on Harden Street.

The next two camera angles we look at are outside of the Bird Dog restaurant. The first one is facing due east; the second camera is facing northeast.

Q. And so what you've described thus far -- correct me if I'm wrong -- is down in this area, and just now we witnessed here on the Harden Street block between Devine and Blossom. Is that right?

A. Right. Continued here and circled back around here and headed back north and is currently sitting at the intersection of Devine and Harden Street.

Q. Okay. So, this is looking back which direction?

A. This is looking southeast. That's the other car as it passes. It's north on Harden Street. This is a camera angle slightly turned left as it continues on Harden Street, and you'll see a gray truck here.

Q. And approximately what time is this?

A. This is approximately 1:59.

Q. Where is this camera in relation to the Bird Dog bar?

A. It is slightly to the -- if you were to stand and look at the Bird Dog restaurant, it would be to the right, but very ---

Q. To the right?
A. It's more in front of the Natural Vibrations ---
Q. Okay.
A. --- business, which is next door.
Q. So, from this angle, though, the Bird Dog would be to the right? Is that correct?
A. Yes, sir.
Q. Okay.
A. So, moving further up Harden Street, the previous camera angle we just viewed from is right here near this parking lot and the Bird Dog. Impala continues northward on Harden Street. It passes Green Street.

And at the intersection of College Street and Harden Street, the next several slides are from these three camera angles. This, we start at this angle. Two videos on that angle, then this angle, and that angle.

Q. And is there a particular interest there as a reference point in this area?
A. There's a Chick-fil-A that's very popular.
Q. All right.
A. In Five Points right here.
Q. All right.
A. Have some more raised medians.
Q. So, where would the Chick-fil-A be in regard to this camera box?

A. Approximately where you're standing.
Q. Okay.
A. But further back another 100 feet. You see we've got the gray truck following for continuity.

This is another angle facing more northward. You can see a black Impala turning on its turn signal, performing a third U-turn as it turns around and moves south on Harden Street headed back into the Five Points district.

Q. Back towards Devine?
A. Yes, sir.
Q. Back towards Bird Dog?
A. Yes, sir.
Q. Okay.
A. And this is just a zoomed version with a highlight to show here's the gray truck. The hatchback is behind there. The Impala performs a U-turn and continue south on Harden Street. This is turned right again slightly. You can see the same car continuing south. And pointed even more south, this angle from the same ---
Q. Same camera box?
A. --- camera box, yes, sir.
Q. Looking back towards ---
A. Back toward ---
Q. --- Bird Dog and Devine?

A. --- Five Points, yes, and then again for continuity, we'll see a white car following it now as it heads back toward Green Street.

The next camera is south of the previous camera looking north outside of Breakers Bar at the intersection of Harden Street and Green Street. You'll see the Chevy Impala continuing south on Harden Street, and the white car is still behind it. This camera is located outside of Natural Vibrations. It's facing northwest.

Q. And that is where in relation to Bird Dog?

A. It is directly next door to the Bird Dog restaurant. It faces northward. You can see Harden Street, a little bit of this parking lot from this angle.

Q. And the approximate time on this camera?

A. 1:59, 2:00 AM.

Q. All right, what does the black Impala appear to be doing here?

A. It's turning into the parking lot beside Natural Vibrations, and it appears that it pulls all the way through the parking lot to exit on the back end of the parking lot.

Q. You can go, enter and exit either side of that parking lot. Is that right?

A. From Harden Street or Saluda Street.
Q. Okay.
A. Or Saluda Avenue. Excuse me.
This camera angle is located on a camera box at Green Street and Harden Street. It faces south. It's near the Five Points fountain. The camera angle shows at a distance the parking lot that the black Impala just pulled into and down Saluda Avenue.
Q. It shows that parking lot from the opposite side of what we were just looking at. Is that right?
A. It shows it, yes. From the previous camera angle is the opposite angle, angle.
Q. So, where is Saluda Avenue and where is Harden Street here?
A. Harden Street would be on the left side of the frame. You can see the black Impala pulling through. In the center of this camera angle is the northbound lane of Saluda Avenue.
Q. Northbound lane. Which way is traffic flowing at this point on that section of Saluda Avenue?
A. Saluda Avenue, it would be coming toward the camera. You see the black Impala turns the wrong way onto Saluda Avenue. Has to pull off to the side slightly to allow oncoming traffic going the right way on Saluda Avenue room in order to pass, actually

Q. And so the correct lane of travel would have been where in relation to that?

A. It would be further to the right on the other side of this median closer to these buildings on the right, behind this tree here.

You can see it continues southward on Saluda Avenue to the intersection, and this is the zoomed-in version of that same video that gives you a better view as the black Impala pulls into the intersection -- or into the parking lot besides Natural Vibrations. Pulls through the parking lot and exits heading southward, southward on the wrong direction on the one-way section of Saluda Avenue, as it pulls off to the side so that the oncoming car can pass, and then continues southward towards the next intersection.

Q. Mr. Martin, to your knowledge, were, were you privy to review every single camera and every camera angle in all of Five Points?

A. I do not believe I was.

Q. All right. So, what does the next slide depict?

A. This is ---

Q. Where, where were we just before and where are we going?

A. Okay. The Chevy Impala came down Harden Street, turned right into this parking lot, and then exited left

onto Saluda Avenue heading the wrong way. And this is another camera facing northeast from the intersection of Devine and Saluda Avenue.

This is the car previously headed the proper way up the northbound way of Saluda Avenue. You can see how here an Impala is moving out of the way. As it passes, it allows -- it continue south on Saluda Avenue.

This is Devine Street again. Comes to a rolling stop and turns left, headed east again on Devine Street.

Q. Approximate time at this point is what?

A. 2:02 AM. Comes to a stop at a parallel parking spot in between the Yesterday's building and the TD Bank on Devine Street. Its brake lights turn off. It continues to sit here for approximately three and a half minutes.

Q. Continuously?

A. Yes.

Q. Does it ---

A. Lights do not turn on. No dome lights appear to turn on; the headlights don't turn on. It's ---

Q. Does it appear as though anyone gets in or out of the vehicle during this three-plus minute timeframe?

A. No, sir. So, this is a previously viewed camera angle on the side of the Yesterday's building looking west on Devine Street. The Impala has moved south on

Saluda Avenue, coming out at this intersection, turning left, and coming to a stop at one of these parallel parking spots right here on Devine Street. So, you'll see again Saluda Avenue is over here.

Q. And the vehicle ends up parking behind this line of cars somewhere. Is that right?

A. Yes. Somewhere obscured slightly by these pedestrians under this awning here, you'll see the car come to a stop in one of those parallel parking spots. You'll see the headlights disengage, and it will rest there for about three and a half minutes.

Q. All right. When does the car move out from this point?

A. I believe it's around two-oh -- it's a -- this camera is about two minutes slow -- or two minutes fast, I'm sorry. So, it would be around 2:04 AM.

You can see the headlights have turned back on. The Chevy Impala reenters traffic, heading east on Devine Street toward the intersection of Devine and Harden Street. Its left-turn indicator is on, and it moves into the left turning lane at that intersection.

Q. And again, you see the same features on the vehicle in terms of the rims and the -- the rims of the vehicle?

A. The shark and the shark's fin antenna. This is a previously viewed camera angle, again facing north on

the side of the Yesterday's building right at the intersection. The Chevy Impala will come in from turning left. See the rims? Have a lot of detail. It comes to a stop at the intersection in the left turning lane.

Q. Does the car go straight up Devine, or does it turn left onto Harden?

A. It turns north on Harden again, followed by this blue Jeep.

Q. Is the blue Jeep going to continue on behind the Impala?

A. It will follow the Impala north on Harden, Harden Street.

So, this next one previously viewed, again at the corner of Natural Vibrations near the Bird Dog looking northeast up Harden Street. This video has been slowed down to 25 percent normal speed.

Q. And the individual standing there in the middle of the frame?

A. It is the victim, Samantha Josephson. You can see the black Chevy Impala continuing north, followed by the blue Jeep.

Q. This is at approximately?

A. 2:06, 2:05. When it approached Green Street, you'll see that the blue Jeep continues north, passing

the Impala on the left. The Impala turns right onto Green Street. And this is just, again, to show the continuity. You saw before it was being followed by this blue Jeep. We will use that to show continuity again shortly.

This is a zoomed-in version of the previous video to show indication. The blue Jeep passes on the left. The Impala turns right onto Green Street.

Q. This is the first time that we've seen the Impala turn onto Green Street, correct?

A. That is accurate. This camera is facing north -- or southeast, mostly east, from the Breakers Bar area. There's a camera box here that faces down Green Street. You can also see down Harden Street to some extent. This is the blue Jeep again, showing continuity. The blue Jeep passes ---

Q. I'm sorry to interrupt. Why would continuity be necessary for this camera?

A. This camera's time is off approximately -- the time indicated on here is two minutes slower than the time on the other cameras.

Q. Okay.

A. You'll see that the Impala is turning right again on Green Street. This camera is facing south from the op -- or the adjacent corner on the same intersection.

Q. And again, the same issue here in terms of time and continuity on this camera box? Is that right?

A. This, this time is closer to the other camera box, but it's still not accurate.

Q. Okay.

A. Like most of the other ones. The Chevy Impala turns east on Green Street there. This is the Chevy Impala again highlighted. It turns right onto Green Street. It follows Green Street for approximately a block.

Q. And that's towards Martin Luther King Park?

A. That is, that is correct. It applies the brakes a few times. It turns slightly right and performs a fourth U-turn. It returns back to the intersection of Harden and Green Street, coming to a rest at the intersection here. The light's red.

Just to show that actually a little more clearly, here's a zoom version of the same video. Pulls eastward on Green Street and performs another U-turn.

Q. Once the vehicle gets back to that intersection, which direction is it going to travel?

A. It goes -- it gets to the intersection in the left turning lane to turn left, headed south again onto Harden Street.

Q. Back towards Bird Dog and Devine?

A. That is accurate. We viewed this camera angle earlier. It's facing northwest looking down Harden Street at the inter-- or at the parking lot beside Natural Vibrations and the Bird Dog.

Q. And the approximate time on this camera?

A. Indicated at 2, 2:08 AM. See here a black Chevy Impala pulling toward -- the same Impala turning back into the same parking lot.

Q. Does it drive all the way through again this time?

A. This time it stops halfway through the parking lot and backs into a parking space, as indicated by the headlights flashing up against the back of the cars across the parking lot.

Q. Are there some continuity vehicles in place here as well?

A. Absolutely. There's a white car, silver car. A gray minivan follows behind, followed by the black Chevy Impala pulling out of the parking space back into the parking lot. The gray van reenters traffic. The Chevy Impala.

Q. And what, if anything, did you observe about the positioning of the seats in that vehicle at this point?

A. The seat, the driver's side seat appears to be reclined significantly. This is also, out of all the surveillance I viewed, the time in which most light

enters the cabin of the vehicle.

Car turns right, headed south again on Harden Street. This is a previously viewed angle before that we've seen already but just a little later. It's turned slightly to the right of the video we just saw.

Q. Now, where are we in time on this clip as it pertains to the previous clip?

A. This clip has started three minutes earlier.

Q. So, that is the same -- this -- the time on this camera is the same -- linked to the same camera we just saw? We just ---

A. This is ---

Q. --- rewind the time a little bit? Is that right?

A. Exactly.

Q. Yeah.

A. This camera angle shows the full amount. After the black Chevy Impala follows behind the victim heading north on Harden Street, it follows this red car and it turns into Green Street. You can't see the U-turn.

Q. Right.

A. Previously shown.

Q. So, it's 2:06. Is that right?

A. Yes.

Q. And the Impala is about to pass on Harden?

A. Yes, heading north right here, followed by the blue

Jeep again.

Q. Okay.

A. It turns right onto Saluda -- or onto Green Street. I apologize. Performs a U-turn and come back out. Enters this parking lot, backs into a parking space, and then reenters traffic.

Q. So, is it fair to say that this is just showing Ms. Josephson during the time of the cameras that we previously watched a few months ago with the U-turn by Martin Luther King Park and all that?

A. Yes, sir.

Q. All right.

A. The next slide is two camera angles, the two that we just previously looked at, but I made a larger video canvas. The proximity of the cameras lent themselves to be put side by side. They don't match perfectly, but it is pretty close.

Q. So, these are, you said these are two previous camera angles we just saw. Is that right?

A. Yes, sir. Here you see a black Chevy Impala turning left into the parking lot. The white car enters the frame. The young lady comes out. Throws some garbage into the trash can. You see the Impala had backed into a parking spot on the left of the frame there.

Gray car, silver car tries to pull out into traffic. Is being blocked by the another car in traffic. Car comes to a -- slows down in front of Ms. Josephson. She attempts to enter it. It pulls off.

Q. And as she's doing that, as she's approached this silver car that ultimately pulls off after she attempted to get into it, where, where is the Impala during this?

A. The Impala is over here still in the parking lot behind the gray minivan.

Q. Okay. Once the Impala pulls out of the lot, which direction does it turn?

A. It turns right, headed south. It turns into this handicap spot right here.

Q. What, if anything, do you observe about the Impala as it makes the turn?

A. It jumps the curb right here with its rear wheel and pulls into the handicap spot here, and Ms. Josephson enters the rear passenger door of the car. It turn -- it puts -- the car goes into reverse. You see the reverse lights. It tries to back into oncoming traffic. Oncoming traffic passes. It attempts again to back into traffic, and it continues to southward on Harden Street.

This is the only video included in the presentation that was not provided by Statewide Security. It was provided by the business the Bird Dog; it is their

private company's surveillance video.
Q. And that was from State's Exhibit Number 3, correct?
A. Yes, sir.
Q. Is the time the same on this videos as the previous one?
A. The time on this video appears to be approximately a minute and a half fast comparatively to the last previous videos we have just watched. Samantha Josephson is sitting right here.
Q. The entrance to the -- and exit to the parking lot that we've been referencing in prior videos, can you describe where that is in relation to Ms. Josephson?
A. It is directly behind. The way that she is standing right now, slightly to the left. The sidewalk is here. The parking lot entrance is here from Harden Street. The parking lot is on the other side of this corner of the building.
Q. Thank you. Is the impala about to come in the frame?
A. Yes, sir. It will turn right into the parking lot behind her. There it is entering the parking lot, and again the white car, and the young lady comes out of -- to throw some trash away in the trash can nearby.
Q. Followed by which car?

A. Followed by a silver car followed by a gray minivan followed by the black Impala.

Q. This silver car, that's the one that she's going to attempt to get into. Is that right?

A. That is accurate, and you see the black Impala pulling back out into traffic and it jumps its rear passenger tire on the curb. Enters the handicap parking spot. Ms. Josephson enters the rear passenger door. Closes the door. The driver attempts to back into Harden Street onto oncoming traffic. Again going out into the right lane and then headed south on Harden Street.

The next camera angle is nearby the Bird Dog, and it's a camera that we have previously looked at looking more southeast.

Q. Back towards Devine?

A. Back toward Devine. You'll see the headlights as the Impala pulls into the handicap parking spot, then attempts to back up, stalled briefly because of oncoming traffic, and then it reenters traffic, passes this vehicle on the left behind the silver car, pulls to the intersection of Devine and Harden Street in the right-hand lane, comes to a stop at the stoplight.

This is another previously viewed camera angle facing north at the corner where Yesterday's is on

Devine and Harden Street. You see the silver car and the black Chevy Impala here in the right-hand lane. As the light turns green, it continue southward on Harden Street.

Q. Towards Blossom?

A. Towards Blossom Street.

This is another camera up high on the opposite side of the building on Yesterday's looking down into Santee and Harden Street. You'll see from this angle, for continuity purposes, a delivery car with a car topper moving southbound on Harden Street followed by a black Chevy Impala, a gray car, and a gray truck.

This is, this is another video from the Cotton Gin that we have viewed previously. This is the Five Points area. This is moving further south on Harden Street. The first camera we'll look at is the camera outside of Cotton Gin. and then there is another camera further south on Harden Street facing up Duncan Road. Again, we'll see ---

Q. So, this camera is looking away from Five Points towards Harden Street, correct?

A. Yes. This is Harden Street, and this is the intersection of Blossom and Harden Street. Harden Street continues up a hill past that light. Here's the delivery car with the car topper. Here's the black

Chevy Impala, the gray car, and gray truck, again showing continuity as it moves further south up the hill on Harden Street.

Q. Continuity being important on that video because the time there is ---

A. Several minutes off.

This is further down Harden Street looking at Duncan. This is Duncan Street and this is Harden. The camera is perpendicular.

Q. To the left on Harden is Five Points. To the right, is that towards the Rosewood area?

A. That is true, Rosewood Drive, yes, sir. Then you'll see car topper, delivery car. Chevy impala passes it on the left and continues south of Harden Street. And further continuity, you'll see a gray car and a gray truck here.

At this point, continuity became difficult to achieve because there's not as much density of activity on screen.

Q. Can you explain what that means?

A. The time of day that this occurred, there is not a lot of activity to be captured on camera. There's not a lot of cars moving around; there's not a lot of pedestrians on the street. So, I was not able to find continuity in between camera angles. This -- or

necessarily use just the timestamps on the video footage to find more video related to this Impala.

However, we did have access to Samantha Josephson's GPS data on her cell phone that indicated that the car had turned down here. Never made it to this intersection but had come down to Rosewood past this Publix supermarket here, and then south on Kilbourne, then back east to one of these roads here, back up self -- South Beltline up to this area, and that's -- and then I could not find any other.

Q. And you said that the car, that you did have information that it traveled on Rosewood Drive. Is that right?

A. Yes, sir.

Q. And then you said down South Kilbourne?

A. Yes, sir.

Q. And according to this map, what part of Columbia is that in?

A. This is the Rosewood district.

Q. Okay.

A. This is Five Points. So, we've got it traveling so far to about here, and then we -- I was able to find some additional clips based off of her GPS data from her phone.

Q. All right.

A. The next two camera angles is outside of the Publix shopping center on Rosewood Drive. The first camera is facing west; the second camera is facing east. This is the black Chevy Impala here at 2:14 AM. Here's a gray SUV and a red car stopped at the intersection. The light turns green. Then all cars proceed east on Rosewood Drive. This is the black Chevy Impala again.

The next angle is opposite of that corner. You'll see all of the cars moving west.

Q. East.

A. East. My apologies. Continuing down Rosewood Drive.

This next camera is on South Kilbourne Avenue at the intersection of Live Oak Street.

Q. And as we look at this map, you said the next camera is here on Kilbourne, South Kilbourne?

A. Yes.

Q. Where is that in relation to South Ott?

A. South Ott Street is further to the west by, I would say, 400 feet. Oh, there it is, yes. So, it runs at an angle. It runs from northwest to southeast and then turns and runs more in a north-south orientation.

Q. Okay.

A. I believe the time on this is off by -- is fast by about two minutes. It should be closer to 2:18. You'll

see it's following this car. Turns left onto Live Oak Street. That intersects with South Beltline Boulevard.

Q. All right, and this area, South Beltline, the next camera angle is where?

A. So, Live Oak is right here, right at the very bottom of the screen. South Beltline Boulevard runs up into an intersection with Rosewood Drive where we have two camera angles. Beltline continues north by Midlands Technical College.

Q. And I'm sorry. If you could go back one second? Just to help orient where we are in Columbia, where is this as it pertains to the area where we saw the Impala coming into town on Devine Street earlier? I know it's not on the map that ---

A. Just off this map near this Staples business right here. The cameras would be approximately on the top edge of this monitor is the first set of cameras that we found.

Q. So, then which direction from here would Columbia and Five Points be and which direction would Sumter be?

A. Columbia and Five Points would be to the west; Sumter is to the east.

Q. Okay.

A. Five Points is northwest.

Q. All right.

A. This camera angle is facing east on the corner of Rosewood Drive and Beltline. Black Chevy Impala crosses the intersection.

And then another angle looking more northward, the Chevy Impala moving north on Beltline Boulevard.

Q. Does it continue on to Devine Street?

A. It does not.

Q. What does it do prior to getting to Devine?

A. We have another camera at the business of Checks Plus, outside of Checks Plus looking northwest from the Checks Plus building looking across Beltline Boulevard. It was driving north on Beltline Boulevard and performs another U-turn. Turns south.

Based off of Samantha Josephson's GPS data, I was not able to locate any more camera angles in the Rosewood area. All of the provided video that I went through had no more instances from Jamantha's -- Samantha Josephson's phone to indicate that we could find any. I looked through several of them. I was not able to find any.

Q. All right, and what are we looking at on this map?

A. The defendant's phone indicated that at a certain timeframe, around 3:20 AM, that the phone was traveling east on Garners Ferry Road. This is a map of where we have three cameras at the intersection of Garners Ferry

Road, which is 378, and Veterans Parkway, I believe. There's three angles. The first view is this one. Camera two and camera three in that order.

Q. And so to orient everyone, Five Points. We saw Devine Street earlier, that's correct, on the ---

A. Yes.

Q. --- car's way into town?

A. Garner -- Garners Ferry Road turns into Devine Street at the intersection of Rosewood. Devine Street continues all the way into Five Points.

Q. Okay, and so we're now down on the other side of that area, heading back out eastbound towards ---

A. Toward Sumter.

Q. Okay.

THE COURT: Mr. Goldberg, are you at a stopping point?

MR. GOLDBERG: We are just about done.

THE COURT: Okay.

BY MR. GOLDBERG:

A. And this is the car here, the black Chevy Impala moving east. And again from this angle, you'll move from frame left to frame right. And again this camera looks east. Black Chevy Impala is headed off Garners Ferry Road eastbound. This is the last of the video we were provided that I was able to find the Chevy Impala.

Q. All right, and finally, jumping back in time, this is the Bird Dog video. Is that right?

A. That is accurate.

Q. All right, and based on your review of all the cameras that we've discussed and the cameras that are in evidence, after this camera, this timeframe, is there ever another point in which Ms. Josephson appears on any camera at any point?

A. I was not able to see. Due to the low light and all the camera angles, I was not able to see Ms. Josephson again.

Q. So, this is the last time she was seen?

A. Yes, sir.

(PLAY OF VIDEO ENDS.)

MR. GOLDBERG: Mr. Martin, thank you. Those are all my questions.

WITNESS: Yes, sir.

THE COURT: Ladies and gentlemen, we will break now for lunch. Return at 2:30. Please do not discuss the case.

(THE JURY EXITS AT 1:16 P.M.)

THE COURT: Sir, you may step down. Please do not discuss your testimony with anyone during lunch.

We will be in recess until 2:30.

(OFF THE RECORD.)

THE COURT: Okay, we need our witness back.

You can bring the jury.

(THE JURY ENTERS AT 2:35 P.M.)

THE COURT: Madame Forelady, how is the jury doing?

JUROR: So far, so good. So far, so good.

FOREPERSON: We're good.

THE COURT: When I say Madame Forelady, I'm speaking to the forelady as well, but I'm glad to know that all of you are doing fine. So far, so good.

Cross-examination.

MS. PINNOCK: Please the court, Your Honor?

THE COURT: Yes.

CROSS-EXAMINATION BY MS. PINNOCK:

Q. Hi, Mr. Martin.

A. Hello.

Q. So right before we broke, Mr. Goldberg asked you if -- with that last video that he played with Ms. Josephson getting into the vehicle, that was the last time that she was seen on video, correct?

A. Out of all the videos that I reviewed, that is the last time that she is in frame.

Q. Okay, and you spent a lot of time with these videos. Is that fair to say?

A. Yes, ma'am.

Q. When did you create that PowerPoint?

A. Over the course of the past three weeks.
Q. Okay. Do you recall when you handed it over to the solicitors?
A. I gave them a copy of it about two weeks ago, and I made some adjustments as I continued to review more video just recently, today.
Q. Okay. Now, you mentioned a few times when speaking to Mr. Goldberg that you were able to do, you know, your kind of, you know, clip making and your analysis based on the videos that you were provided.
A. Yes, ma'am.
Q. Right? You were only given one video box from Saluda Avenue, right?
A. Yes.
Q. Okay.
A. There is one video box at the intersection of Devine Street and Saluda ---
Q. Okay.
A. --- that I received video from.
Q. Okay. You didn't get the second one that was further up near the parking lot?
A. I did not, not on, not on Saluda Avenue.
Q. Okay, and with all the videos that you reviewed, never once did you see Nathaniel Rowland.
A. I could not make out or identify the person driving

the vehicle, no.

Q. Okay. So, you never see Nathaniel Rowland, correct?

A. Not in the video.

MS. PINNOCK: Begging the court's indulgence. Thank you. I have nothing further.

THE COURT: Any redirect?

MR. GOLDBERG: No, sir.

THE COURT: All right, thank you, sir. You may step down.

(THE WITNESS EXITS THE STAND.)

THE COURT: Next witness.

MR. GOLDBERG: Please the court, Your Honor? At this time, the State of South Carolina rests its case.

THE COURT: All right, ladies and gentlemen, that is the state's case. We will need to have you go to the jury room while I discuss some matters with the lawyers. Please do not discuss the case.

(THE JURY EXITS AT 2:39 P.M.)

THE COURT: Any matters of law?

MS. PINNOCK: Yes, Your Honor. May it please the court? At this time defense would renew our pretrial objections, specifically but not limited to our motion to suppress based on the illegal stop of Mr. Rowland's vehicle on March 30, 2019, and our ongoing objection

with every single piece of evidence that was introduced into the record that was a product of that stop.

We would also renew our objection -- all objections we've made throughout the trial, all of our motions we've made throughout the trial. And Your Honor we would respectfully request at this time direct a verdict in favor of Mr. Rowland.

Your Honor, viewed in the light most favorable to the state, I do not believe that a -- that the case should be delivered to the jury. The standard is, you know, substantial circumstantial evidence in order to make it to the jury for deliberations. Your Honor, it's a circumstantial case. I think we, we can all agree on that. I do not believe the state has offered the court any information or the jury any information to consider whether or not Mr. Rowland was the person who committed the killing of Samantha, Samantha Josephson or who was driving the car. We have circumstantial evidence that was submitted to the court for consideration about actions after, after the fact but not at the time that the, that the killing took place. So, Your Honor, I would ask at this time that you grant a directed verdict in favor of Mr. Rowland.

THE COURT: Response by the state?

MR. GOLDBERG: Thank you. If it please the court?

Bring them on.

(THE JURY ENTERS AT 3:08 P.M.)

THE COURT: Recognize the defense. Ms. Pinnock.

MS. PINNOCK: Thank you, Your Honor. May it please the court? At this time, the defense rests.

THE COURT: All right, ladies and gentlemen, the defense has rested. That means you have heard all of the evidence in this case. What we have remaining is the closing arguments by the lawyers, my jury instructions, and then your deliberations.

Due to the time of day and the projected length of some of these things, we are going to give you the good news of stopping for the day. We are going to adjourn for the day and start back at 9:30 tomorrow morning.

Please do not discuss the case. Please do not allow anyone to discuss it with you or in your presence. Please do not get exposed to anything in connection with this case through the media, and we'll see y'all tomorrow morning at 9:30.

(THE JURY EXITS AT 3:09 P.M.)

THE COURT: Before we break for this period of time, I've charged the jury in murder cases a couple of times over the past two months, and the charge has been the same as requested by Ms. Pinnock except an additional sentence is at the end says:

THE COURT: All right. Well, let's bring in the jury.

(THE JURY ENTERS AT 9:49 A.M.)

THE COURT: Good morning.

JURY: (*EN MASSE*) Good Morning.

THE COURT: Madame Forelady, members of the jury, welcome back. You have heard all of the evidence. It's now time for closing arguments.

By the state.

MR. GOLDBERG: May I please the court?

THE COURT: Yes, sir.

MR. GOLDBERG: Ms. Pinnock, Ms. Goode, Mr. Pillinger, Your Honor, ladies and gentlemen, twenty-one-year-old Samantha Josephson did not deserve this. She was a daughter, a sister, a friend, a girlfriend. She was a future law student. She was someone who had her whole life in front of her, all of it there for the taking. She didn't deserve this. Despite being all of those things, she was literally taken and cut down before the prime of her life.

Stab wounds from her face to her feet: ear, head, neck, shoulder, arm, her back, leg, her feet. She was dragged into the woods and left alone, covered in her own blood, to rot. A piece of trash. She didn't deserve this.

Ms. Goode told you in her opening statement that the number zero was going to be important in this case, and I couldn't agree more. There is no one else responsible for Samantha Josephson's kidnapping and murder. There are zero legitimate suspects other than Nathaniel Rowland implicated by the credible evidence in this case. There are no other reasonable interpretations of that evidence, zero.

What has been presented to you over the last week are hundreds of pieces of evidence, piece after piece after piece after piece of evidence, and your job, your job is now. Your job is to take all of these pieces, all of these facts. Use your common sense and see the clear picture of what happened March 29, 2019, and that picture will show you that Nathaniel Rowland must be held responsible for his actions, and they were his actions, mind you, his choices.

Don't get distracted from the facts of this case. Nathaniel Rowland kidnapped Samantha Josephson, Nathaniel Rowland brutally murdered Samantha Josephson, and Nathaniel Rowland literally left her to rot. It was cold, malicious, and intentional, and he must be held responsible for those actions.

Ladies and gentlemen, this case is not about old Bud Light cans or cigarette butts. It's not about the

reasons why Maria Howard decided that she had to drive his car. It is not about phone calls the defendant may have made from one phone to another two weeks before all this went on, and it is certainly not about unrelated, unidentified individuals. This case is about holding Mr. Rowland responsible for the cold-blooded, malicious, and intentional acts that he committed when he murdered and kidnapped Samantha Josephson March the 29, 2019.

I want to take just a moment and talk to you about the law in this case. When I'm done and the defenses is done, Judge Newman is going to tell you what the law in this state is. He's going to tell you to apply that to the facts in this case, so I'm going to give you a little bit of a preview of that. If I say something different from what the judge tells you, you take his word as he gives it to you.

Mr. Rowland is charged with murder. It is perhaps the shortest definition of any crime we have in our state. It is quite simply the unlawful killing of another with malice aforethought, the unlawful killing of another with malice aforethought. We know she's dead, and we know she didn't kill herself. So, we've got the killing of another.

The question is what is malice? What does that mean? Malice is hatred; malice is ill will. It's

defined as a heart devoid of social duty, somebody who is fatally bent on mischief. Also described as being wicked or a depraved heart.

The evidence of malice in this case is overwhelming: over 100 stab wounds; virtually every drop of blood spilled from her body; and left in the woods to rot. It doesn't get more malicious than that.

The second charge, kidnapping: knowingly, a person knowingly seized, confined, kidnapped, abducted, or carried away by someone. Now, regardless of the fact that the video shows that Samantha Josephson freely got into that car -- that's clear -- the moment that she couldn't get out of that car, she was being kidnapped, and that's what the law says. She was confined. She was unable to get out of the car, and how do we know that? Child locks were on, and in this car, in this Impala, the defendant's Impala, when you hit that button for the child lock to come on, it locks the rear doors and windows.

There was no way out. How do we know that she tried to get out? Well, she told you. She put that footprint on the window; she tried to kick her way out because he wouldn't let her out. She was fighting to get out of there as he drove her off to New Zion.

The third charge, possession of a weapon during

the commission of a violent crime. Quite simply, if somebody uses or displays a weapon such as a knife during the commission of a violent crime like kidnapping or murder, then they are guilty. And I submit to you that if you believe that Nathaniel Rowland used a knife when he killed and/or kidnapped Samantha Josephson, he's guilty of that charge, too.

You've heard a little bit about reasonable doubt, and you're going to hear more about that from the judge. So, I'm going to talk to you for a minute about what reasonable doubt means. The State of South Carolina has the burden of proof in every criminal case, and it is our job to prove to you beyond a reasonable doubt that the defendant is guilty. Now, that doesn't mean that we have to prove our case beyond any doubt or all doubt but a reasonable doubt.

So, what does that mean? What is a reasonable doubt? The judge is going to tell you that it's the kind of doubt that causes a reasonable person to hesitate to act. If you put it another way, proof beyond a reasonable doubt is that which leaves a person firmly convinced of the defendant's guilt. If you are firmly convinced of the defendant's guilt, then you must find him guilty.

Ladies and gentlemen, in this case, perhaps more

than any other, not only has the state welcomed that burden. We have met that burden, and the evidence supports that. We've done so by giving you an avalanche of direct and circumstantial evidence.

The judge is going to tell you that direct evidence, that's someone who has actual knowledge of something: they see something; they hear something; they come into court and they tell you about it. Circumstantial evidence, evidence that you can infer from a series of facts that lead to a conclusion.

Solicitor Gipson told you in his opening statement, he gave you a great example of circumstantial evidence. And if you recall, he told you about how you might be in this room where there's no windows, and when you came in here. it's a beautiful, bright, sunny day and a blue sky and when you walk outside, you see icicles. You see somebody's built a snowman. You see tire tracks through white powder. You put those chain of facts together, and you conclude that it snowed while you were in here. You didn't see it, but you know that it did.

The law makes no distinction whatsoever between direct evidence and circumstantial evidence. There is no distinction between the weight or the value to be given to either one.

Another thing you're going to hear about is

credibility. It's up to you to decide whether the state has met its burden of proof in this case, and part of the job that you have to do when you do that is you have to judge the credibility of the witnesses that take the stand, or the believability of the witnesses. It's just another way to look at it.

So, how do you do that? I submit you do that every day of your lives. When you go to work, you're at the water cooler or at the coffee maker, when you're on the elevator, if you're walking down the street, even when a witness is on the stand, somewhere inside of you, you are trying to decide is this person credible? Are they believable? Is what they're telling me the truth, and that's your job to decide that, and you've got a lifetime of experience in deciding if that's the case.

But in addition to that experience, a couple of other things you can look at. What's the demeanor of the person like when they're testifying, when they're telling you their story? Was their testimony consistent? Was it corroborated by other evidence? Is there other evidence to support or corroborate what the witness has told you?

Judge Newman is the judge of the law in the case, but you, you are the judges of the facts. With that, in judging credibility, you can judge all, some, or none of

what the witness tells you. You can believe all, some, or none. That's up to you. That's your role and your decision.

Now, the defense has tried to draw your attention away from the facts. They've tried to get you to think about everything, everything in this case other than the evidence that points to Mr. Rowland. It reminds me of a story that an old teacher of mine used to tell, and it's one of those stories that gets passed down from teacher to student, teacher to student, but I think it fits in this scenario.

There's an older man walking down the street, and he's a man who doesn't have much, by the way, of means. He's got a few dollars to his name, and that's about it. And he comes walking up the street and he gets to the corner. He's waiting for the light to change so he can cross the street. And as he's standing there, he looks up and sees a billboard, and it's one of those flashing billboards with a big head, big phone number, and it's for this local defense attorney in town. And when he looks back down, he sees the same face right in front of him. In fact, it's the man from the billboard standing right next to him on the street corner. They stand there waiting for the light to change, and the old man looks down, and there's a mud puddle, and in that puddle

he sees something. Turns to the defense attorney. He says look at that nice, new, shiny silver dollar. Defense attorney takes one look at him, looks down at the puddle, takes his umbrella, sticks it in the puddle. Stirs. The sand, the mud, the silt all comes up from the bottom and puddle's now cloudy. And he looks at the old man and he says what silver dollar and walks off.

Remain focused on the evidence in the case. Do not get distracted by issues that are unrelated. What we're going to do now, we're going to go through some of the facts of this case, and we're going to give a review of what you've seen and what you've been told.

We know that Samantha Josephson and her friends went out Thursday, March 28, 2019. We know that they hung out at the Hub, they had some drinks, and they went downtown.

We know that she missed Greg; she missed her boyfriend. He didn't live in the same town anymore. He lived down in the Charleston area two hours away. They didn't see each other as much as they had when he was at school before he graduated, but they talked. They talked all the time. They talked throughout that night, and she was begging him to come visit, but they had plans that weekend, and so he stayed in the Charleston area.

So as the night wore on, she wanted to go home. That's all she wanted to do. She wanted to go home, but she never got that chance. She tried to do it right. You heard from Marcus Williams, the Uber driver. He came in and told you that he got a call and they missed each other, and that that happens from time to time. They just missed each other. He had to cancel the ride. She tried to do it the right way.

What she didn't know is that the defendant's 2017 black Chevy Impala -- and it is Nathaniel Rowland's black Chevy Impala -- was circling, waiting, lurking, multiple U-turns throughout Five Points, as you saw Mr. Martin talk about yesterday. Driving the wrong way down Saluda Avenue mere minutes before the abduction.

(WHEREUPON, A DVD MARKED AS A STATE'S EXHIBIT IS PLAYED FOR THE JURY AS CLOSING ARGUMENT CONTINUES. THERE IS NO AUDIO.)

MR. GOLDBERG: What happens just a few minutes after that as Samantha Josephson is standing on this corner all alone? What do you see happening? This Chevy Impala, Nathaniel Rowland's Impala comes driving by as she's standing by herself. Circling, lurking like a shark. Not only does he see her that time as he drives right by her. Just two minutes later at 2:08 as he approached again, she is still by herself as he's

coming right at her and can see her right in front of him. Pulls into the parking lot, immediately turns around, and as soon as these cars come out of the way, he starts to make his move.

Now, an interesting thing about this video, this silver car. As you recall, this silver car comes around, and Ms. Josephson tries to get in it. She thinks that's Marcus Williams; she thinks that's her Uber right here. And as she approaches that car, where is Nathaniel Rowland's car? Right there. Right in his line of sight, again looking right at her trying to get into a vehicle, seeing that she can't because it's the wrong car. Seeing that she is confused, and he's lurking and he's waiting for her.

As the car pulls up right here, right here, what do you see? She looks back at him. Right there, she looks back at him. They see each other. He knows she's just tried to get in the car. She looks at the car. Again, this must be the car, she's thinking. If it wasn't the other one, oh, here's the black car. This has got to be it. She looks.

Look at that video for yourself. There is one person in that car, and there is a seat, a driver's seat reclined back. You can see it through the silhouette of the back window.

What does he do next? He gets so excited that the opportunity has finally presented itself that he jumps the curb. He's been driving around for fifteen minutes, pulls four u-turns, driven down the wrong way of the road, and he jumps the curb because there she is. Then she gets in the car.

What happens next? Was does a shark do when it catches its prey? Take the victim below the surface. Out of Five Points, out of view to a familiar place where the carnage can't be seen and only to resurface later when the coast is seemingly clear. And after this video, she was never seen alive again.

(END OF PLAY.)

MR. GOLDBERG: For twenty minutes or so after this, when his phone moves, her phone moves. That was the testimony you heard from the phone experts. Their phones were in the same locations at virtually the same times: Five Points, her phone; towers in Five Points, his phone. Again, moving away Harden Street towards Rosewood: her phone, his phone. Now we're in the Rosewood area, which we know that his sister lives in the Rosewood area near Hemphill: her phone, his phone until ultimately her phone can no longer be tracked in the area of South Ott and Montgomery.

And you heard testimony from both Greg and Teagan

that corroborates that. They were trying to track her themselves on the Find My Friend ap, and they did track her until South Ott and Montgomery just a few blocks away from where Mr. Rowland's sister lives in Rosewood when her phone stopped. He drove to an area he's familiar with, the Rosewood area. You heard from Destiny Cuttino. She told you about how his sister lived in that area, and she'd been over there with him.

After riding around generally in the area for a while, what does he do next? What would, what would he do next? Find another familiar place, and it finally comes to him: drive to a familiar place. New Zion, New Zion, where his parents live just down the road and where the body is found. And again corroborated: his phone in the area of where the body was located between 4 and 4:30 in the morning.

Let's talk about this crime scene. This was a straight body dump, an attempt to get rid of the most incriminating evidence against him. There were no signs that the crime occurred there. No blood anywhere other than on her body. Her clothes, all of, all of these clothes soaked in blood, her blood. And her shoe broken, bloodied, torn just like her.

This was a remote area: farmland, fields, a few houses. It's off the main road. You heard from Mr.

Lee, the hunter; you heard from Mr. Bubba, the DNR officer; and you heard from Investigator Huckaby. This is off the main road. You got to go on two roads, dirt roads, to get here. This isn't even really a road. Everybody keeps calling it a farmers access road because they don't even know what else to call it, and she's in the woods removed from that road surrounded by brush. And the testimony in this courtroom was that no one, no one would go there if they weren't a local. They wouldn't even know how to find it; they wouldn't even know how to get there.

Mr. Bubba told you that he's lived in that area his whole life, sixty years. He's been a DNR agent for twenty-six years and that in twenty-six years of patrolling that area which is about a mile from his house, he has never seen anyone in that area who wasn't a local. And he lived a mile from this crime scene, a mile from the body.

And who lived across the street from him? Who did you tell him -- who did he tell you lived across the street? The Rowland family. And Destiny Cuttino told you that she had been to New Zion with Nathaniel Rowland to the family home as well several times.

Investigator Huckaby, he told you about how Clarendon County responded, and then ultimately SLED

takes over the investigation, but he also told you something else interesting. He said they canvassed the area. They tried to see if any witnesses saw anything. Nobody saw anything, but what else did he do? He went up to the mini mart. They went to the store a couple miles away, closest business around, and they checked the video from there, and they couldn't tell what was on the video. They saw some cars. Video was not a good quality, and they couldn't tell whose car or what car it was. But I'll tell you this. If someone was looking for a good place to get rid of a body, it's a pretty good spot. Not near a main road. Hard to find. Brush.

Think about this. Ander Lee, the man who came in here and told you that he found the body, what did he tell you? He told you that he and his friend Ryan went hunting earlier that morning, and they went to a different location. They went up in Turbyville miles away first, and why did they leave there? They didn't find anything. They didn't see anything they were hunting for. If they had been successful in Turbyville and found what they were looking for, whatever they were hunting, turkeys, there is no telling when or if Samantha would have ever been found.

Let's talk about phones for a minute. You heard a lot of testimony from Agent Dove and Mr. Grabsky about

the phones in this case. And they told you just about everything you could possibly want to know about how cell phones work. More importantly, they told you about Mr. Rowland's phone and Ms. Josephson's phones tracking together as they leave Five Points, as I've talked about earlier. And again, they tell you about it going to Mountainbrook -- excuse me, not Mountainbrook -- Rosewood where her phone tracked, consistent with the Find My Friend tracking that Greg and Teagan did. They then track his phone back all the way to Sumter, through Sumter, to New Zion, and then to Columbia. This was from the defendant's Verizon iPhone.

They couldn't get GPS location on it because they couldn't get in the phone. It was passcode protected, but Agent Grabsky, or Mr. Grabsky now, he told you about the tower data. And while that phone didn't have minutes on it -- he couldn't make phone calls on it, he could use Wi-Fi. And what did Grabsky tell you? When there's Wi-Fi, your phone is bouncing on those towers. Your phone and that tower, they're talking. Whether you're using the phone or not, it's talking and it's tracking, and it tracked him from Columbia up 378 through Sumter to the area where the body was found, and then right back through Sumter, except this time there was a stop in Sumter.

(PLAY OF STATE'S EXHIBIT RESUMES AS CLOSING ARGUMENT CONTINUES.)

MR. GOLDBERG: Nathaniel Rowland's phone number: Broad Street, Sumter. Broad Street, Sumter, Nathaniel Rowland's phone. We know that it tracked to that area. What time? 5:45 a.m. What happens at 5:45 a.m.? The ATM in Sumter, 5:47 a.m., Samantha Josephson's card is attempted to be accessed. Unsuccessfully, mind you, but pay attention to what the person's wearing: the leather jacket just like the leather jacket found in his car; the gloves on his hand, just like the gloves found at Mountainbrook, one in the laundry, one in the trash.

The drawstrings, the Nike hoodie drawstrings. You can see the drawstrings right there, the white string. Those are everywhere in this case. You heard testimony about him wearing that Nike shirt with the drawstring before and after Thursday and Friday. He had been wearing that for days.

The dark pants. There was a long, tan shirt sticking out from underneath the clothes that was found in the Mountainbrook trash, and then, of course, the red and black slides.

The next ATM. Again now we're in Columbia, 6:52 a.m. Here, ATM, Columbia, Hampton Hills 6:48. Same timeframe. Again trying to access her card. What do

you see on the face this time? It's a little different this time. This time there's something covering it, and it looks like dollar bills: the money bandanna, the bandana that he was wearing when he got pulled over on Saluda Avenue twenty-four hours later. The same one that Destiny Cuttino said that he had seen -- the same one that she had seen him wear before.

(END OF PLAY.)

MR. GOLDBERG: He then tracks back -- the phone records track him back to Mountainbrook, where he stays for a while, through Columbia, taking her to work. Taking Maria to work. Back to Mountainbrook for rest, and then the phone tracks south to Cellular City to Monticello Road that Mr. Williams, Officer Williams told you about because Mr. Rowland, whom he identified, came in and tried to sell a phone.

But in between there, as I mentioned, he's at Mountainbrook, Maria Howard, Maria Howard's residence. So, let's talk about Maria for a few minutes, and let's think about that word I told you earlier about credibility, and what's something that you can use to help judge credibility? That's corroboration.

How do we know that Maria is being truthful? She told you that she had met Mr. Rowland in Five Points years earlier. That he always talked about Five Points.

He said it was lit, a place to have a good time. Destiny Cuttino also told you that she had been to Five Points with Mr. Rowland. Two different people, two different people telling you that they've been to Five Points with him.

She also told you that she was trying to evict her roommate. This letter was found in Mr. Rowland's car. This is the eviction letter that Maria Howard gave her roommate. It references on it [redacted] Mountainbrook Drive, unit C.

What else does she tell you? She tells you that Thursday night before they go to bed, he's wearing the Nike hoodie with the drawstring and the dark pants. That's corroborated. We know he wears that because you see him on video at the Wendy's the next day; you see him on video at the Cellular City the next day wearing the exact same clothes.

She tells you that she goes to bed about 1:30, and then we know from the phone records that not long after that, his phone is on the move from Mountainbrook to Five Points. And then she told you she woke up to get ready for work, and where was he? Where was Nathaniel? He wasn't there. She got up. She looked around. She'd said that he went to sleep down on the couch downstairs. She went downstairs. She looked around. She looked in

the bathroom. He wasn't there.

How do we know that? How do we -- how can we corroborate her story that she looked for him and he wasn't there when she woke up? The text message to Nate, the 862 number at 5:31 a.m., 0531: WYA. Where you at? Would she have texted where you at if he was somewhere in her house at that point in time at 5:30 in the morning where he was supposed to be?

She follows it up because she doesn't like being late for work. She told you that. 7:01 a.m., text message to Nate: Babe, I am late as F for work. And she told you that he was late coming back the house -- to the house to pick her up. That's corroboration of her story.

When he finally shows up that morning late, again he's wearing the same clothes: the Nike hoodie with the drawstrings, the dark pants.

She's upset because she can't find her visor, her work visor for McDonald's; she can't find her visor. She asks him about it because she knows she left it in the Impala. She told you she put it in the back window because she didn't want to forget it going to work. She put in the back window of the Impala. She asked him about it, and what does he say about it? He says it's in the country.

The country? New Zion. Why is it in the country? Well, it had blood on it, he said. She asked him; she pressed him. Why is there blood on my visor? He won't tell her. Mind your business, he said. And we know that the visor is eventually found in the Impala in the trunk with blood on it, and you'll have that back there in the jury room with you.

She tells you that once she discovers there's blood in the car, she also sees that a sheet has been placed in the car, a white sheet will blue markings on it and blood on it covering -- she describes very particularly it covers the headrest, the driver's headrest, and then back, into the back seat.

(PLAY OF STATE'S EXHIBIT RESUMES.)

MR. GOLDBERG: If you look closely at this, and you can play this in the jury room, there is a white sheet covering the headrest and going into the back seat of that car as he goes through the drive-thru. Cellular City, that's the view from the Cellular City parking lot. 11:17, 11:19 a.m. Friday the 29th, what do you see in the back seat? The white sheet. Corroboration of her story. And when she asked him about it, when she asked him about the blood throughout the morning, when they stopped at the convenience store on the way there, on the way to work: mind your business.

(END OF PLAY.)

MR. GOLDBERG: Now, she was asked. Why, why would you ride with him, knowing there's blood in the car? She told you that she didn't feel like she had a choice. She had to get to work, and that was her only way to work. As she testified to you, she relied on rides from other people to and from work. She's got a daughter. Got to pay the bills. She had to go to work, and that was corroborated by the texts she sent that she was going to be late for work.

When they stopped at that gas station on the way to work, she gave him money for gas; she told you that. Is it coincidence that at 7:45, 8 o'clock in the morning he needed gas after just driving all about Columbia for, like, forty-five minutes and then all the way to New Zion and all the way back to Columbia?

She also told you that he looked tired. Again, is that a coincidence? He had been up all night driving, stressing, trying to figure out how to cover this up.

Friday afternoon, he fails to show up and pick her up from work. So, she gets a ride and she gets back to the house, to Mountainbrook, and what does she tell you she did? She said she banged on the door like the police is what she said. And then when he came to the door, he looked shook, like he'd seen a ghost, and that

he appeared as though he'd been sleeping, and she was upset. She was upset because he was wearing the same clothes: the Nike shirt with the drawstring, the same clothes. And she talked about how nasty those clothes were and how he needed to clean himself up, and why was he in her bed?

That's corroborated. When law enforcement went to Mountainbrook and they collected the evidence, they collected the pillowcase that had a spot on it that looked, appeared to be a spot of blood.

She then tells you about how she had to drive his car to go get money because she felt like she had no choice. She had to pay the rent. She had to take care of her daughter; her concern was her daughter, even if that meant driving that car with whatever was in it. It's not like she didn't try to find out what happened in the car. She asked him about it repeatedly, and he wouldn't tell her.

Interestingly enough, when she's driving the car, she tells you that she had to pull the seat up, the recliner, because he likes to keep it laid back just like you saw on that video when he was eyeballing Samantha Josephson on the corner when that seat was leaned back. And she had to pull it up so that she could drive it.

She talks about how he puts on blue, plastic gloves and he starts cleaning the car. He's wiping down the car, and then, and then, and then he pulls this out and he starts wiping it down, cleaning it right there in front of her. You think she wasn't afraid of what might happen with him sitting there, holding this knife? Blood all over the car already and he's cleaning it.

She said she had seen it before, but she hadn't seen it open like that. And if you recall, she's not the only one who's seen it before, or at least something like it. Destiny Cuttino got up there and she said, she told you that she'd seem him with a knife like that one before.

What did he tell her when he asked -- when she asked? Mind your business. Again, again.

She finds this rose-gold iPhone in the car and asked him about that. Whose phone is this? Way is it so -- it's clearly a female phone. Whose phone is that, and he blows her off. Says he found it.

She sees him at the various points in the day putting wipes in grocery bags. He's in and out of the house. He's back and forth from the car to the trash at Mountainbrook, which later in the trash, as you know, wipes, gloves, bloody clothes, bloody bags, bloody toilet paper rolls, bloody paper towels, bloody towels

all found in the trash at Mountainbrook. And then after all that, he goes back to Five Points where he's pulled over, literally blue lighted a block from The Bird Dog.

It wasn't until Maria saw the news about the missing girl on the news the next day where not only they talked about Samantha, but they put a picture of a black Impala up, and that's when the light bulb went off for her. It made sense to her then, but she had scared. Her priority is her daughter. She had just been in a car with him, what, two feet away with him cleaning a knife, this knife. You think she felt comfortable about telling anyone or anything at that point? No. Her concern is her daughter.

No matter what she said to him, no matter how many times she asked him, he would never say what happened in that car or where the blood came from. So, I ask you this. When your girlfriend repeatedly, repeatedly asks you why is there blood in your car, and if you really, truly didn't know where it came from, and you truly were scared about how all this blood got in your car, what's the more reasonable response to that question? Is it to tell her I don't know, baby? I don't know how it got there, and I'm scared and I don't know what to do, or his response of mind your business? What's the more reasonable response to that situation?

You heard testimony about the traffic stop the next night about twenty-four hours later. Officer Kraft came in here, and he told you that there was a BOLO out for the Impala, be on the lookout for a black Impala, newer model. And again, about a block away he initiates blue lights and starts a traffic stop.

What happens on that traffic stop? What does the Impala do after the blue lights have been activated? Where does he go? He goes to turn and pull over. He goes to Saluda Avenue, and he turns down the wrong way of a one-way street again. Again.

Initially as Kraft approaches him, he's cooperative. He approaches the vehicle, asks him what he's been up to. He smells marijuana, asks him about the marijuana, and Mr. Rowland is what? He's cooperating. He says yeah, I was smoking earlier, freely answering those questions at that time. Then the conversation changed and when the conversation changed, Mr. Rowland changed. As soon as Kraft said the magic words, everything changed.

(WHEREUPON, A SECOND DVD MARKED AS A STATE'S EXHIBIT IS PLAYED DURING CLOSING ARGUMENT. AUDIO IS NOT TRANSCRIBED.)

MR. GOLDBERG: I pulled your car over because it matched a suspect. He didn't even get to finish his

sentence before Mr. Rowland was trying to figure out how do I get out of this now. He was cooperative until that moment when the word suspect right here, and then he had no choice in his mind, I guess, but to take off running.

(PLAY OF STATE'S EXHIBIT RESUMES.)

MR. GOLDBERG: They eventually catch him, as you know. He's checked out by EMS. No injuries and taken into custody. In an initial search of the vehicle, his vehicle, what did they find? Samantha Josephson's phone right next to him between the seat and the center console, blood all over the car, blood on his shoe. The trinket or necklace thing hanging down from the rear view mirror, the same one on the video at Cellular City.

The seat leaned back, again seat leaned back in Five Points right when Ms. Josephson is about to be picked up, right there. Traffic stop, this is through the rear window, seat leaned back with because that's how he drives his car.

Some of you might be thinking how could anyone be calm enough, how could anyone be calm enough to drive for hours with blood and/or a dead girl in the back of your car? How do you not freak out when your girlfriend keeps asking you about all this blood? How could anyone go back to Five Points a block away from where this happened and not be nervous that they'd get caught?

Well, the answer is you got to be somebody who is capable of handling pressure, right? State's Exhibit 193, this is Mr. Rowland's personnel file from the FedEx where he worked, where Destiny Cuttino told you he met -- she met him. In his file on his resume: Skills Profile: Ability to remain calm and focus under extreme pressure and circumstances. Extreme pressure. We are literally talking about somebody trying to get away with murder. It doesn't get more pressure than that and he, himself, has told you that he's prepared for that.

The other reason: he thought he had gotten rid of all the evidence at this point, right? I mean, at this point of the traffic stop twenty-four hours later, he's already tried to clean the car with wipes and bleach that's found in the car. He threw away the knife; it's in the trash at Mountainbrook. He threw away his bloody clothes. He threw away the bloody sheet that was in the back. All that stuff is in the trash at Mountainbrook. But what he failed to consider is that he was driving around in the actual crime scene.

And at that point, though, think about what he knew. He didn't know that law enforcement was looking for an Impala. At best, he only knew they were looking for some girl who was missing. And he certainly didn't

think that they were going to be looking for the girl who was in the passenger seat of his car who doesn't look anything like Samantha Josephson: missing white female versus black female in the passenger seat. He thought he was good to go.

But it's the clothes. It keeps coming back to the clothes. The clothes link him up to virtually every part of this case: the Impala, the ATM, Mountainbrook, Cellular City, the trash, these drawstrings, these Nike drawstrings. These drawstrings, keeps coming back. They keep showing up. The dark pants, you see those in the ATM and at Cellular City. Drawstrings, drawstrings. Clearly Nate Rowland identified by Mr. Williams as the person trying to sell the phone.

Here's an ATM photo. What do you see sticking out below that jacket? That's a long, light-colored shirt, and what's found at the trash at Mountainbrook? I'm sorry, here are the pants. There's the long, light-colored shirt, and look what was found in the trash: a long, light-colored shirt. And what does it have on it? A whole bunch of blood. It keeps coming back to the clothes.

The gloves, this person is wearing gloves. Nathaniel Rowland is wearing gloves and what do we find? Two gloves at Mountainbrook, one in the house and this

one in the trash with a discoloration consistent with having been touched by bleach, and bleach was found in his car.

The jacket, the jacket at the ATM, the same jacket found in his car, and what did we learn about that jacket? There were striations, marks consistent with possible claw marks or scratch marks found on that jacket.

The slides, oh the slides. These slides. Look at that ATM picture: red and black slides. Red and black slides taken out of the truck and collected as evidence.

What else? The bandana, right? The bandanna. Look at that ATM photo. Dollar bills all over the ATM footage. The second time when he realized he didn't have to hold his hand up here because he had a bandana that he always has, and he could use that to cover his face, so he did. The same bandana that he's wearing at the traffic stop with Officer Kraft, the same bandana they take off of him that night. And, of course, the toboggan or beanie, black with red righting there at Cellular City and found in the back of his car.

So, the question is why not throw it all away? Why did he only throw some of it away? The Nike hoodie, the dark pants, you got to get rid of those. He's seen wearing those on Thursday; he's seen wearing them

Friday. He's been wearing them, like, three days. Got to ditch those, no question. The tan short, we just saw it. Soaked in blood. Can't keep that around. The gloves, one of them's got some sort of weird discoloration on it; the other one has blood on it.

But what about the jacket? Why didn't he get rid of the jacket? That's a dark jacket, folks. It's hard to see blood on that, but not only that. There is no way that he knew the significance of that jacket. There is no way that he knew that Lieutenant Schenk would be able to come in here and tell you that those marks on that jacket were consistent with somebody clawing or scratching. No way he knew about those striations.

What about the slides or the beanie or the bandanna? Why not get rid of those? Simple. There's no visible blood on those things. No visible blood, but there was DNA on it. Samantha Josephson's DNA is on this beanie. And there was blood, Samantha Josephson's blood. Her blood was on this, but he couldn't see it, so he didn't think he had to get rid of it.

You heard about Mountainbrook and all the evidence found in the trash there, the -- where he tried to erase the evidence. That's the bleach, the wipes, the cleaners, the bloody clothes, the knife. Even the trash from his meal that he got at Wendy's was there mixed in

with everything else, and he dumped it all in the trash at Mountainbrook. Why did he do that?

Well, he's not going to put it in the trash at his sister's house. He's not going to put it in the trash at his family's house in New Zion. And he's especially not going to do that when he doesn't think that there is any connection whatsoever between him and Mountainbrook.

But what he wasn't counting on was that eviction letter. Remember the eviction letter that you saw earlier that Maria Howard wrote and left in his car? It had the Mountainbrook address on it. That is the only connection. That is the only way that anybody even knew to, knew to go look at the trash at Mountainbrook. If that hadn't have been found, that trash would have never been found. The knife, the clothes, the wipes, the bleach, all that stuff would have been gone. It would have been gone.

(PLAY OF STATE'S EXHIBIT RESUMES.)

MR. GOLDBERG: Cellular City. Again, this is video out front. Again, the trinket thing hanging down. What do you see in the back, as I mentioned earlier? White sheet. You remember Oshamar told you that Mr. Rowland had to go back out and get, I think, the SIM tray, is what he called it, to go with Ms. Josephson's phone.

So, what do you see here? Mr. Rowland looking for

it. He's rooting around looking for it. He's got to look under the sheet, and you'll also see here again those drawstrings. They appear again. Right there he's digging around, trying to look under that sheet in the back, looking over the side.

You heard a lot of testimony over the last week about forensic analysis that was done in this case. Investigator Hudak talked to you about his efforts to try and get the information from the infotainment system in the Impala. Couldn't do it. Got an error message. Sent it off to the manufacturer of the software to try to get that location information from the car's infotainment system. Didn't work. Error message.

The other interesting thing he told you is that the car appeared as though there had been some sort of -- had some sort of work done on it, and that's corroborated. Destiny Cuttino told you that she actually hit a deer driving this car some months prior.

You heard about the phones again at great length, and I'm not going to go back through all the tower detail at this point, but I do need to point out to you on the Alcatel phone that Mr. Rowland had. This is the phone that Maria texted on when she said where you at. And what were you told about that? That phone cannot be accessed for usage without somebody knowing the

passcode. It has to be unlocked. It's set to -- it was set to lock every thirty minutes. And the testimony was that there was keypad activity on the Alcatel at 2:58, and it's to lock after thirty minutes. But what happens over an hour and a half later at 4:36 a.m.? There's action on that phone on the internet: trending porn video of the day. The only way that can happen is for somebody to have unlocked the phone. That somebody was Nathaniel Rowland.

You heard lengthy testimony from the DNA analyst, Agent DeWane. She told you a lot; she told you a lot. She told you about blood and how it can overpower touch DNA. And she told you that Samantha Josephson's blood was on everything. It was all over that car: the back seats, the headrest, both sides, the back of the seats, the center console, the roof, the, the front, the seatbelt buckle receiver. The blood was everywhere. She told you that her blood was on the Nike hoodie with the drawstrings. It was on his pants. It was on his money bandanna. Her blood was on his sock, his shoe. It was on the black jacket. It's on the tan shirt. It's on the glove found in the laundry basket; the blue, plastic gloves; the trash; the Yankee Candle bag. It was on Maria's daughter's shoe. It was also -- Samantha's blood was on that envelope with that list,

that weird list.

And let's not forget that her blood was on the blade on this weapon, the one that he was seen cleaning in the car. Her blood -- well, that's not the only DNA found on that thing actually. Nathaniel Rowland's DNA was included as part of the mixture on the handle of this weapon, the murder weapon. It was included by way of two different methodologies you heard about, included in the mixture. His DNA on the handle.

Samantha's DNA is also found on the Cold-Blooded beanie. It's on one of the red and black slides, and it's under Nathaniel Rowland's fingernails.

In addition to the handle of the murder weapon, Mr. Rowland's DNA is on the Nike shirt; the pants; the blue, plastic gloves; the beanie; the slides; the money bandanna; and all over the inside of that car.

So, let's think about a few of the things that Agent DeWane told you in addition to those results. She told you about how wearing long sleeves and gloves can decrease the likelihood of somebody leaving their DNA profile on another person. She told you that just because somebody is excluded from a profile, that doesn't mean they haven't ever touched, worn, or used that item. A black jacket, for example, or my jacket. I think I even asked her if I gave her my jacket, would

my DNA be all over this jacket, and she said no, not necessarily.

And then I asked her about these unrelated, unidentified individuals, and she told you that those profiles could have been left at any time by any person at any point that person has ever come in contact with almost any item is essentially what she said. Any person that's come in contact with any item could leave their DNA behind, whether it's the assembly line worker, whether it's the sales clerk. It could be the guy who actually made the car. It could be the guy who fixed the car, and we know that the Impala had work on it because Destiny told you that. Anybody, any one of those people could leave their DNA in there at any point in time and that you can't put a time on it, and that all those profiles aren't necessarily the same person. They could be hundreds of people. Can't say.

You heard from the handwriting expert, and he told you that he took Mr. Rowland's FedEx personnel file and his Capital Waste personnel file, and he looked at records. And you can look at them for yourself when you're in the jury room. There's handwritten stuff all over them. And he looked at that and he said yep. The same person filled out both of those applications.

And then he compared that to the list, this list.

And he told you that there was a high degree of likelihood that the person that wrote those applications wrote this list: duct tape, gloves, all black, flip phone, gasoline, matches. What else is important about that list? Nathaniel Rowland's fingerprint is on that list; Samantha Josephson's blood is on that list.

He references duct tape. There's duct tape somewhere over here that's got his prints on it, Nathaniel Rowland's prints on duct tape just like on that list, but you look at them for yourself. You decide if you think he wrote it, even though Mr. Jamieson told you that it's highly likely.

So, you heard about his prints on the list. You heard about his prints on the duct tape from the fingerprint analyst, but what else did she tell you? What's the last thing she told you? Footprint. Samantha Josephson's footprints were on the window in Nathaniel Rowland's Impala, the inside. This was her cry for help. This was her way to try to get somebody to help her and save her from him. But also what it did, she left a trail. She left her own trail of evidence, her own trail leading right to the defendant.

You heard from the trace guy who talked about bleach and how there's all these items in the car consistent with bleach and that the car -- that bleach

smells like chlorine, which, interestingly, is what Maria told you, that the car smelled like chlorine.

And finally, the final expert you heard from was Dr. Beaver yesterday, and you all remember that testimony. He told you about the wounds that she sustained: over a hundred wounds all over her body. He went through some of the pictures with you. He described in graphic detail what happened to her. He talked about the blood loss, that there's over a gallon of blood in the human body, and there was just about this much left by the time she was found.

He told you about this knife, and he told you that they were trying to figure what kind of weapon could have caused these injuries. You have the pictures there; you look at them yourself. These weird parallel wounds, parallel wounds just like these two blades. And he told you that this, this is the unique weapon that did it. It's not just unique because it's got the two blades that are parallel because he was confused. He said that there are single stab wounds, too. Well, this one really is a multi-tool: single stab wounds, parallel stab wounds. Nathaniel Rowland's knife is the one that killed Samantha Josephson.

I'm about to wrap up. The defense is going to have an opportunity to talk to you in just a minute. Just a

couple of things I want to cover before I finish. Let's talk about common sense.

You take your common sense in that jury room with you, and you use it when you look at this evidence and apply as the law tells you. Despite all of the evidence that has been presented to you that points squarely at Mr. Rowland, is there another theory that's supported by credible evidence about who could have done this? Use your common sense. Think.

You would have to believe that not only that some other person killed Samantha Josephson, but that person was wearing Nathaniel Rowland's hoodie with the drawstrings, his pants, his money bandanna, and his slides. You would also have to believe that this other person drove Nathaniel Rowland's car, used Nathaniel Rowland's knife, and had possession of Nathaniel Rowland's phone.

Even if you believed all that, you would still have to believe that this other person drove on March 29th in the early-morning hours to New Zion, of all places, in the middle of nowhere. And when they were there, that this person figured out a way to get into Nathaniel Rowland's passcode-protected phone to look at a porn site. Of all the places in the world to dump the body, this person would have just picked a random, secluded

spot about a mile away from the Rowland house? If that's not enough, then you would have to believe that the person somehow found a way to get Nathaniel Rowland's Chevy Impala back to him without anybody knowing.

And the twelfth thing -- because I'm told that the number twelve is important in this case -- a twelfth thing that you would have to believe, whoever was driving the Impala on the 29th just so happened to drive down the wrong way of Saluda Avenue, the same road that Nathaniel Rowland turned the wrong way down on twenty-four hours later. Two people driving the Impala just happened to turn down the wrong way out of the same road twenty-four hours apart? Is it reasonable to believe any of that? No. It makes no sense, zero.

The defense has tried to draw your attention to everything except the evidence that points to Mr. Rowland. He didn't have any scratches or marks on him. Well, he did. They were on the jacket, the striations. None of his DNA was found on her body. He was wearing long sleeves; he was wearing gloves. That decreases the likelihood of shedding or sweating or the passing of DNA cells.

Her earring wasn't found. Her ATM card wasn't found. Her purse wasn't found in the car. Those things

were of no value to him. He tried to use the card. It didn't work. He tried to use it in Sumter and Columbia, and it didn't work. He doesn't need that anymore.

But the phone, her phone, that was valuable to him. He tried to sell it because he needed money because he didn't have a job. He tried to sell it and when he couldn't sell it, it was still of value to him because what did Maria tell you? Maria told you that when she asked him about the phone, he told her that he was going to try to give it to her and try and get it reworked so that she could use it.

They might say to you that there's no defects in any of the seats in the Impala, so how could all these stab wounds occur in such a confined space? Dr. Beaver told you that the crime occurred where all the blood is, and all the blood is in Nathaniel Rowland's car. Is it reasonable to think that this, this crime occurred anywhere other than in his car? You heard testimony about a significant bloodletting was the term used by the crime scene agent, a significant bloodletting that occurred in that car.

I appreciate your attention. I am just about to conclude.

What have the themes been that we discussed? I told you at the beginning of this closing argument that

it was your job, your job to take all the little pieces, all the facts, all of the evidence as it's presented to you, put it together, and use your common sense. Use your common sense to see a clear picture of what happened March 29, 2019. The clothing, talked about that *ad nauseam*. Where the body was a mile from his house. All of the video showing the Impala driving around. Her getting in the car. Mountainbrook, all the trash that's down there. All the blood, the knife, all the things tying him to that location. The forensic analysis of the phones, the fingerprints, the handwriting, the autopsy. When the smoke is cleared, the picture comes clearly into focus, a clear picture of what happened, and there is only one reasonable conclusion that you can make when you clear up that picture, and that conclusion is Nathaniel Rowland is guilty.

I told you before. Samantha's whole life was right there, was right there in front of her, and she could have been anything that she wanted to be, and it was right there for the taking to do whatever she wanted. The defendant did the taking. He took her from Five Points. He took her life, and he took the time to try to erase all the evidence to try to erase her. Samantha Josephson deserved the chance to live her life, and this

man, the defendant, Nathaniel Rowland, he took that chance from her. It was malicious, it was intentional, and it was cold-blooded.

Ladies and gentlemen, the State of South Carolina humbly asks that upon consideration of all the evidence, you return a verdict and you find Nathaniel Rowland guilty of murder, guilty of kidnapping, guilty of possession of a weapon. Thank you.

THE COURT: Ladies and gentlemen, I'm going to send you to the jury room for a break of about ten minutes. Please do not discuss the case in the jury room during the break. Follow the directions of the bailiff.

(THE JURY EXITS AT 11:08 A.M.)

THE COURT: We'll take ten minutes.

(OFF THE RECORD.)

THE COURT: You may bring the jury.

(THE JURY ENTERS AT 11:24 A.M.)

THE COURT: Ms. Pinnock.

MS. PINNOCK: Please the court, Your Honor?

THE COURT: Yes.

MS. PINNOCK: Good morning. Nathaniel Rowland did not have a mark on him. Not a cut, not a bruise. They checked him and nothing. The unidentified people that the state wants to just brush off like they're not good -- no big deal, they do matter. DNA evidence does

matter. If it didn't, we wouldn't have spent an entire afternoon of this trial talking about it. So, you cannot brush it off. You cannot stamp your feet and hit podiums and say it doesn't matter because the unidentified male A, the unidentified male B in every multi-person mixture that has three to five extra people in it, they do matter. And we can't forget that in a lot of those mixtures, Nathaniel Rowland is excused -- is excluded. He's not there. So, it's somebody else.

Now, the problems with this case, the way I see it, is that back in March of 2019, everybody, everybody started jumping to conclusions and just making up their minds on something when we know on March 30 of 2019 law enforcement literally knew nothing. What they knew was that Samantha Josephson had gone missing. What they knew was that her body had been located in Clarendon County, and what they knew at that point is that Nathaniel Rowland had been pulled over by Officer Kraft, and there was liquid in the car that they at that point suspected was blood. The initial report came back from the lab confirming that it was, in fact, blood.

Nobody has stood up here and said that Samantha Josephson's blood was not in that car. Nobody has stood up here and said that Nathaniel Rowland was not the one driving the car, but her blood being in the car and

Nathaniel Rowland driving the car does not mean that he is the one that killed him -- I'm sorry, killed her, and that is what this trial is about.

He's not charged with driving a car. He's not charged with selling, trying to sell a cell phone. He's not charged with not calling the police when he should have. He's charged with murder, he is charged with kidnapping, and he is charged with possessing the weapon during those two crimes. That's why we're here, not for what he might have done starting in the late morning hours of Friday but what happened between approximately 2:07 on Thursday -- on Friday morning to when Ms. Josephson was located in the woods. That's what this trial is about.

At the beginning, a little over a week ago -- it was eight days ago -- Mr. Gipson stood before you and he told you that the simple answer is the easy answer or the simple answer is the right answer or something along those lines. There is nothing simple or easy about what's happened in this courtroom this week, nothing. In fact, the opposite is true. We've all -- we all know this. The simple answer, typically not the right answer. It's the giveaway; it's the one you can fall back on. Go ahead, snap it. It's done. And starting two years ago and continuing to today, that's the

narrative that has been adopted by law enforcement. It's the narrative that was adopted by the solicitor's office, and it's the narrative that they've given you throughout this trial.

Now, I'm not going to go back through every, every piece of evidence, every witness that you've heard of -- I mean, that you heard from. You know, y'all were listening; y'all were paying attention. We were watching. You know, y'all are watching us. We watch you. We know you were paying attention, so I don't need to go back through everything, but there are, you now, a few key pieces that I think show and prove that the easiest answer is not the right answer for this case.

Now, I want to start where, where I believe the narrative is kind of getting skewed a little bit, and luckily this video is in evidence. We're going to start with Officer Kraft, the initial officer that, you know, his blue light pulled Nathaniel over and conducted the traffic stop. What you were told was happening in that video is that Nathaniel Rowland was driving through Five Points one block away from The Bird Dog when a, when a traffic stop was initiated. What happened was Nathaniel Rowland was traveling out of the Shandon neighborhood, had come up to the stoplight, got into the turning lane to turn left, and turned left. He did not go into Five

Points towards The Bird Dog. He turned to left. Officer Kraft then hits his blue lights, and you see Nathaniel Rowland driving his car, put on his blinker, get into the, the turning lane. It's all on video; you can see it. It's a turning lane to turn left to stop for the traffic stop.

And then I believe the testimony was when the, when the car stopped, you know, he started talking. Everything was fine. Then we get him out of the car, and just like that he's gone. That's not what happened, and you don't have to take my word for it because you'll have the video. It's not just believe what I'm telling you because I'm telling you. It's watch it for yourself and see when the narrative leaves what the evidence shows because what the evidence shows is that Officer Kraft asked him out of the vehicle. He got out of the vehicle. He was standing there. He gets out. He literally gets out of the car and puts his hand in his pocket, is standing there. Kraft grabs his arm, yells at him: what, are you crazy? The other officer who was on scene jumps at him. You, you can see on the body camera Nathaniel looks around because the other officer lunged in his direction and at that point, Nathaniel ran.

Am I saying that he should have run? No, I'm not

justifying why he ran, but that's what happened. He made the choice to run. When one officer grabbed him, yelled at him, and another jumped at him, he took off. He shouldn't have but he did. So, he did not tuck tail and run as was just presented to you when they start telling him why they, why they stopped his car. That's not what happened. Don't let the narrative cloud what you can see with your own eyes.

You've also heard nothing, nothing from anybody about the amount of blood in his car not being a significant amount of blood. I haven't said it. Ms. Goode hasn't said it. Mr. Pillinger hasn't said it. There was a large amount of blood in this car. That was not an issue in this case; nobody was pretending like it didn't exist. It's there, but what we know from the testimony that you heard is that blood transfers, and it transfers easily. You don't need a DNA expert to tell you that. Anyone who has ever helped a child with a cut, you know, helped a friend with something, you know, if somebody is bleeding, you're going to get that blood on you.

And with the amount of blood in that car, it is not a stretch of the imagination to think that everything else in that car had blood on it, literally everything. Steering wheel, gear shift, you know, air vents,

seatbelts, clothing, it got on people, it got on a baby's shoes. Everything in that car had blood on it, and that's a fact.

You don't have to touch something in order to get blood on you. You have to come in contact in some way with the blood, and the items that were in the car prior to the blood being in the car had blood on them. That's not a leap and a bound. That makes perfect sense.

So, prior to them -- and y'all remember. Prior to them coming out and processing the car, the SLED agents, the crime scene investigators were out in the woods. They got the call out there first because Ms. Josephson's body had been located. You heard the testimony. You know, we, we wanted to be as specific as possible when we were talking to these investigators about why they did certain things, what they did, you know, the reasons behind them. Tell us how you did your job because these crime scene folks, they did their job. They collected hundreds of things. They don't know what they're looking for when they go out. They are given a basic, you know, here's what we think is happening. They establish the crime scene, and then they start documenting. They document with notes, they documents with pictures because they need to try to make sure that they gather all possible information that could be

beneficial in this case, and that's what they did.

You know, nobody -- they collected beer cans, cigarettes. We know they did. They took pictures of dirt. We have pictures of dirt roads. We have pictures of trees. We have pictures of footpaths because that's what a crime scene investigator does: they document and they collect.

We also have pictures of Ms. Josephson's body when it was in the woods because crime scene wants to make sure that they can, at a later date, explain clearly how a body was found, what they observed from the body, and preserve any possible evidence that might be present at that time because they know that certain types of evidence is very fragile. So, if you need -- if you can get it, you need to get it before the possibility of contamination. That's what they did.

A week ago Ms. Goode, Ms. Goode stood in front of you and she told you Samantha Josephson had DNA under her fingernails. Y'all heard the testimony: it's under her fingernails. And the crime scene report has that her fingernails were ripped, ripped, but when Investigator Jazic was testifying and, you know, the state's going through and putting in picture after picture after picture, they didn't give y'all any pictures of her hands because to them, that's not

important. There is not one photograph of Ms. Josephson's hands, of her fingernails prior to that autopsy that would show you the true length of those nails when they found her body in the woods, not one. They did not give it to you to look at because they don't want you to think about it.

Pictures were presented to y'all, and they're here. You can take, you can take all these back and you can look at them. The scene itself in the woods, I think, is also important for a number of other reasons. Dirt roads, brush, a wooded area. You couldn't see Ms. Josephson's body from the, from the, from the road. You had to come into the footpaths to see where she was, and just imagine. It's pitch black. Somebody drives a car into the middle of nowhere, drags the body out -- not a street light; it is pitch black -- through a wooded area with not -- you know, it's not the blanket you-can't-see-anything woods. It's those really annoying pointy sticks that scratch you when you go through them, those kind of trees. Not a scratch. Nobody fell. There's not debris on any of the clothing that they found in the car that they're, they're saying that Nathaniel Rowland was wearing. Nothing from the woods is on Nathaniel Rowland's clothes.

Nothing's on his shoes, and not just dirt and

debris. There is -- if somebody's going to be committing a murder, folks, you're not doing it in slides. You're not doing it in flipflops. There are at least three pair of shoes in that car with no blood on it. A significant bloodletting event, and there is not a shoe that is covered with blood.

The slides that they got, it's a -- there is a mixture of DNA, another mixture of DNA, and I'll come back to all of the, the DNA stuff in just a minute, but no -- people aren't going to commit murders wearing flipflops. It doesn't make any sense; it makes absolutely no sense. That person would have been covered, covered.

The next scene that was processed was Maria Howard's house, and they kind of went back and forward. I probably have the timing off a little bit, but between Maria Howard's house and the car, there was a lot of processing. A lot of items were collected from her home as well, and Maria is one of those, one of those witnesses, she's kind of tough because you have to acknowledge that she's kind of in a situation.

You know, she goes and meets with law enforcement three days after Nathaniel is in jail. You know, she tells them she's been working double shifts and, you know, she's been tired and all these things, but when

she testified, you know, it's, it's little things. You have to remember what you tell people if you're going to keep that story going. You know, we've all heard that. If you're going to tell a, tell a lie, you'd better remember what it is.

So, if you're working double shifts, you know, that's the reason your daughter is not with you, which is fine. Everybody needs help, but you're with Nathaniel every day. You know, he doesn't spend the night at my house, but I know what he looks like when he wakes up. Okay. You know, when he, when he showed up, he didn't have my shirt, and then he disappeared and came back with my work shirt and it was wet because he had washed it, and so I put a wet shirt on and went to work. Okay.

None of that makes sense. I don't, I don't know what she's talking about. I wish I could offer you an explanation as to what she's talking about, but none of that stuff makes sense.

Why she would get into a car covered with blood and just go on about her day like everything is fine, that doesn't make sense. Why she didn't call the police if she was so scared -- you heard her. I was too scared. I couldn't call the police. I was too scared. Well, when she got, when she got to work that day and she

texted her mother, she said:

Baby tried, LOL. My shirt is wet as F. He will not be waste -- wasting ---

I believe she said washing.

--- clothes ever. Have a good day. Love you.

That's not somebody's who's terrified and scared and trying to figure what was going on. That's somebody laughing with their mother that her work shirt is damp, and she's not going to let Nathaniel Rowland wash her clothes anymore, not somebody who's scared of him.

A number of things were taken from this house, from Maria Howard's house, and that's why I say I feel like she finds herself in a, in a position. It's her house. She shares that house with her child, and all of these bloody items are found at her house. And she can tell us all she wants to that, you know, I didn't touch anything. I didn't know what was going on. I didn't, you know, I didn't do anything. Her DNA or her fingerprints were all over those bags, all over those bags. She can say, she can say whatever she wants. I don't know what's going on in her head, but her fingerprints and her DNA, all over those bags.

And part of -- one of, one of the more interesting things that Maria provided to law enforcement and told y'all the other day is when she realized that her kid

was still at daycare. Now, the way she describes it, she realizes she needs to get there. Her mother is asleep because she's a schoolteacher and she was in bed. Totally fine. So, what does she do? She tells Nate I need to borrow -- you know, we need to go get my daughter. My mom didn't go pick her up. Okay.

So, Maria's driving and she told y'all that while she's driving, Nate put on gloves and continued to clean the inside of the car as they were driving down the highway, that he sat there in the front seat cleaning off this multi-tool that she had seen him with, you know, whenever. Before. Wearing gloves cleaning it off.

This is what the tool looks like now. It's been through processing. It's been cleaned, right? The state showed you what this tool looked like when they found it in the trash can. It's not clean. It's got blood, hair, and DNA all over it. He was not sitting in the front seat of a car, riding down the highway to Northeast Columbia cleaning a murder weapon in the front seat of the car. That did not happen. She came in here and she told y'all something that did not happen. That's the tool that they found in the trash; that's what it looked like. It was not clean like that.

Wearing gloves and DNA. I'm almost confused after

all these years why it is that we even bother with DNA testing, and I only started thinking that after sitting in court today. Why do we take swabs and submit them to analysts if we're going to stand here and convince y'all that it doesn't matter what they say? Then why do we do it? I don't have an answer for that. If we're not supposed to pay attention to what the scientists tell us, then why are we sending stuff to science? It doesn't make any sense to me because that's a, that's a theme that has continued to come up throughout this case, and it all boils -- you know, with the blood, it all boils down to what was found on this and where it was found.

We know that Nathaniel's DNA, there is a weak support, weak support for the inclusion of his DNA in a mixture found in this general area of the tool, right? But what did not come out when the prosecutors were questioning Agent DeWane is that there was a mixture. I asked her that on cross because it was skipped ever. There was a mixture of DNA on that tool. There was a mixture of male DNA on that tool. And the major contributor, y'all remember Agent DeWane told you major means the most DNA present. The major male profile on that tool is not Nathaniel Rowland. It is a weak -- and that's not the word that I'm using; that is their

standards for interpretation -- a weak support for him to be included on that tool.

And that also kind of brings it back around. If the state is going to stand here and tell you over and over and over again that Ms. Josephson didn't have Nathaniel Rowland's DNA under her fingernails because she was wearing long sleeve -- he was wearing long sleeves and gloves, then how did his DNA get on that? You cannot straight faced stand here and say she doesn't have his DNA on her because he was covered up, but his DNA is on that because he wasn't covered up. You cannot talk out of both sides of your mouth; you cannot argue he was wearing gloves at one point, not wearing gloves at another to explain why his DNA is present somewhere and excluded from somewhere else.

There was lots of testimony. Like I said, I'm not going to go through all of this because honestly I don't understand a lot of it. The cell phone stuff with the towers and the data, you know, all of that's technical. I can talk to experts. I can, I can listen to the experts, but that is very technical stuff.

What we know about the cell phones is that there were two phones that were associated with Nathaniel Rowland. We know that one phone Agent Grabsby -- Grabsky was -- you know, he provided y'all a map, and

that map hit off of towers in Columbia, Sumter, Clarendon County, but we know there's a second phone. And in the records that y'all have, all these phone records right here, the state provided you the proof that Nathaniel Rowland does not have both phones associated with him all the time, and that's important because the phone expert testified that the phone doesn't -- wherever the phone is, it doesn't mean the person is.

So, we know that one phone associated with Nathaniel Rowland was bouncing off of cell towers, and we also know that Nathaniel Rowland does not have both of his phones on him at all times because you don't call yourself and talk to yourself for almost two minutes. You don't text message yourself and respond from your two separate phones. The records that they gave y'all have the calls and have the text messages between the two phones that they are saying are associated with him. People don't have conversations with themselves, not over cell phones. So, we know that somebody else had Nathaniel's phone. Just because a phone hits off of a tower, that does not mean that the person is there with it.

Now, Mr. Goldberg talked about the ATM video, you know, and Mr. Martin's video. You know, the gentleman

who works in the solicitor's office. I'll start with the ATM video because it always comes back to the clothes. I believe that's what he said, always comes back to the clothes. Well, the clothes were located, I don't know in, in which bag, but the clothes were located.

There is a black jacket. There's been lots and lots and lots of talk about a black jacket. The black jacket is important because if you're dealing -- when dealing with a case where somebody is stabbed multiple times, you have to understand that that means the assailant is right up on that person. You know, if you're -- if somebody gets shot, you can get shot from across the room. You cannot stab somebody from a distance. It's up close and it is personal. So in that scenario, the person wearing the black jacket they believe is the assailant.

They tested that jacket. They tested it for DNA. They found DNA. They tested multiple places on the jacket. They, they tested the cuff. You know, you put a jacket on, it's going to be around your cuff. Nathaniel Rowland's DNA is not on that, on that cuff. They tested where they said there were striations, where the scratch marks were that was potentially nail, nails -- nail damage from the fight that Ms. Josephson put up.

They tested it. Nathaniel Rowland's DNA is not there. And the excuse that's provided is, well, just because it's not there doesn't mean he never wore it.

Then I ask you again, folks. What is the point of having these folks come in here to tell you what they did, what their results are so we can just turn around and brush it off like it doesn't matter?

They also tested the neck line of that jacket. Five different people. We can pretend like, you know, five profiles doesn't mean five different people. That is what profiles mean. One person has one profile; five profiles mean five people. Five different people are on the neck of that jacket.

Now, I was trying not to get into a whole bunch of DNA, but I don't think I can avoid it, unfortunately, so just bear with me. The beanie, a whole bunch of talk has been, you know, about this beanie with Cold Blooded on it. Y'all, I can -- you know, somebody can go out and buy a beanie with a Superman logo on it. It doesn't mean they're Superman. You know, what the beanie says means nothing.

So, what's important about that is the DNA. You know, Samantha Josephson's DNA is on that beanie. Nathaniel Rowland's DNA is on that beanie. Why? Because he's worn it. It was on his head. There is

video of him wearing it. Ms. Josephson's DNA is on it because it was in the car. The two other people who were present on that beanie, I don't know who they are. I don't know how they got there, but there's two other people on there.

And we can't keep skipping over things that don't work for us, skipping over things that don't fit into this nice, pretty box that I'm trying to give you. You have to look at everything. That is -- that's the oath that y'all took as jurors to look at everything. Consider all the evidence, all the testimony before you make your decision on whether or not the state's proven their case. And when the state elects not to give you everything, I don't how you're supposed to do your job. I really don't.

There's a tan shirt that Mr. Goldberg brought up from the ATM video. Guess what? Nathaniel Rowland's DNA is not on the tan shirt. There's two people: Samantha Josephson and somebody else. In the 67-page report that Agent DeWane issued in this case -- that was the, the big one, not the one that she did in June of 2021 two, almost two and half years later. The 67-page report from December of 2019, there are thirty-two different times and that Nathaniel Rowland is excluded from profiles or it's a combination, either excluded or

involves other people, thirty-two different times. The items where he was supposed to be -- in his car, on his belongings, the steering wheel, the gearshift, you know, his hat, his sweatshirt that we know he loves to wear -- we know that he's going to be there.

The issue is everybody else, and I don't -- arguing that -- I take that back. Trying to say that, you know, a unidentified profile could be the manufacturer of a vehicle that's a number of years old, you don't have to be a DNA expert to realize that that's kind of a stretch. If you own a car for a number of years, the chances of the manufacturer's DNA being there or somebody who did work on your car prior, it's not likely. It's possible. I'm not saying it's not possible, but it's not likely.

The unknown profiles in that vehicle, they matter. The unknown men, the unknown men that are involved in this case, they matter. You can't just brush over them because it doesn't fit the story that the state wants you to believe.

You heard from Dr. Beaver yesterday. What happened to Ms. Josephson, to say it was a horrific experience, a vicious attack, is an understatement. Over one hundred wounds is a lot of wounds, but I can't, can't get around how even Dr. Beaver, as convinced that he was, I guess,

the first time seeing this in court, he just knew automatically it was the weapon. He, he explained the single, you know, not the, the double wounds, the single wounds as somebody using this tool in this manner to create the, the single blade. Y'all remember that?

Now, how in the back seat of a car in the dark with a young woman who was fighting for her life someone is supposed to hold this, this tool with a blade literally pointed in their direction and not injure themselves in some way, how somebody does that is beyond me. It's, it's this long when its together. But y'all look. Let's try it again. Look at it. Wildly swinging, wildly stabbing in whatever rage is going on, and there's not a cut on him. How do you accomplish that with this?

But like I said, you know, he readily just identified it. He was really excited. He wanted to let y'all know he had identified the murder weapon after seeing it for ten seconds while sitting on the stand.

The cause of death in this case was never in question, never. Nobody ever said that Ms. Josephson was not stabbed and died because of those injuries. I don't know what Dr. Beaver's intentions were. I don't know why he tried to explain to y'all that Ms. Josephson's fingernails were too short to get DNA under

them after we already had testimony that they collected DNA out from under them. I don't know what that show was about, but this young lady had over one hundred stab wounds. There is evidence on her body. There's bruises. She has discoloration of her knuckles. Either she hit something or something hit her.

Her fingernails were ripped, even though some witnesses don't want to admit that they were after the fact. We know from SLED that they were ripped. We know from SLED that they were of medium length. Not the, not the short nails that Ms. Goode showed y'all yesterday. She barely has nails. His report said medium length and they were ripped. That's what we know. She put up a fight, and Nathaniel Rowland had not a mark on him. That is what we know.

There is a footprint in the window. Her fingernails are ripped. She's got bruises. She's got defensive wounds. She didn't lay there; she didn't give up. We never suggested that she did. They've never suggested that she did. This young woman fought, and Mr. Goldberg said that she left a trail with her footprint. Well, she gave y'all the conclusion with her nails. She told y'all who it was.

I've touched a few of the, you know, a few of the things that I guess just were overlooked at being

introduced to you. You know, the photographs of Nathaniel that were taken by Agent Jazic that showed absolutely no injuries, they didn't even ask him about it -- ask her about it. They didn't even ask her. They said did you respond to headquarters? Yes, I responded to headquarters. And what did you do? Well, I took some photographs. And did you collect the clothes? Yes, I collected the clothes. They didn't even ask her. Just wanted to brush on by like it didn't matter.

She told you in great detail. Ms. Goode asked her in great detail. You took pictures of the back of the hands? Yes. Front of the hands? Yes. Both sides of the arms? Yes. His face, his neck, and there wasn't a mark on his body. If there had been, y'all would be looking at those pictures.

If Ms. Josephson had Nathaniel Rowland's DNA under his -- fingernails, do y'all think they would have left that out? How many times do you think they would have had the DNA analyst on the stand confirming that his DNA was under her fingernails? How many times? But because it's not there, they don't want to talk about it. They want to tell you it doesn't matter because it doesn't work for them.

Some of the videos that y'all are going to be able to watch, I do ask you to watch them. Please watch

them. I don't -- y'all aren't going to be able to take the, the big TV back there, but you'll have some device in your jury room to watch these videos.

The PDF that was -- you know, the PowerPoint presentation that Mr. Martin showed y'all yesterday, you know, that was our first time seeing it, too. We, we don't have a Justin Martin in our office. So, you know, we were just sitting there watching twenty-five-plus hours worth of video, doing the same thing: staring at these videos, trying to identify cars, where they were going. You know, how can we try to get some sort of timing on what was going on, to see the driver of the vehicle.

That one video y'all have, the wrong turn down Saluda, Mr. Goldberg showed it to you today, a short clip. You'll be able to watch it, and if you remember when Mr. Shealy was on the stand, I asked him -- he's the owner of Statewide Security where they got all these videos from. I asked him to confirm whether or not he had a second camera on Saluda, and he does.

So, we're all familiar with Five Points. I assume we're all familiar with Five Points. If you are at Gourmet Shop or at the fountain or at Starbucks, that intersection heading into Shandon at Saluda Avenue, you can see the vehicle turn left going the wrong way and

travel down in front of Gourmet Shop. Right before you get to Gourmet Shop, right where that car turned, there is a camera that is literally pointed into the driver side of a car. It is directly in the street. It's got three or four different angles on it but one ---

MR. GOLDBERG: Objection, Your Honor.

THE COURT: Yes, sir, the basis for the objection?

MR. GOLDBERG: It's argument about facts not in evidence.

THE COURT: Ms. Pinnock.

MS. PINNOCK: I can move on, Your Honor.

THE COURT: All right.

MS. PINNOCK: He told you there is another camera there, and the only reason you don't have that footage is because law enforcement never asked for it. They never asked for it. They bring you all this other stuff, but they never asked for it. And, unfortunately, we were not given the opportunity to ask the investigators in this case why they didn't ask for it. Did y'all notice that none of them testified? None of the lead investigators testified. They've been sitting here all week: this end, that end, and then Agent -- Investigator Owens is sitting right behind them. None of them testified, so we couldn't ask questions. Why didn't you do this? Why didn't you look into this? Did

you follow up on something? Did you follow up when you got the DNA reports? Did you follow up on anything because they didn't put them on the stand. I cannot tell you why, but I can tell you they've been here all week, and y'all have not heard from them. We couldn't ask them any questions.

Now, the state has the burden. You, you'll hear from the judge. You heard from Mr. Goldberg. The burden of proof, the burden of proof is not a small thing. It is proof beyond a reasonable doubt. Proof beyond a reasonable doubt, everybody has a different definition on what that means. Everybody explains that differently when they're talking about it.

What it boils down to is hesitation, a hesitation to act, and the hesitation doesn't have to be long. The hesitation can be a split second. That's reasonable doubt. If you think for half a second, that's hesitation. If before you put your pen to paper you pause, that's hesitation. That's what beyond a reasonable doubt is. That's how you make this decision.

And y'all hold them to their burden; hold them to it. Making poor choices, not, not calling law enforcement, riding around in a car you know that you should not be driving around in does not mean that you are guilty of murder. It does not mean that you are

guilty of kidnapping. If that's the case, then Maria Howard should have been charged, too, because, y'all, she drove the car twice with her baby in it. Just because you do things that seem completely irrational -- because they are. It's completely irrational. To drive around in a car with blood in it does not mean that you are guilty of murder.

They have to prove that Nathaniel Rowland killed Samantha Josephson. Nothing on this table and nothing from that box proves that. They have to prove that he kidnapped Samantha Josephson. Again, nothing on this table and nothing from that stand proves that. They've created a narrative, and he's the villain in their narrative because for them, he is the easy answer. He is the simple answer. In this case, it's the wrong answer.

The state said that they, you know, they understand their burden; they welcome their burden. They don't have a choice. They have to meet their burden if y'all are going to vote to convict. They have to. They cannot reject it. It is their burden. Y'all hold them to it.

March 29, 2019, the unthinkable did happen. Samantha Josephson's life was cut short in the most violent way. Nobody is going -- nobody has stood up

here and told y'all that she deserved what happened or tried to blame her in any way, any way. What happened to her is tragic. It is heartbreaking, and this is an emotional case. It is an emotionally charged case. I know it. The state knows it. Everybody in here knows that, but as jurors -- I used to believe I could ask juries to put your emotions aside. Leave them at the door. Y'all are human beings. Me asking that of you is -- goes completely against human nature. You can't check your emotions. That's part of who we are.

What I can ask of you is not let your emotions dictate your decision. Don't let your emotions, the fact that this is a sad, tragic, heartbreaking case dictate your decision when you go deliberate. That's what I can ask of you.

The state has not proven that Nathaniel Rowland kidnapped Samantha Josephson. They have not proven that he has killed her, and they have not proven that he had a weapon during those crimes. What they proved is that he tried to sell her cell phone. He's not on trial for that. What they proved is that he did not call law enforcement when he should have. He's not on trial for that. They have failed at meeting their burden. I ask that you find him not guilty. Thank you.

THE COURT: Ladies and gentlemen, let's all stand

for a moment.

(A PAUSE.)

JURY CHARGE

THE COURT: Okay. Madame Foreperson and members of the jury, you have heard the testimony, received the evidence, and you have heard the arguments of the state and the defendant. I will now explain to you the law that applies to this case.

Under the constitution and laws of South Carolina, you are the finders of the facts in this case. I do not have the right to pass upon the facts or even to express any opinion that I might have as to them because this is a matter solely for you, the jury, to determine. As jurors, then, it is your duty to determine the effect, the value, and the weight of the evidence presented during this trial.

Now as the trial judge, it is my duty to and responsibility to preside over the trial of the case, and I also have the duty to pass upon the admissibility of the evidence offered during the trial. You are to consider only the testimony which has been presented from this witness stand, together with any other evidence or exhibits presented and made a part of the record, and any stipulations made by counsel.

I have the additional duty to charge you the law

applicable to this case and as the presiding judge, I am the sole judge of the law of this case. It is your duty as jurors to accept and apply the law as I now state it to you, then deliberate in an effort to reach your verdict. And finally, I charge you in this regard that you should not be concerned with what you think the law ought to be but what I charge you that the law is.

You are also the judges, the sole judges of the credibility -- that is, the believability -- of the witnesses who have testified and of the evidence which has been offered. In considering credibility, you may take into consideration many things, such as the demeanor or manner of testifying, whether the witness has reason to be biased or prejudiced, or whether a witness's testimony was contradicted on the one hand or corroborated and supported on the other hand. You may believe a small portion of a witness's testimony and disregard the larger or vice versa. All these things you will consider, bearing in mind that you should give the defendant the benefit of any reasonable doubt.

It becomes your duty as jurors to analyze and to evaluate the evidence and, and determine that evidence which convinces you of its truth. There are two types of evidence which are generally presented during a trial: direct evidence and circumstantial evidence.

Direct evidence directly proves the existence of a fact and does not require deduction. Circumstantial evidence is proof of a chain of facts and circumstances indicating the existence of a fact.

Crimes may be proven by circumstantial evidence. The law makes no distinction between the weight or value to be given to either direct or circumstantial evidence. However, to the extent the state relies on circumstantial evidence, the circumstances must be consistent with each other and, when taken together, point conclusively to the guilt of the accused beyond a reasonable doubt. If these circumstances merely portray the behavior of the defendant as suspicious, the proof has failed.

The state has the burden of proving the defendant guilty beyond a reasonable doubt. This burden rests with the state regardless of whether the state relies on direct evidence, circumstantial evidence, or some combination of the two.

Normally a person cannot give opinion testimony. When a person testifies, they must rely -- must testify as to what they either saw, heard, or sensed by smell or something of that nature. However, there is an exception when someone is qualified because of education or experience. These witnesses, expert witnesses, are

permitted to give their opinion in certain areas if the court qualifies them that way.

To give opinion testimony in that area, that does not mean that you must accept the opinion, but it is evidence for you to use in any way you see fit and give it the weight and credibility you believe is appropriate.

I instruct you and emphasize that the fact that the defendant did not testify is not a factor to be considered by you in any way in your deliberations and in your consideration on the question of the guilt or the innocence of the defendant. It must not be considered by you in any manner whatsoever. A defendant has the constitutional right to remain silent, and the assertion of this right must not be considered by you in your deliberations.

I repeat. Under your oath, you are to draw no conclusions whatsoever from the fact that the defendant did not testify. The fact that the defendant did not testify should not even be discussed in the jury room. The burden of proof, as I have stated to you, is on the state. The defendant is not required to prove his innocence. The burden of proof remains on the state to prove guilt beyond a reasonable doubt.

The fact that the defendant was arrested, charged,

and indicted in this case is not evidence and cannot be considered by you as evidence of guilt, nor does it create any presumption or inference of guilt. These indictments are simply the formal written instruments which contain the charges made against the defendant. The indictments are the formal documents by which this case is brought into this court.

The defendant has pled not guilty to each of these indictments. That plea puts the burden on the state to prove the defendant guilty. A person charged with committing a criminal offense in South Carolina is never required to prove himself innocent.

I charge you that it is an important rule of the law that the defendant in a criminal trial, no matter what the seriousness of the charge may be, will always be presumed to be innocent of the crime for which the indictment was issued unless guilt has been proven by evidence satisfying you of that guilt beyond a reasonable doubt.

This presumption of innocence does not end when you begin your deliberations, but it accompanies the defendant throughout the trial until you reach a verdict of guilt based on evidence satisfying you of that guilt beyond a reasonable doubt. The presumption of innocence is like a robe of righteousness placed about the

shoulders of the defendant which remains with the defendant until it has been stripped from the defendant by evidence satisfying you of the guilt of the defendant beyond a reasonable doubt.

The presumption of innocence is not a mere legal theory. It is not, not just a legal phrase. It is a substantial right to which every defendant is entitled unless you, the jury, are satisfied from the evidence of the guilt of the defendant beyond a reasonable doubt.

The state must prove the defendant guilty beyond a reasonable doubt. So, what is a reasonable doubt in the law? A reasonable doubt is a doubt which makes a reasonable, honest, sincere, and conscientious juror hesitate to act. Proof beyond a reasonable doubt must, therefore, be proof of such a convincing character that a reasonable person would not hesitate to rely and act upon it in the most important of his or her own affairs. Proof beyond a reasonable doubt can also be described as proof that leaves you firmly convinced of the guilt of the defendant.

Now, there are very few things in this world that we know with absolute certainty, and in criminal cases the law does not require proof that overcomes every possible doubt. If, based on your consideration of the evidence, you are firmly convinced that the defendant is

guilty of a crime charged, you must find him guilty. If, on the other hand, you think there is a real possibility that he's not guilty, you must then give him the benefit of the doubt and find him not guilty.

The indictments allege three different offenses against the defendant. The charges are kidnapping, murder, and possession of a weapon during commission of a violent crime. Each indictment charges a separate and distinct offense. You must decide each indictment separately on the evidence and the law applicable to it, uninfluenced by your decision as to any other indictment. The defendant may be convicted or acquitted on any or all of the offenses charged. You will be asked to write a separate verdict of guilty or not guilty for each indictment.

The defendant is charged with kidnapping Samantha Josephson. The state must prove beyond a reasonable doubt that the defendant knowingly and unlawfully seized, confined, inveigled, decoyed, kidnapped, abducted, or carried away another person without authority of law. To do a thing unlawfully is to do it willfully against the law. Knowingly means with knowledge, consciously, not accidentally. Seize means to take hold of suddenly or forcibly. Confined means to limit, restrict, or enclose within bounds, imprison,

shut, or keep it. Inveigle means to lure, entice, or lead astray by false representations, promises, or other deceitful means. Decoy means to lure by or -- or as if by decoy. A decoy is something to entice a person into a trap. Kidnap is to remove a person against her will by unlawful force or by fraud. Abduct means to carry off secretly or by force for an illegal purpose. Carry away means to remove.

The state does not have to prove that the defendant did all of these things. Instead, if you find beyond a reasonable doubt that the defendant did any of these things, you may find the defendant guilty of kidnapping.

Something done without authority of law is something which the law does not sanction, permit, allow, condone, or provide justification for. Kidnapping does not have to be for any personal or monetary gain, for any illegal purpose, but may be for any reason whatsoever.

The defendant is also charged with the murder of Samantha Josephson. The state must prove beyond a reasonable doubt that the defendant killed another person with malice aforethought. Malice is hatred, ill will, or hostility toward another person. It is the intentional doing of a wrongful act without just cause or excuse, and with an intent to inflict an injury, or

under circumstances that the law will infer an evil intent.

Malice aforethought does not require that malice exist for any particular time before the act is committed, but malice must exist in the mind of the defendant just before and at the time the act is committed. Therefore, there must be a combination of the previous evil intent and the act.

Malice aforethought may be expressed or inferred. These terms, expressed and inferred, do not mean different kinds of malice but merely the manner, manner in which malice may be shown to exist. That is, either by direct evidence or by inference from the facts and circumstances which are proven.

Expressed malice is shown when a person speaks words which express hatred or ill will for another, or when the person prepared beforehand to do act which was later accomplished. For example, lying in wait for a person or any other acts of preparation going to show that the deed was in the mind -- was within the mind of the defendant would be expressed malice. Malice may be inferred from conduct showing a total disregard for human life.

The defendant also is charged with possession of a weapon during the commission of a violent crime. The

state must prove beyond a reasonable doubt that the defendant was in possession of a weapon during the commission of a violent crime. A weapon is any article or instrument which is likely to cause death or great bodily harm. Whether an instrument has been used as a weapon depends on the facts and circumstances of each case.

In order to find the defendant guilty of possession of a weapon during the commission of a violent crime, you must find the defendant guilty of committing a violent crime. Murder is a violent crime. The state must prove beyond a reasonable doubt that the weapon furthered, advanced, or helped in the commission of a violent crime.

An issue in this case is the identification of the defendant as the person who committed the crimes charged. The state has the burden of proving identify beyond a reasonable doubt. You must be satisfied beyond a reasonable doubt of the accuracy of the identification of the defendant as the person who committed the crime or crimes before you may convict the defendant.

Identification can be proven by direct evidence, circumstantial evidence, or any -- or a combination of both. If, after examine examining the evidence, you have a reasonable doubt as to the accuracy of the

identification, you must find the defendant not guilty.

Now, while the arguments of counsel are a beneficial part of every trial, you should remember that the statements made by counsel are not evidence. In presenting their arguments, counsel often refer to the evidence. However, you should base your verdict on the evidence as you remember it. If there are any conflicts between the recollection of counsel about the evidence and your own recollection, you should rely on your own understanding of the evidence.

Now, Madame Foreperson and members of the jury, I am required to charge you the law as I have done through these instructions now being given to help guide you to a just and lawful verdict. Whether some of these instructions apply will depend upon what you find to be the facts. The fact that I have instructed you on various subjects must not be considered as indicating an opinion of this court as what you should find to be the facts or what your verdict should be.

Now, you've been chosen and sworn to give the parties a fair and impartial trial. When you have done so, you will have complied with your oath, and no one will have a right to criticize your verdict. You must not be influenced by opinions or expression of opinions you may have heard outside of the courtroom, but rather

should base your verdict solely on the testimony of the sworn witnesses who took the stand, the exhibits received into evidence, and the law which I have stated. You should not be swayed by caprice, passion, prejudice, or improper sympathy for or against anyone. Remember you have no friends to reward or enemies to punish, and all parties are entitled to a fair and impartial trial.

It is your duty as jurors to consult with one another and to deliberate in an effort to reach an agreement. Each of you must decide this case for yourself, but only after impartial consideration of all of the evidence with your fellow jurors.

In the course of your deliberations, do not hesitate to re-examine your own views and change your opinion if you become convinced it is erroneous. However, do not surrender your honest conviction as to the weight or effect of the evidence solely because of the opinion of your fellow jurors or for the mere purpose of returning a verdict.

As I stated earlier, you are the judges, judges of the facts. Your verdict must represent the considered judgment of each juror. In other words, your verdict must be unanimous.

Now, you may have noticed I have read these instructions. I do so to give you the law as accurately

as possible. I will give you a copy of these instructions to have in the jury room. You may refer to these instructions to assist you in your deliberations. You must consider the instructions as a whole and may not follow some and ignore others.

Madame Foreperson, it will be your duty to preside over the deliberations of the jury. If during your deliberations you should desire to communicate with the court, please reduce your message or question to writing signed by your foreperson and the foreperson only and pass the note to the bailiff, who will bring it to my attention. I will then respond as promptly as possible, either in writing or by having you return to the courtroom. I caution you, however, with regard to any message or question you might send that you should never state or specify your numerical division at the time.

Now, you have heard the evidence and you have heard the law. Whatever your verdict, Madame Foreperson, you will indicate it on the back of each indictment and then sign and date your verdict. Each indictment that will go back with you has a space for verdict on the back, and your verdict will be guilty or not guilty. Whatever your verdict, you write it below the word verdict. Sign and date it, Madame Foreperson.

Remember that although the foreperson is the only

juror who writes the verdict, it is not hers alone. The verdict has to be unanimous.

Madame Foreperson, you are not authorized to write the verdict until all of you have agreed to the verdict.

Now, ladies and gentlemen, I will send you to your jury room, and there will be -- the jury room will be a room where all of you will be together, but do not begin your deliberations until you receive a copy of this jury charge, the indictments, and the exhibits. Once you receive these things, that will be your signal to begin your deliberations.

Once you begin deliberations, you will deliberate until you have reached a verdict, at which time you will knock on the door, advise the bailiff, and we will bring you out to receive your verdict.

Certainly I understand that it's approaching lunchtime, and we have ordered lunch for everyone, and the order in which you eat or deliberate, Madame Forelady and members the jury, that is entirely up to you. Whether you want to break within the jury room and eat or deliberate first or deliberate while eating, it's in your hands whatever you do.

Now, we have selected four alternate jurors. Quite often during the course of the trial, something comes up and one juror cannot continue with deliberating or one

juror might have some personal issue or problem, and we have to then use an alternate juror, juror.

In this case, due to the length of the trial we picked four alternates. However, out of the first twelve jurors selected, if you have any reason why you cannot consider -- cannot continue with deliberations, please let me know at this time by raising your hand. If there are any problems within the first twelve jurors that would prevent you from deliberating in this case, if you have a problem, such a problem, please raise your hand.

(NO RESPONSE FROM JURORS.)

THE COURT: All jurors, therefore, appear to be in good shape and able to continue with deliberations, which means that the four alternates selected will remain with us in the courtroom while the other twelve jurors will report to the jury room. So, please report to the jury room at this time, all except the four alternates who were selected.

(THE JURY EXITS AT 12:43 P.M.)

THE COURT: Are there any additions or exceptions to the jury charge?

MS. PINNOCK: No, Your Honor.

MR. GOLDBERG: No, Your Honor.

THE COURT: All right. Thank you very much.

the state was instructed to redact it.

MS. SAMPSON: I believe those are the videos right there.

(A PAUSE.)

MS. SAMPSON: Number 5 is Niscia's body worn camera. Number 8 is Nunez and Number 9 is Kraft.

MS. PINNOCK: Yes.

THE COURT: Is defense satisfied with those exhibits?

MS. PINNOCK: Yes, Your Honor.

THE COURT: All right. They can begin deliberating.

(WHEREUPON, JURY DELIBERATIONS BEGIN AT 1:45 P.M.)

(OFF THE RECORD.)

THE COURT: I understand that there is a verdict. So, you may bring the jury.

(A PAUSE.)

THE COURT: I want to caution the entire audience against any outbursts. The decorum of the court must be kept at all times.

(THE JURY ENTERS AT 3:00 P.M.)

THE COURT: Madame Forelady, if you will stand for me, please? Have you reached a verdict?

FOREPERSON: Yes, sir, we have.

THE COURT: Is it unanimous?

FOREPERSON: Yes, sir, it is.

THE COURT: Okay. If you will pass it up, please, and you may be seated.

Defendant will rise.

Madame Clerk, you may publish the verdicts.

VERDICT

CLERK: Indictment number 2019-GS-40-2528, *The State of South Carolina v. Nathaniel David Rowland*. It's an indictment for possession of a weapon during commission of a violent crime. We, the jury, find the defendant guilty. This is signed foreperson, juror 130, July 27, 2021.

Indictment number 2019-GS-40-02450, *The State of South Carolina v. Nathaniel David Rowland*. It's an indictment for murder. We, the jury, find the defendant guilty. This is signed foreperson -- this is signed by the foreperson, juror number 130, July 27, 2021.

Indictment number 2019-GS-40-2453, *The State of South Carolina v. Nathaniel David Rowland*. It's an indictment for kidnapping. We, the jury, find the defendant guilty. This is signed foreperson, juror number 130, July 27, 2021.

Madame Foreperson, are these your verdicts and the verdicts of the entire jury?

FOREPERSON: Yes, ma'am.

THE COURT: Any individual polling requested?

MS. PINNOCK: Yes, Your Honor.

THE COURT: If you will poll the jurors individually by their juror numbers.

CLERK: Yes, Your Honor.

POLLING OF THE JURY

CLERK: Juror number 130, were these your verdicts?

JUROR: Yes.

CLERK: Are they still your verdicts?

JUROR: Yes.

CLERK: Juror number 469, were these your verdicts?

JUROR: Yes.

CLERK: Are they still your verdicts?

JUROR: Yes.

CLERK: Juror number 169, were these your verdicts?

JUROR: Yes.

CLERK: Are they still your verdicts?

JUROR: Yes.

CLERK: Juror number 516, were these your verdicts?

JUROR: Yes.

CLERK: Are they still your verdicts?

JUROR: Yes.

CLERK: Juror number 635, were these your verdicts?

JUROR: Yes.

CLERK: Are they still your verdicts?

JUROR: Yes.
CLERK: Juror number 72, were these your verdicts?
JUROR: Yes.
CLERK: Are they still your verdicts?
JUROR: Yes.
CLERK: Juror number 534, were these your verdicts?
JUROR: Yes.
CLERK: Are they still your verdicts?
JUROR: Yes.
CLERK: Juror number 73, were these your verdicts?
JUROR: Yes.
CLERK: Are they still your verdicts?
JUROR: Yes.
CLERK: Juror number 201, were these your verdicts?
JUROR: Yes.
CLERK: Are they still your verdicts?
JUROR: Yes.
CLERK: Juror number 103, were these your verdicts?
JUROR: Yes.
CLERK: Are they still your verdicts?
JUROR: Yes.
CLERK: Juror number 520, were these your verdicts?
JUROR: Yes.
CLERK: Are they still your verdicts?
JUROR: Yes.

CLERK: Juror number 414, were these your verdicts?

JUROR: Yes.

CLERK: Are they still your verdicts?

JUROR: Yes.

CLERK: Jurors have been polled, Your Honor.

THE COURT: The verdict of the jury is unanimous. Any posttrial motions?

MS. PINNOCK: May it please the court, Your Honor?

THE COURT: Yes.

MS. PINNOCK: Your Honor, at this time the defense would renew all of our pretrial motions, specifically but not limited to our motion to suppress because of the illegal stop that was performed on Mr. Rowland's car on March 30, 2019. We would renew all objections throughout the trial, Your Honor, and we would ask at this time for a new trial based on the brevity of the deliberations.

The court was presented with at least thirty-two witnesses, over 300 pieces of evidence, and by my count, Your Honor, the jury was out for an hour and seven minutes. So, we would ask for a new trial based on the brevity of deliberations from the jury.

THE COURT: Response by the state?

MR. GOLDBERG: Your Honor, we would just ask that you stand by your previous rulings.

THE COURT: In all the rulings made by the court, we listened to the arguments of the state and the defense. The police, investigating a missing person and coming upon Nathaniel Rowland at the location they did, had a reasonable suspicion to engage a traffic stop of his vehicle, which matched the description of the vehicle that Ms. Josephson entered. The court stands by its ruling regarding the sufficient basis to stop the vehicle. The court also affirms all of its previous rulings during the course of the trial.

With regard to the -- what the defense says is the brevity of the deliberations, the state presented a clear, cogent, convincing, and overwhelming case of guilt. The evidence was clear for the jury to see during the course of the past week. The jury reviewed the evidence in one hour and seven minutes, was a sufficient time for them to do that, and I respectfully deny the motion.

And, ladies and gentlemen, when you find someone guilty, then it becomes my duty to impose a sentence. And my experience tells me that all jurors are typically interested in seeing what happens beyond a verdict, and I invite you to stay for sentencing. We're going to move into that phase of it at this time.

By the state.

THE COURT: He is guilty of murder.

MS. ROWLAND: Yes, sir.

THE COURT: He is guilty of kidnapping.

MS. ROWLAND: Yes, sir.

THE COURT: He is guilty of possession of a weapon during the commission of a violent crime, and if you had any, any ---

MS. ROWLAND: But ---

THE COURT: --- testimony that you wanted to give the jury to consider, the trial was the time to do that. I'm not listening ---

MS. ROWLAND: Uh-huh.

THE COURT: --- to any claim of what he did not do. You are not a witness.

MS. ROWLAND: Okay. Well, he is a loving child. He is good person, very respectful and he respect others, and I thank the court.

THE COURT: Thank you.

MS. PINNOCK: If it please the court, Your Honor? Your Honor, I believe what Ms. Rowland was trying to ---

THE COURT: I heard her loud and clear, every word she said, and I don't know how you can tell me what you think she was trying to say, but go ahead.

MS. PINNOCK: Well, Your Honor, I would just respectfully request the same opportunity to address the

court as the Josephson family was given. Nathaniel's parents were not charged with anything. They were not convicted of anything, Your Honor.

THE COURT: I'm happy to hear, I am happy to hear from any and everyone who has something to say on behalf of the defendant. You will have the same opportunity that was provided the state.

MS. PINNOCK: Certainly, Your Honor. So, on behalf of Mr. Rowland's family, I would just like the court to know that they have stood behind him one hundred percent from the day of his arrest. His mother, father, brother, and sisters all believe in him. They have believed from the beginning that the wrong person had been charged, and they still hold that, they still hold that belief today. So on behalf of the family, I would like Your Honor to know that that is the family's position.

THE COURT: You know, innocence, that will not be taken into consideration in any form or fashion in deciding a sentence. We're in the sentencing phase of the trial.

MS. PINNOCK: Yes, Your Honor, I understand that. I was just letting you know what the family's intentions were and what they were trying to let Your Honor know.

They love Nathaniel Rowland. He is her son. His father is sitting here. His father has suffered a stroke over the past year and some change. His brother has been

here the whole time. His sister had to work a few days, but she's been here supporting him also. So, he's got a loving family who is in his corner and who are going to be by his side every day whatever sentence Your, Your Honor imposes upon him today.

Mr. Rowland maintains his innocence of these charges, Your Honor; he pled not guilty from the very beginning. We understand that the jury has reached a verdict, and we understand that verdict is unanimous, but Mr. Rowland maintains his innocence of these charges.

He is currently twenty-seven years old, Your Honor. You heard that 800 and some-odd days have gone by. He's been incarcerated since March 30 of 2019. Your Honor is fully aware, we all are, that murder has a mandatory minimum. He does not have any prior convictions on his record.

His family is all here. He does have the support of his community, Your Honor. You've heard that he was a pretty talented basketball player. He attended college. When he was in college, he worked in the dean's office. He was studying business management. Was not able to -- he was, he was not able to graduate, but he had goals of opening his own business and was working towards that prior to getting arrested.

On the night of his arrest, Your Honor, he was with

his girlfriend. She is still standing beside, beside him, behind him, you know, still believing in that relationship, Your Honor.

THE COURT: You said he was with his girlfriend.

MS. PINNOCK: Yes, sir.

THE COURT: Was it the same person that we heard from as a witness?

MS. PINNOCK: No, sir.

THE COURT: All right. Go ahead.

MS. PINNOCK: That relationship is still there. It's still strong, and she still supports him in every way you can imagine, Your Honor.

THE COURT: Is she here?

MS. PINNOCK: No, sir. She is not here today, but, Your Honor, I would ask you to sentence Nathaniel to the minimum thirty years. It is not a small amount of time. It is a day-for-day sentence. Being twenty-seven years old going in, he will be well into his seventies before that sentence is complete.

He does not have any sort of violent history. He has -- nobody that we've talked to -- you know, his family would tell you that he does not have a violent bone in his body. They don't understand it, Your Honor. He has no history of anything or any allegations like this in the, in the past and, Your Honor, we would respectfully ask that

you consider the minimum sentence and run all sentences concurrent.

THE COURT: All right. Thank you.

Anyone else who would like to speak on behalf of the defendant?

Yes, sir.

MR. ROWLAND: I'm, I'm...

THE COURT: You can remain seated if you want to. You can stand or sit.

MR. ROWLAND: I'm Henry Rowland. I'm Nathaniel Rowland's father. Now, Judge, I got four different kids besides Nathaniel, and believe me, I went through all his schooling, from kindergarten through college, and I was right there. I never seen any bad bone in his blood. He always been a determined child all through his life.

Now, I can't think what happened. I don't know what happened, but I know deep down in my heart this young man, he didn't do this.

I'm so sorry, I'm so sorry for Ms. Josephson's family. I am so sorry for her family. I know what they're going through because we went -- we go through the same thing because we cherish our children.

But I pray, I pray and hope that you be as lenient as possible with the evidence that was presented, and that's all. That's all I'm going to say. Thank you for

as I believe that language would be appropriate. And the other matter to consider from a sentencing standpoint, Judge, is the possession of a weapon during the commission of a violent crime. If Your Honor is to impose a numerical sentence, then I believe that you can obviously impose the five-year sentence. But as I read 16-23-5-90, that five-year sentence does not apply if Your Honor chooses to impose a life sentence.

THE COURT: If the defendant will come before the court for sentencing.

Mr. Rowland, during my time on the bench, I have presided over many murder trials, and they typically involve shootings. And with the -- what seems to be an epidemic of criminal activity now, on a monthly basis we encounter people accused of murder, people convicted of murder.

This is the first time, however, that I have presided over a case where a victim was stabbed 120 times. The last case I participated in where the victim a stabbed and tortured resulted in a jury imposing the death penalty, which in this state is defined as murder accompanied by aggravating circumstances, and certainly a kidnapping is an aggravated circumstance.

And I hear a lot of mothers tell me what a good child their child is, and quite often I have to, unfortunately,

tell the same mothers and fathers that your child was a good child, but that's when he was a child.

And my heart goes out to the Rowland family, as well as the Josephsons family. My heart goes out to someone from the same part of the state that I am from. You participated in sports at East Clarendon. I presume you played basketball against C.E. Murray. Did you? My high school. So, I take no joy whatsoever. When I looked at the map that was shown to the jury, the telephone towers when the officer, witness testified that there is another tower over here, the map showed that that tower is in Kingstree where my chambers are. So, it's just painful but not nearly as painful as the suffering by the Josephson family.

Is there anything you would like to say?

DEFENDANT: Your Honor, I know I'm innocent, but I guess what I know and what I think really doesn't matter. I just wish the state would have, would have done more in finding out who the actual person was instead of being satisfied with, with detaining me and proving my guilt. I feel like they, if they would have done further research in certain areas -- that's all I have.

THE COURT: I've sentenced a number of murderers, many of whom have confessed, and I ask them. Tell me about, tell me about the murder. Tell me about the time you

pulled the trigger, and I have yet to have one who could go back there. Every one, each of them have blotted the whole thing out of their mind as if it never occurred, and they can't take their mind back there sufficient to tell me. And I imagine they live in torment the rest of their days because they can't.

The evidence in this case was -- you know, I chose the word an avalanche of evidence, and now I've seen it repeated a few times. I've heard it repeated, but the evidence in this case was so overwhelming. Law enforcement in this case did the best job of investigating a case that I have seen over the past thirty or forty years. Every law enforcement officer that was available participated apparently in working this case, and if there were a thousand roads, each road left to you -- led to you. If there were a thousand trails, each trail led to you. All of the evidence, every speck of the evidence, not simply beyond a reasonable doubt, but as high a standard as the law requires all points to your guilt, and I am absolutely satisfied.

I can certainly understand the family being in total disbelief that the child that they raised could do such a heinous thing, could commit such a murder, and I have dealt with the heartless. And you fall into that category, a person without any remorse whatsoever. A person who is

totally emotionless, and in the law we call it a depraved heart. And it would be absolutely astonishing, amazing to me for the truth to be that you have engaged in this activity all of a sudden: that there are not signs that your family can point to, that your friends can point to where if some intervention had taken place, this young lady would have been protected. I don't know that, but as much is your mom feels in the bottom of her soul or pit of her stomach about you, I feel that same thing based on my experience and based on my observing you and witnessing the evidence in this case.

So, I want to thank the jury for your focus on this case. I noticed that you all were totally engaged and attentive. Thank you very much on behalf of the citizens of Richland County and the citizens of the State of South Carolina.

South Carolina is a wonderful state, a lovely place, and people from all over the country, particularly the Northeast, choose South Carolina because of its beauty and charm and people, and Columbia for all of the same reasons: because we live in such a wonderful state, such a diverse state where there are opportunities for everyone.

And certainly opportunities for you, and for you to have attended South Carolina State University, if your parents have given you as much as they gave you, and for

I have two daughters, one of whom sit in this seat more often than I do, and another of whom live in a city who have to encounter people on a daily basis, and I have sons. I would like to think I know my sons and my daughters very well. Certainly I would be in disbelief if any of them were to find themselves standing in a spot like you.

But even more so, the terror imposed on their child and the pain and grief that you have caused. She was an amazing person, an amazing human being. The testimony is here, and she obviously put up an amazing fight against you and left a sufficient trail for the jury to see what you did.

You're not a dumb person; you're not an unintelligent person. You have an -- you've been educated, trained, and you have a degree of intelligence. You certainly had the ability to choose a different course, but there is no perfect crime these days with forensic evidence. Your whole twenty-four hours was re-created almost minute by minute, mile by mile, digit by digit. That's led you here, and you have now been found guilty, and sentencing in this case is not difficult. The sentence in this case is easy, though painful it may be.

SENTENCE OF THE COURT

THE COURT: The sentence of the court for murder is

that you be committed to the State Department of Corrections for life. Any other sentence that can be imposed will be concurrent with life. Since you only have one life, that sentence must be served for the remaining days of your natural life. That's the sentence of the court.

If you will remove Mr. -- from the courtroom, Mr. Rowland.

Just as a comment regarding Mr. Rowland being able to interact with his family during the trial. First, he was chained. We would never let a person who was incarcerated roam freely. He was chained and guarded by law enforcement. But I believe in the presumption of innocence and for a person not to be punished prior to conviction.

Thank you all very much. Thank you all for a job well done. Thank you for the manner in which all of you have acted in the courtroom.

And, ladies and gentlemen, you have done your service on jury duty. You may retire.

Congratulations on a job well done, Madame Forelady.

And all of you. I don't know who did the best job. It's always painful, but each of you all did your jobs equally, especially to the law student back there who had given me his 403 already to sign. I'm sure it will be a lesson that you will not duplicate in law school and an

opportunity that Samantha will not have an opportunity, sadly, will not have an opportunity to experience.

So, thanks to all. Court is adjourned.

Jurors, if you will all go this way, please, following the bailiffs.

(THE JURY EXITS AT 4:06 P.M.)

THE COURT: To the media, I have an additional order, an amended order that will be circulated.

(DEFENDANT'S REQUEST TO CHARGE MOVED INTO EVIDENCE AS COURT'S EXHIBIT NUMBER 9.)

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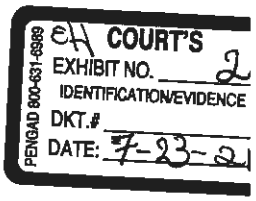


STATE OF SOUTH CAROLINA **COUNTY OF RICHLAND**	)	**IN THE COURT OF GENERAL SESSIONS** **Indictment Numbers: 2019GS4002450, 2019GS4002453, 2019GS4002528** **Warrant Numbers: 2019A4010201357, 2019A4010201358, DP19083**
The State of South Carolina, **vs.** **Nathaniel Rowland** **Defendant.**	)	**Memorandum in Support of Motion to Exclude Testimony Relating to Handwriting Comparison**

To: **THE HONORABLE JUDGE CLIFTON NEWMAN**
CC: Deputy Solicitor Daniel Goldberg

The Defendant, Nathaniel Rowland, through his undersigned attorney, Assistant Public Defender Tracy Pinnock, moves to exclude any testimony regarding Handwriting analysis and comparisons by Mr. John Jamieson a Forensic Scientist at the South Carolina Law Enforcement Division (SLED) under South Carolina Rules of Evidence 401 and 403. Additionally, Counsel objects to allowing testimony by Mr. Jamison for failing to satisfy the requirements of S.C.R.E. 702.

The Defendant, Nathaniel Rowland has been charged with Murder, Possession of a Weapon during the Commission of a Violent Crime, and Kidnapping. The allegations arise from an incident that occurred between March 29, 2019 and March 30, 2019. The deceased was seen on video surveillance entering a black Chevrolet Impala at approximately 2:09 a.m.. Her body was located at approximately 3:30pm in Clarendon County, South Carolina. In the early morning hours of March 30, 2019 Rowland was stopped by the City of Columbia Police Department while traveling through the Five Points area of Columbia. Rowland pulled over on Saluda Ave, and a foot chase ensued. Rowland was apprehended and his vehicle was searched. The search of the vehicle revealed a number of brown

stains, that was later determined to be blood. A number of item were removed from the vehicle due to blood being present. Swabs of those stains were collected by Crime Scene Investigators and submitted to the SLED DNA for further testing.

Additional items collected from the vehicle were submitted to the SLED lab for different testing, one of which was Questioned Document. According to the information provided to the Defense through the Discovery Process, an envelope was collected from the center console of the vehicle, and on this envelope was a hand written list. Agents from SLED secured search warrants for Rowland's employment records from both Capital Waste Management and FedEx. All three items were submitted to the Questioned Documents department for a handwriting comparison.

Mr. Jamison testified before this court on Friday, July 16, 2019, and informed the court that he was provided these documents in a sealed evidence bag. These items were logged in to evidence as the following: Item 8, which is Eighteen (18) standards bearing the known writing of Nathaniel Rowland; Item 21, Sixteen (16) standards bearing the known writing of Nathaniel Rowland; and Item 22, One (1) envelope with black colored writings beginning with "4 duck tape." He further testified that he started his comparison on April 4, 2019 and concluded on April 8, 2019. The Report was issued on April 8, 2019. (Attached). The result indicated on this report states: "It is probable (meaning a high degree of likelihood) that the writer of Item 8 and 21 (Nathaniel Rowland) wrote Item 22. The lack of directly comparable known writings was one of the limiting factors in the examination." The report goes further to state that "the submission of known standards from the writer of Items 8 and 21 (Nathaniel Rowland) may be of assistance." (Report pg. 2) Mr. Jamison testified that he provided a "report terminology" list that is located on page 3 of his report. When asked about what "Identification" means, Mr. Jamison explained that it means the writer of the known document has been identified as the writer of the questioned document. When asked about what

"Strong Probability" Mr. Jamison testified that this means he was fairly certain that the same writer wrote both documents. Both "Identified" and "Strong Probability" are listed as stronger matches than "Probable."

The testimony of Mr. Jamieson should be excluded from being presented during the State's case-in-chief. Allowing Mr. Jamieson to testify would be admitting testimony that is irrelevant. Rule 401 of the South Carolina Rules of Evidence defines "relevant evidence" as "evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence." S.C.R.E. 401 (1995). The simple fact that Mr. Jamieson's report does not identify Nathaniel Rowland as the writer of the questioned document goes to show that the testimony would not make a fact more or less probable. The only goal this testimony would accomplish is to have the jury ***assume*** that Nathaniel Rowland was the writer on the questioned document (Item 22), which is improper.

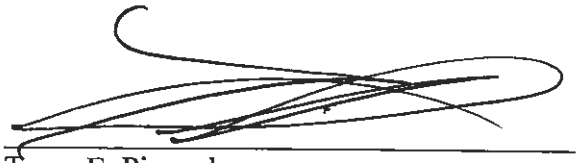
Additionally, the testimony regarding the questioned documents does not meet the requirements of Rule 702 of the South Carolina Rules of Evidence. Rule 702 states: "If scientific, technical, or other specialized knowledge ***will assist the trier o fact to understand the evidence or to determine a fact at issue***, a witness qualified as an expert…may testify thereto in the form of an opinion…." S.C.R.E. 702 (1995)(emphasis added). The results reached by Mr. Jamieson will not assist the trier of fact in determining a fact at issue, because the report itself does not conclusively determine if Mr. Rowland is the writer of Item 22. To suggest otherwise, without a known sample being submitted for further comparison would require that Mr. Jamieson assume an opinion, not based on his examination or report conclusions, thus leading the jury to believe an assumption by an expert witness. The examiner did not identify Mr. Rowland as the writer, and as such, should not testify to the jury to suggest that he did. The requirements of Rule 702 are not satisfied.

The State has the burden of proving Nathaniel Rowland guilty of murder, kidnapping and possession of a weapon during the commission of a violent crime. The State has the burden of attempting to gain a conviction by presenting relevant evidence to the jury, in such a way as to not purposefully confuse or mislead the jury in seeking a conviction. The State has had every opportunity, over the past two years to provide a known standard to SLED, via a Schmerber motion, to submit for further comparison. Mr. Jamieson requested this information on April 8, 2019. During testimony presented to the Court on July 16, 2019 Mr. Jamieson informed the Court that the additional sample would allow for further comparison, and possibly reach a different conclusion after that comparison. The State took no action to request an Order to obtain a known sample from Mr. Rowland to provide to Mr. Jamieson. Rule 403 states that "[a]lthough relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury...." S.C.R.E 403 (1995). The State should be barred from offering an opinion of an expert witness to the jury in order to mislead the jury as to be nature of the evidence.

Nathaniel Rowland, through his attorney, respectfully request that this Court exclude any testimony from Mr. Jamieson regarding his comparison of these three items. The testimony fails to meet the requirements of Rule 702, and Rule 401. Additionally, if the Court determines there is any relevance to this testimony, the testimony should still be excluded for failing the Rule 403 balancing test. The testimony of the SLED analyst will do nothing except persuade the jury to *assume* that Nathaniel Rowland authored all three documents. The report generated by Mr. Jamieson does not identify Mr. Rowland as the writer. The report indicates that its probable, however, the State failed to provide the requested additional information to the examiner, so further attempts of at identification were not taken.

For the above reasons, the Defense objects to any and all testimony by Mr. John Jamieson,

Forensic Scientist at the South Carolina Law Enforcement Division.



Tracy E. Pinnock
Attorney for Defendant
Richland County Public Defender's Office
P.O. Box 192
Columbia, South Carolina 29202
(803) 765-2592

Columbia, South Carolina

This 19 day of July, 2021

SOUTH CAROLINA LAW ENFORCEMENT DIVISION

FORENSIC SERVICES LABORATORY REPORT

HENRY D. MCMASTER
Governor

MARK A. KEEL
Chief

April 08, 2019

Kristina Gainey
South Carolina Law Enforcement Division
4400 Broad River Road
Columbia, SC 29210

QUESTIONED DOCUMENT
SLED LAB: L19-06797
Your Case No: 32190042
Incident Date: 3/29/2019
[V] Samantha Josephson
[S] Nathaniel Rowland

This is an official report of the South Carolina Law Enforcement Division Forensic Services Laboratory and is to be used in connection with an official criminal investigation. These examinations were conducted under your assurance that no previous examinations of person(s) or evidence submitted in this case have been or will be conducted by any other laboratory or agency.

Mark A. Keel, Chief
South Carolina Law Enforcement Division

ITEMS OF EVIDENCE:

Item: 8	Eighteen (18) standards bearing the known writings of Nathaniel Rowland
Item: 21	Sixteen (16) standards bearing the known writings of Nathaniel Rowland
Item: 22	One (1) envelope with black colored writings beginning with "4 duck tape"

RESULTS OF EXAMINATION:

It is probable (meaning a high degree of likelihood) that the writer of Items 8 and 21 (Nathaniel Rowland) wrote Item 22. The lack of directly comparable known writings was one of the limiting factors in the examination.

The obliteration beside "Job" on Item 22 appears to read "10".

The obliteration under the "K" of the word "Black" on Item 22 appears to read "C".

The obliteration under the "4" and the obliteration at the bottom of Item 22 could not be deciphered.

FOR INVESTIGATIVE PURPOSES ONLY:

The submission of known standards from the writer of Items 8 and 21 (Nathaniel Rowland) may be of assistance. The standards should be written to dictation using a ballpoint pen on blank envelopes, and should fully duplicate all of the questioned material verbatim. The standards should also include additional known course of business samples. Possible sources for course of business samples include cancelled checks and other bank related documents, letters and diaries, employment and education related documents, tax forms, medical forms, as well as prison/police/inmate/court related documents. Machine copies are acceptable as known standards.

Any subsequent submissions made on this case should include all of the previously submitted items.

This report contains the conclusions, opinions and interpretations of the analyst whose signature appears below.

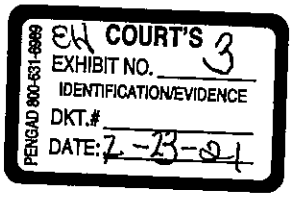
John (Jack) Jamieson
Forensic Scientist

The following is a progressive list of the examiner's reporting options regarding the association(s) determined to exist between the known and questioned evidentiary items; this list may assist in the interpretation of the examiner's reported results.

REPORT TERMINOLOGY

- **Identification**
- **Strong Probability (meaning almost certain)**
- **Probable (meaning a high degree of likelihood)**
- **Indications (meaning a degree of likelihood)**
- **No Conclusions (meaning cannot be eliminated nor identified)**
- **Indications Did Not (meaning a degree of likelihood)**
- **Probable Did Not (meaning a high degree of likelihood)**
- **Strong Probability Did Not (meaning almost certain)**
- **Elimination**

STATE OF SOUTH CAROLINA **COUNTY OF RICHLAND**	)	**IN THE COURT OF GENERAL SESSIONS** **Indictment Numbers: 2019GS4002450, 2019GS4002453, 2019GS4002528**
	)	**Warrant Numbers: 2019A4010201357, 2019A4010201358, DP19083**
The State of South Carolina,	)	
vs.	)	**Memorandum in Support of Motion to Exclude Testimony Relating to DNA Samples**
Nathaniel Rowland **Defendant.**	)	



To: **THE HONORABLE JUDGE CLIFTON NEWMAN**
CC: Deputy Solicitor Daniel Goldberg

The Defendant, Nathaniel Rowland, through his undersigned attorney, Assistant Public Defender Tracy Pinnock, moves to exclude any DNA testimony relating to the below listed items for failing to satisfy the balancing test set forth under S.C.R.E 403 as well as testimony being irrelevant pursuant to S.C.R.E 401. Additionally, Counsel objects to allowing testimony by any expert witness on the below listed items for failing to satisfy the requirements of S.C.R.E 702.

The Defendant, Nathaniel Rowland has been charged with Murder, Possession of a Weapon during the Commission of a Violent Crime, and Kidnapping. The allegations arise from an incident that occurred between March 29, 2019 and March 30, 2019. The deceased was seen on video surveillance entering a black Chevrolet Impala at approximately 2:09 a.m.. Her body was located at approximately 3:30pm in Clarendon County, South Carolina. In the early morning hours of March 30, 2019 Rowland was stopped by the City of Columbia Police Department while traveling through the Five Points area of Columbia. Rowland pulled over on Saluda Ave, and a foot chase ensued. Rowland was apprehended

and his vehicle was searched. The search of the vehicle revealed a number of brown stains, that was later determined to be blood. A number of item were removed from the vehicle due to blood being present. Swabs of those stains were collected by Crime Scene Investigators and submitted to the SLED DNA for further testing. The investigation later lead law enforcement to execute a search warrant at 7525 Mountain Brook Dr. During the execution of the search warrant, a number of items were collected from the home with blood on them. These items were also submitted to the DNA lab for further testing. On December 5, 2019, a supplemental DNA report was generated, by Ryan DeWane, a Forensic Scientist with SLED, listing a number of items involved in this case. (Report attached) Specifically, the Defendant moves to exclude testimony regarding item #108.3.6 (Swab taken from the interior of glove C), Item #108.3.2 (Cutting from wad of paper towels from miscellaneous contents removed from bag), and Item #104.2 (swab from inner edges of multi-tool), Item #131.1.2.1 (Cutting from left leg thigh area of pants), and Item #130.2 (Swabs from handles of item 130) pursuant to S.C.R.E 401, S.C.R.E 403, andS.C.R.E 702.

South Carolina Rule of Evidence 702 states that "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise." S.C.R.E. 702 (1995). The DNA report issued on December 5, 2019 indicates that the result of the DNA comparison for item #108.3.6, involving Nathaniel Rowland's potential profile, is "an uninformative statistical result was obtained. No conclusion can be made regarding Nathaniel Rowland as a possible contributor to this mixture under the listed propositions." (DNA Analysis report pg. 46). The same result was reached for Item #130.2. (DNA

Analysis report pg. 54). The Supreme Court of South Carolina has acknowledged that "DNA evidence is well known as a powerful and accurate evidentiary tool for the State to solve crimes and obtain convictions." State v. Phillips, 430 S.C. 319, 329 (2020). However, the Court also recognizes that "DNA evidence has also come to be known for its potential to confuse, and mislead jurors." Id. If the DNA analyst were permitted to present testimony to the jury in this case regarding an "uninformative statistical result" the dangers of misleading the jury are clearly present. The Court received testimony on Friday, July 16, 2021 from Dr. Norah Rudin and Ms. Ryan DeWane. Both witnesses testified that an "uninformative statistical result" offers no information to a juror as to the identity of the DNA profile contributor. The requirements of Rule 702, of the South Carolina Rules of Evidence, require that for an expert to offer an opinion, that opinion must "***assist the trier of fact to understand the evidence or to determine a fact at issue....***" S.C.R.E 702 (1995). There is no conclusion that can be reached by a jury to determine if Nathaniel Rowland is a contributor to these profiles. Ms. DeWane admitted this fact during testimony. The risk of having this testimony presented to the jury is that the jury most likely will believe there is *some* DNA present of Mr. Rowland in these two profiles. During the hearing, the State argued to the Court that the testimony could be explained by the analyst by simply testifying that she can not say if Rowland's DNA is present or not, and that the test is "right in the middle" as pertaining to Mr. Rowland being a contributor to the sample. This explanation is insufficient to cure the confusing effects of this testimony. Allowing the witness to "explain" that she cannot say whether Rowland contributed to this mixture or did not contribute to the mixture, will suggest to the jury that there is a chance Nathaniel Rowlands DNA is present in the mixture. The Phillips Court correctly noted, "jurors place a great

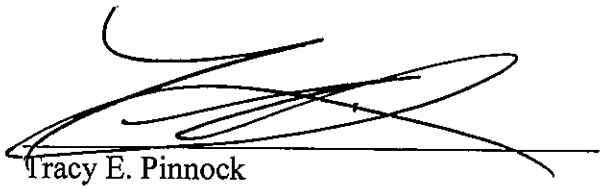
deal of trust in the accuracy and reliability of DNA evidence. But this evidence has the potential to be highly technical and confusing in a way that could unduly affect the outcome at trial." Phillips, at 329. (citing, Whack v. State, 433 Md 728, 73 A.3d 186, 188 (Md. 2013)). When considering whether expert testimony will be admitted during a trial, the trial judge must act as a gatekeeper when considering the requirements of Rule 702, and when there are Rule 403 objections. When an objection is made under Rule 403, the proponent of the evidence must demonstrate the probative value of the evidence substantially outweighs the dangers of unfair prejudice, confusion of the issues, or misleads the jury. S.C.R.E 403 (1995). There is no probative value present in allowing a DNA analyst to testify that a profile comparison yielded no result. The results of these two items when considering Mr. Rowland do not "have any tendency to make the existence of any fact that is of consequence to the determination of the action more or less probable that it would be without the evidence. S.C.R.E 401 (1995). The comparison of Mr. Rowland's DNA profile to item #130.2 and item #108.3.6 provides no information on the **identity** of the contributor; and will not be able to assist the tier of fact in determining the identity of the contributor. The testimony should be excluded in this case for being irrelevant under Rule 401, failing to meet the requirements of Rule 702 and failing the balancing test of Rule 403 of the South Carolina Rules of Evidence.

Defense Counsel also objects to any testimony from the DNA analyst regarding Item #104.2, item #108.3.2, and item #131.1.2.1. The SLED report indicates that for item #104.2 "the DNA profile is approximately 49 [forty nine] times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture." (DNA Analysis report pg.

32). The result for item #108.3.2 is documented as "...approximately 3 [three] times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture." (DNA Analysis report pg. 42). The result for item #131.1.2.1 states that "the DNA profile is approximately 55 [fifty five] times more likely if Nathanial Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture." (DNA Analysis report pg. 58) During the testimony presented on July 16, 2021, Dr. Rudin testified that when a Likelihood Ratio falls in the "Weak Support" category, there are concerns that analyst must be aware of when considering ratios involving smaller numbers. Dr. Rudin testified that the concern is the greater risk for false positives and false negatives. The report provided by SLED indicates that the "Weak Support" range is between 2 to 99. (DNA Analysis report pg. 66) Allowing the analyst to testify about Rowland being a contributor to the mixture, when the "match" itself is categorized as being weak, presents a clear danger of misleading the jury under Rule 403. DNA evidence, as stated above, is complicated and is often times very difficult for a jury to understand. Each DNA profile developed for these items interpreted the profiles to be a mixture originating from three people. In each of these profiles, the DNA of the deceased has an extremely strong probability of being included in the mixture. However, when looking at the results for Rowland's profile, it falls on the complete opposite end of the scale. Dr. Rudin warned of the dangers of false positives during her testimony, and the State offered no testimony to rebut that concern. When considering all results from these particular items, it would be extremely misleading and confusing for the jury to hear testimony of the strength of the deceased profile followed by the weakly supported

possibility that Rowland also contributed to the profile. The only logical conclusion that could be reached by the jury in this circumstance is that the DNA on these items is clearly that of Nathaniel Rowland. Testimony regarding items #104.2, #108.3.2, and item #131.1.2.1 should be barred regarding the weak supported inclusion of Nathaniel Rowland's profile under S.C.R.E. 403. The danger of unfair prejudice and misleading the jury substantially outweighs any probative value the evidence may have.

When considering whether to admit scientific evidence under S.C.R.E 702, a trial judge must find that the evidence will assist the trier of fact. As the Phillips Court recognized, DNA evidence has come to be known for its potential to confuse and mislead jurors. Phillips, 430 S.C. 319 (2020). Counsel respectfully request that this Court bar any testimony from the above listed items as they relate to Nathaniel Rowland being a possible contributor to DNA profiles on items #104.2, #108.3.2, #108.3.6, #130.2 and #131.1.2.1 pursuant to the South Carolina Rules of Evidence; Rule 401, 403, and 702.



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Columbia, South Carolina
This 19 day of July, 2019

SOUTH CAROLINA LAW ENFORCEMENT DIVISION

FORENSIC SERVICES LABORATORY REPORT

HENRY D. MCMASTER
Governor

MARK A. KEEL
Chief

December 05, 2019

Kristen Grant
South Carolina Law Enforcement Division
4400 Broad River Road
Columbia, SC 29210

DNA ANALYSIS

SLED LAB: L19-06797
Your Case No: 32190042
Incident Date: 3/29/2019
[V] Samantha Josephson
[S] Nathaniel Rowland
[E] Xavier McFadden
[E] Marcus Dewayne Williams
[E] Maria Howard
[E] Oshamar Williams
[E] Derod Fleming
[O] Marci Josephson
[O] Seymour Josephson

This is an official report of the South Carolina Law Enforcement Division Forensic Services Laboratory and is to be used in connection with an official criminal investigation. These examinations were conducted under your assurance that no previous examinations of person(s) or evidence submitted in this case have been or will be conducted by any other laboratory or agency.

Mark A. Keel, Chief
South Carolina Law Enforcement Division

SUPPLEMENTAL

COMPARISON STANDARDS

1 **Buccal swabs from Samantha Josepbson**

RESULTS:

- The DNA profile developed is suitable for use as a known standard.
- Likelihood Ratios (LR) for this profile were calculated using FBI PopStats.
- The DNA profile developed from Samantha Josephson is consistent with being from a biological offspring of Marci Josephson and Seymour Josephson.
- It is approximately 660 quadrillion (6.6E17) times more likely to see these genetic results if Marci Josephson and Seymour Josephson are the biological parents of Samantha Josephson than if two random unrelated individuals are the biological parents. Given the genetic evidence, greater than 99.99% of randomly tested individuals would be excluded as the possible biological parents of Samantha Josephson.

6 **Buccal swabs from Marci Josephson**

RESULTS:

• The DNA profile developed is suitable for use as a known standard.

7 **Buccal swabs from Seymour Josephson**

RESULTS:

• The DNA profile developed is suitable for use as a known standard.

9 **Buccal swab from Xavier McFadden**

RESULTS:

• The DNA profile developed is suitable for use as a known standard.

• The Y-STR profile developed is suitable for use as a known standard.

10 **Buccal swabs from Nathaniel Rowland**

RESULTS:

• The DNA profile developed is suitable for use as a known standard.

• The Y-STR profile developed is suitable for use as a known standard.

97 **Buccal swabs from Marcus Dewayne Williams (labeled as, "Marcus Duane Williams")**

RESULTS:

• The DNA profile developed is suitable for use as a known standard.

• The Y-STR profile developed is suitable for use as a known standard.

109 **Buccal swabs from Maria Howard**

RESULTS:

• The DNA profile developed is suitable for use as a known standard.

123 **Buccal swabs from Oshamar Williams**

RESULTS:

• The DNA profile developed is suitable for use as a known standard.

• The Y-STR profile developed is suitable for use as a known standard.

137 **Buccal swab from Derod Fleming**

RESULTS:

• The DNA profile developed is suitable for use as a known standard.

• The Y-STR profile developed is suitable for use as a known standard.

ITEMS OF EVIDENCE

2 **Swabs from left shoe back white in color portion of Nathaniel Rowland**

RESULTS:

• Presumptive testing for blood was positive.

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set I:**

  • The DNA profile was interpreted as a mixture originating from two individuals.

  • Hp = Samantha Josephson and an unidentified unrelated individual contributed to the mixture.

  • Hd = Two unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 3.8 septillion (3.8E24) times more likely if Samantha Josephson and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set II:**

• The DNA profile was interpreted as a mixture originating from two individuals.

• Hp = Nathaniel Rowland and an unidentified unrelated individual contributed to the mixture.

• Hd = Two unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 30 (3.0E1) times more likely if Nathaniel Rowland and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set III:**

• The DNA profile was interpreted as a mixture originating from two individuals.

• Hp = Samantha Josephson and Nathaniel Rowland contributed to the mixture.

• Hd = Two unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 640 septillion (6.4E26) times more likely if Samantha Josephson and Nathaniel Rowland contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

• The LR for Proposition Set III was calculated to confirm that the mixture could be explained by the contribution of DNA from all individuals listed under Hp. Due to the disparity in the individual LRs between the contributors for this item, it is recommended to put more weight on the results of Proposition Set II rather than the results of Proposition Set III when considering Nathaniel Rowland as a possible contributor to the mixture.

3 **Swabs (labeled as, "from rear driver door side interior panel")**

RESULTS:

• Presumptive testing for blood was positive.

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

- **Proposition Set:**

  - The DNA profile was interpreted as a mixture originating from two individuals.

  - Hp = Samantha Josephson and an unidentified unrelated individual contributed to the mixture.

  - Hd = Two unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 3 septillion (3.0E24) times more likely if Samantha Josephson and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

4 **Swabs from underneath fingernails of right hand of Nathaniel Rowland**

RESULTS:

- A DNA profile suitable for comparison was developed.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

- **Proposition Set I:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Hp = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

  - Hd = Three unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 130,000 (1.3E5) times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

- **Proposition Set II:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Nathaniel Rowland is contributing to the mixture.

  - Hp = Nathaniel Rowland, Samantha Josephson, and an unidentified unrelated individual contributed to the mixture.

  - Hd = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 94 million (9.4E7) times more likely if Nathaniel Rowland, Samantha Josephson, and an unidentified unrelated individual contributed to the mixture than if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set III:**

  • The DNA profile was interpreted as a mixture originating from three individuals.

  • Nathaniel Rowland is contributing to the mixture.

  • Hp = Nathaniel Rowland, Xavier McFadden, and an unidentified unrelated individual contributed to the mixture.

  • Hd = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

• Xavier McFadden is excluded as a contributor to the mixture under the listed propositions.

• **Proposition Set IV:**

  • The DNA profile was interpreted as a mixture originating from three individuals.

  • Nathaniel Rowland is contributing to the mixture.

  • Hp = Nathaniel Rowland, Marcus Dewayne Williams, and an unidentified unrelated individual contributed to the mixture.

  • Hd = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

• An uninformative statistical result was obtained. No conclusion can be made regarding Marcus Dewayne Williams as a possible contributor to the mixture under the listed propositions.

• **Proposition Set V:**

  • The DNA profile was interpreted as a mixture originating from three individuals.

  • Nathaniel Rowland is contributing to the mixture.

  • Hp = Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture.

  • Hd = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 50 (1/2.0E-2) times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture.

• **Proposition Set VI:**

  • The DNA profile was interpreted as a mixture originating from three individuals.

  • Nathaniel Rowland is contributing to the mixture.

  • Hp = Nathaniel Rowland, Oshamar Williams, and an unidentified unrelated individual contributed to the mixture.

  • Hd = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 71 (1/1.4E-2) times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if Nathaniel Rowland, Oshamar Williams, and an unidentified unrelated individual contributed to the mixture.

• **Proposition Set VII:**

  • The DNA profile was interpreted as a mixture originating from three individuals.

  • Nathaniel Rowland is contributing to the mixture.

  • Hp = Nathaniel Rowland, Derod Fleming, and an unidentified unrelated individual contributed to the mixture.

  • Hd = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

• Derod Fleming is excluded as a contributor to the mixture under the listed propositions.

5 **Swabs from underneath fingernails of left hand of Nathaniel Rowland**

RESULTS:

• The DNA profile developed is a mixture of at least five individuals.

• Due to the complexity of this mixture, no further interpretation will be offered.

11 Suspected hair from right hand of Samantha Josephson

11.1 Suspected hair

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as single source.

  • Hp = Samantha Josephson contributed the DNA profile.

  • Hd = An unidentified unrelated individual contributed the DNA profile.

• The DNA profile is approximately 6.8 septillion (6.8E24) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

11.2 Suspected hair

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as single source.

  • Hp = Samantha Josephson contributed the DNA profile.

  • Hd = An unidentified unrelated individual contributed the DNA profile.

• The DNA profile is approximately 7.1 quintillion (7.1E18) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

12 **Suspected hair from right hand of Samantha Josephson**

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as single source.

  • Hp = Samantha Josephson contributed the DNA profile.

  • Hd = An unidentified unrelated individual contributed the DNA profile.

• The DNA profile is approximately 6.8 septillion (6.8E24) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

13 **Suspected hair from right hand of Samantha Josephson**

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as a mixture originating from two individuals.

  • Hp = Samantha Josephson and an unidentified unrelated individual contributed to the mixture.

  • Hd = Two unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 4 septillion (4.0E24) times more likely if Samantha Josephson and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

• No Y-STR profile was developed.

14 Suspected hair from left hand of Samantha Josephson

14.1 Suspected hair

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as single source.

  • Hp = Samantha Josephson contributed the DNA profile.

  • Hd = An unidentified unrelated individual contributed the DNA profile.

• The DNA profile is approximately 6.8 septillion (6.8E24) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

14.2 Suspected hair

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as single source.

  • Hp = Samantha Josephson contributed the DNA profile.

  • Hd = An unidentified unrelated individual contributed the DNA profile.

• The DNA profile is approximately 6.8 septillion (6.8E24) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

14.3 Suspected hair

RESULTS:

• No hair suitable for STR PCR DNA analysis.

15 Suspected hair from crotch region of pants on Samantha Josephson

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as single source.

  • Hp = Samantha Josephson contributed the DNA profile.

  • Hd = An unidentified unrelated individual contributed the DNA profile.

• The DNA profile is approximately 1.7 septillion (1.7E24) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

16 Fingernail scrapings from Samantha Josephson

16.1 Right hand fingernail scrapings from Samantha Josephson

RESULTS:

• The DNA profile developed is attributable to Samantha Josephson.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• The partial Y-STR profile developed is insufficient for interpretation.

16.1.1 Possible hair

RESULTS:

• No hair suitable for STR PCR DNA analysis.

16.2 Left hand fingernail scrapings from Samantha Josephson

RESULTS:

• The DNA profile developed is attributable to Samantha Josephson.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• No Y-STR profile was developed.

17 Fingernail clippings from right hand of Samantha Josephson

RESULTS:

• The DNA profile developed is attributable to Samantha Josephson.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• A Y-STR profile was developed.

• Due to the inability to determine a number of contributors, no further interpretation will be offered regarding the Y-STR profile.

18 Fingernail clippings from left hand of Samantha Josephson

RESULTS:

• A DNA profile suitable for comparison was developed.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

- **Proposition Set:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Samantha Josephson is contributing to the mixture.

  - Hp = Samantha Josephson, the person of interest, and an unidentified unrelated individual contributed to the mixture.

  - Hd = Samantha Josephson and two unidentified unrelated individuals contributed to the mixture.

- Under the listed propositions, the following individuals are excluded as contributors to this mixture: Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming.

- The Y-STR profile developed is a mixture of at least two male individuals.

- The Y-STR profile of the major contributor to this mixture is from unidentified male individual A.

- Due to the limited information developed, no further interpretation will be offered regarding the minor contributor(s).

19 **Swabs from left ankle of Samantha Josephson**

RESULTS:

- A DNA profile suitable for comparison was developed.

- DNA attributable to Samantha Josephson is present in this profile.

- DNA not attributable to Samantha Josephson is also present in this profile.

- Due to the limited information obtained regarding the foreign contributor(s), no further comparisons will be offered.

- The partial Y-STR profile developed is a mixture of at least three male individuals.

- Due to the inability to calculate a statistic, no further interpretation will be offered.

20 **Swab from right ankle of Samantha Josephson**

RESULTS:

• The DNA profile developed is attributable to Samantha Josephson.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• A partial Y-STR profile was developed.

• Due to the inability to determine a number of contributors, no further interpretation will be offered regarding the Y-STR profile.

22.1 ***Swabs from stain below address window on Item 22 (Envelope with handwritten list on back)***

RESULTS:

• *A DNA profile suitable for comparison was developed.*

• *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*

• ***Proposition Set I:***

  • *The DNA profile was interpreted as a mixture originating from two individuals.*

  • *Hp = Samantha Josephson and an unidentified unrelated individual contributed to the mixture.*

  • *Hd = Two unidentified unrelated individuals contributed to the mixture.*

• *The DNA profile is approximately 3.7 septillion (3.7E24) times more likely if Samantha Josephson and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.*

• ***Proposition Set II:***

  • *The DNA profile was interpreted as a mixture originating from two individuals.*

  • *Hp = The person of interest and an unidentified unrelated individual contributed to the mixture.*

  • *Hd = Two unidentified unrelated individuals contributed to the mixture.*

• *Under the listed propositions, the following individuals are excluded as contributors to the mixture: Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming.*

22.2 ***Swabs from outer edges of Item 22 (Envelope with handwritten list on back)***

RESULTS:

• A DNA profile suitable for comparison was developed.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

*• **Proposition Set I:***

• The DNA profile was interpreted as a mixture originating from three individuals.

• Hp = Samantha Josephson and two unidentified unrelated individuals contributed to the mixture.

• Hd = Three unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 42 billion (4.2E10) times more likely if Samantha Josephson and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

*• **Proposition Set II:***

• The DNA profile was interpreted as a mixture originating from three individuals.

• Hp = Xavier McFadden and two unidentified unrelated individuals contributed to the mixture.

• Hd = Three unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 15 (1/6.6E-2) times more likely if three unidentified unrelated individuals contributed to the mixture than if Xavier McFadden and two unidentified unrelated individuals contributed to the mixture.

*• **Proposition Set III:***

• The DNA profile was interpreted as a mixture originating from three individuals.

• Hp = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

• Hd = Three unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 4 (1/2.3E-1) times more likely if three unidentified unrelated individuals contributed to the mixture than if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

- ***Proposition Set IV:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Marcus Dewayne Williams and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 21 (1/4.6E-2) times more likely if three unidentified unrelated individuals contributed to the mixture than if Marcus Dewayne Williams and two unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set V:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Maria Howard and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 20 (1/4.9E-2) times more likely if three unidentified unrelated individuals contributed to the mixture than if Maria Howard and two unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set VI:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = The person of interest and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *Under the listed propositions, the following individuals are excluded as contributors to the mixture: Oshamar Williams and Derod Fleming.*

23 Suspected hair from hair clippers from underneath front passenger seat of Chevrolet Impala

23.1 Suspected hair

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as single source.

  • Hp = Samantha Josephson contributed the DNA profile.

  • Hd = An unidentified unrelated individual contributed the DNA profile.

• The DNA profile is approximately 1.5 sextillion (1.5E21) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

23.2 Suspected hair

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as single source.

  • Hp = Samantha Josephson contributed the DNA profile.

  • Hd = An unidentified unrelated individual contributed the DNA profile.

• The DNA profile is approximately 7.5 quadrillion (7.5E15) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

24 **Suspected hair from rear driver side floorboard from Chevrolet Impala**

RESULTS:

• No DNA profile was developed.

25 **Suspected hair from rear passenger side seat behind child seat of Chevrolet Impala**

RESULTS:

• The DNA profile developed is insufficient for interpretation.

26 **Suspected hair from black jumper cable from rear driver side floorboard close to underneath driver seat of Chevrolet Impala**

RESULTS:

• No DNA profile was developed.

38.1 **Swabs from cuff area and in between fingers of Item 38 (blue plastic gloves from front passenger door panel of Chevrolet Impala)**

RESULTS:

• The DNA profile developed is a mixture of at least five individuals.

• Due to the complexity of this mixture, no further interpretation will be offered.

39.1 **Swabs from cuff area and in between fingers of Item 39 (blue glove from around clear spray bottle in rear driver floorboard of Chevrolet Impala)**

RESULTS:

• The DNA profile developed is a mixture of at least five individuals.

• Due to the complexity of this mixture, no further interpretation will be offered.

45.1 ***Swabs from right sleeve, near cuff of black jacket "ROBERT COMSTOCK" size "XL" (from rear passenger seat of Chevrolet Impala)***

RESULTS:

• *A DNA profile suitable for comparison was developed.*

• *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*

- ***Proposition Set I:***

  - *The DNA profile was interpreted as a mixture originating from two individuals.*

  - *Hp = Samantha Josephson and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Two unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 3.7 septillion (3.7E24) times more likely if Samantha Josephson and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set II:***

  - *The DNA profile was interpreted as a mixture originating from two individuals.*

  - *Hp = The person of interest and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Two unidentified unrelated individuals contributed to the mixture.*

- *Under the listed propositions, the following individuals are excluded as contributors to the mixture: Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming.*

45.2 ***Swabs from front upper right and lower left areas of black jacket "ROBERT COMSTOCK" size "XL" (from rear passenger seat of Chevrolet Impala)***

RESULTS:

- *A DNA profile suitable for comparison was developed.*

- *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*

- ***Proposition Set I:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Samantha Josephson and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 2.7 septillion (2.7E24) times more likely if Samantha Josephson and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set II:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = The person of interest and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *Under the listed propositions, the following individuals are excluded as contributors to the mixture: Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming.*

45.3 ***Swab from scraping interior neck area of black jacket "ROBERT COMSTOCK" size "XL" (from rear passenger seat of Chevrolet Impala)***

RESULTS:

- *The DNA profile developed is a mixture of at least five individuals.*

- *Due to the complexity of this mixture, no further interpretation will be offered.*

47.1 ***Swabs from foot bed and under strap of black and red left side flip flop (from trunk of Chevrolet Impala)***

RESULTS:

- *A DNA profile suitable for comparison was developed.*

- *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*

- ***Proposition Set 1:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Samantha Josephson and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 2.9 septillion (2.9E24) times more likely if Samantha Josephson and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set II:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 35,000 (3.5E4) times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set III:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 1.4 nonillion (1.4E30) times more likely if Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set IV:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Maria Howard and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 3 (1/3.2E-1) times more likely if three unidentified unrelated individuals contributed to the mixture than if Maria Howard and two unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set V:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = The person of interest and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

• *Under the listed propositions, the following individuals are excluded as contributors to the mixture: Xavier McFadden, Marcus Dewayne Williams, Oshamar Williams, and Derod Fleming.*

50.1 ***Cutting from heel area of pair of black socks (from Nathaniel Rowland)***

RESULTS:

• *A DNA profile suitable for comparison was developed.*

• *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*

• ***Proposition Set I:***

  • *The DNA profile was interpreted as a mixture originating from two individuals.*

  • *Hp = Samantha Josephson and an unidentified unrelated individual contributed to the mixture.*

  • *Hd = Two unidentified unrelated individuals contributed to the mixture.*

• *The DNA profile is approximately 4 septillion (4.0E24) times more likely if Samantha Josephson and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.*

• ***Proposition Set II:***

  • *The DNA profile was interpreted as a mixture originating from two individuals.*

  • *Hp = The person of interest and an unidentified unrelated individual contributed to the mixture.*

  • *Hd = Two unidentified unrelated individuals contributed to the mixture.*

• *Under the listed propositions, the following individuals are excluded as contributors to the mixture: Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming.*

51.1 ***Cutting from right shoulder area of gray "PUMA" hoodie (from Nathaniel Rowland)***

RESULTS:

• *A DNA profile suitable for comparison was developed.*

• *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*

- ***Proposition Set I:***

  - *The DNA profile was interpreted as a mixture originating from two individuals.*

  - *Hp = Nathaniel Rowland and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Two unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 19 octillion (1.9E28) times more likely if Nathaniel Rowland and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set II:***

  - *The DNA profile was interpreted as a mixture originating from two individuals.*

  - *Hp = The person of interest and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Two unidentified unrelated individuals contributed to the mixture.*

- *Under the listed propositions, the following individuals are excluded as contributors to the mixture: Xavier McFadden, Samantha Josephson, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming.*

54.1.1 ***Cutting from bandana (from Nathaniel Rowland)***

RESULTS:

- *A DNA profile suitable for comparison was developed.*

- *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*

- ***Proposition Set I:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Samantha Josephson and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 2.6 septillion (2.6E24) times more likely if Samantha Josephson and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set II:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 14 sextillion (1.4E22) times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set III:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 10 quindecillion (1.0E49) times more likely if Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set IV:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = The person of interest and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *Under the listed propositions, the following individuals are excluded as contributors to the mixture: Xavier McFadden, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming.*

62 ***Swabs from steering wheel of Chevrolet Impala***

RESULTS:

- *A DNA profile suitable for comparison was developed.*

- *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*

- ***Proposition Set I:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 970 billion (9.7E11) times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set II:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Maria Howard and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 41 septillion (4.1E25) times more likely if Maria Howard and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set III:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 91 undecillion (9.1E37) times more likely if Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set IV:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = The person of interest and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

• Under the listed propositions, the following individuals are excluded as contributors to the mixture: Samantha Josephson, Xavier McFadden, Marcus Dewayne Williams, Oshamar Williams, and Derod Fleming.

63 ***Swabs from gear shift of Chevrolet Impala***

RESULTS:

• A DNA profile suitable for comparison was developed.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

*• **Proposition Set I:***

• The DNA profile was interpreted as a mixture originating from four individuals.

• Hp = Samantha Josephson and three unidentified unrelated individuals contributed to the mixture.

• Hd = Four unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 390 billion (3.9E11) times more likely if Samantha Josephson and three unidentified unrelated individuals contributed to the mixture than if four unidentified unrelated individuals contributed to the mixture.

*• **Proposition Set II:***

• The DNA profile was interpreted as a mixture originating from four individuals.

• Hp = Nathaniel Rowland and three unidentified unrelated individuals contributed to the mixture.

• Hd = Four unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 150 billion (1.5E11) times more likely if Nathaniel Rowland and three unidentified unrelated individuals contributed to the mixture than if four unidentified unrelated individuals contributed to the mixture.

*• **Proposition Set III:***

• The DNA profile was interpreted as a mixture originating from four individuals.

• Hp = Maria Howard and three unidentified unrelated individuals contributed to the mixture.

• Hd = Four unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 27 (2.7E1) times more likely if Maria Howard and three unidentified unrelated individuals contributed to the mixture than if four unidentified unrelated individuals contributed to the mixture.

*• **Proposition Set IV:***

• The DNA profile was interpreted as a mixture originating from four individuals.

• Hp = Samantha Josephson, Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture.

• Hd = Four unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 14 decillion (1.4E34) times more likely if Samantha Josephson, Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture than if four unidentified unrelated individuals contributed to the mixture.

• The LR for Proposition Set IV was calculated to confirm that the mixture could be explained by the contribution of DNA from all individuals listed under Hp. Due to the disparity in the individual LRs between the contributors for this item, it is recommended to put more weight on the results of Proposition Set III rather than the results of Proposition Set IV when considering Maria Howard as a possible contributor to the mixture.

*• **Proposition Set V:***

• The DNA profile was interpreted as a mixture originating from four individuals.

• Hp = Xavier McFadden and three unidentified unrelated individuals contributed to the mixture.

• Hd = Four unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 4 (1/2.2E-1) times more likely if four unidentified unrelated individuals contributed to the mixture than if Xavier McFadden and three unidentified unrelated individuals contributed to the mixture.

*• **Proposition Set VI:***

• The DNA profile was interpreted as a mixture originating from four individuals.

• Hp = The person of interest and three unidentified unrelated individuals contributed to the mixture.

• Hd = Four unidentified unrelated individuals contributed to the mixture.

• Under the listed propositions, the following individuals are excluded as contributors to the mixture: Marcus Dewayne Williams, Oshamar Williams, and Derod Fleming.

64 *Swabs from exterior door handle of the rear passenger side door of Chevrolet Impala*

RESULTS:

- *A DNA profile suitable for comparison was developed.*
- *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*
- ***Proposition Set I:***
    - *The DNA profile was interpreted as a mixture originating from three individuals.*
    - *Hp = Samantha Josephson and two unidentified unrelated individuals contributed to the mixture.*
    - *Hd = Three unidentified unrelated individuals contributed to the mixture.*
- *The DNA profile is approximately 140 quadrillion (1.4E17) times more likely if Samantha Josephson and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*
- ***Proposition Set II:***
    - *The DNA profile was interpreted as a mixture originating from three individuals.*
    - *Hp = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.*
    - *Hd = Three unidentified unrelated individuals contributed to the mixture.*
- *The DNA profile is approximately 9,100 (9.1E3) times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*
- ***Proposition Set III:***
    - *The DNA profile was interpreted as a mixture originating from three individuals.*
    - *Hp = Maria Howard and two unidentified unrelated individuals contributed to the mixture.*
    - *Hd = Three unidentified unrelated individuals contributed to the mixture.*
- *The DNA profile is approximately 2 (2.4E0) times more likely if Maria Howard and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set IV:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Samantha Josephson, Nathaniel Rowland, and Maria Howard contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile obtained cannot be explained by a combination of DNA from Samantha Josephson, Nathaniel Rowland, and Maria Howard under the listed propositions.*

- ***Proposition Set V:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 36 septillion (3.6E25) times more likely if Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- ***Proposition Set VI:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Samantha Josephson, Maria Howard, and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 680 quadrillion (6.8E17) times more likely if Samantha Josephson, Maria Howard, and an unidentified unrelated individual contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- *The LR for Proposition Set VI was calculated to confirm that the mixture could be explained by the contribution of DNA from all individuals listed under Hp. Due to the disparity in the individual LRs between the contributors for this item, it is recommended to put more weight on the results of Proposition Set III rather than the results of Proposition Set VI when considering Maria Howard as a possible contributor to the mixture.*

- ***Proposition Set VII:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *The DNA profile is approximately 5,700 (5.7E3) times more likely if Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.*

- *The LR for Proposition Set VII was calculated to confirm that the mixture could be explained by the contribution of DNA from all individuals listed under Hp. Due to the disparity in the individual LRs between the contributors for this item, it is recommended to put more weight on the results of Proposition Set III rather than the results of Proposition Set VII when considering Maria Howard as a possible contributor to the mixture.*

- ***Proposition Set VIII:***

  - *The DNA profile was interpreted as a mixture originating from three individuals.*

  - *Hp = The person of interest and two unidentified unrelated individuals contributed to the mixture.*

  - *Hd = Three unidentified unrelated individuals contributed to the mixture.*

- *Under the listed propositions, the following individuals are excluded as contributors to the mixture: Xavier McFadden, Marcus Dewayne Williams, Oshamar Williams, and Derod Fleming.*

84.1 ***Swabs from rear of both shoes (avoiding staining) of pair of "BRASH" shoes size "9" (from Samantha Josephson)***

RESULTS:

- *A DNA profile suitable for comparison was developed.*

- *Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.*

- *Likelihood Ratios (LR) for this profile were calculated using STRmix™.*

- ***Proposition Set:***
  - *The DNA profile was interpreted as single source.*
  - *Hp = Samantha Josephson contributed the DNA profile.*
  - *Hd = An unidentified unrelated individual contributed the DNA profile.*

- *The DNA profile is approximately 7.6 septillion (7.6E24) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.*

- *No Y-STR profile was developed.*

103 Suspected hair from shirt "TOBI" from Samantha Josephson

103.1 Suspected hair

RESULTS:

- No DNA profile was developed.

103.2 Suspected hair

RESULTS:

- No DNA profile was developed.

103.3 Suspected hair

RESULTS:

- A DNA profile was developed.
- Due to the limited information obtained, no further interpretation will be offered.

103.4 Suspected hair

RESULTS:

- No STR DNA profile was developed.

104.1 Swabs from serrated blade of camo colored multi-tool from white plastic "FAMILY DOLLAR" bag, bag "#2"
RESULTS:

- A DNA profile suitable for comparison was developed.
- Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set:**
    - The DNA profile was interpreted as single source.
    - Hp = Samantha Josephson contributed the DNA profile.
    - Hd = An unidentified unrelated individual contributed the DNA profile.
- The DNA profile is approximately 6.9 septillion (6.9E24) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

104.2 Swabs from inner edges of handles of camo colored multi-tool from white plastic "FAMILY DOLLAR" bag, bag "#2"

RESULTS:

- A DNA profile suitable for comparison was developed.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set I:**
    - The DNA profile was interpreted as a mixture originating from three individuals.
    - Hp = Samantha Josephson and two unidentified unrelated individuals contributed to the mixture.
    - Hd = Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 2.6 septillion (2.6E24) times more likely if Samantha Josephson and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

- **Proposition Set II:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Hp = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

  - Hd = Three unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 49 (4.9E1) times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

- **Proposition Set III:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Hp = Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture.

  - Hd = Three unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 2.7 octillion (2.7E27) times more likely if Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

- The LR for Proposition Set III was calculated to confirm that the mixture could be explained by the contribution of DNA from all individuals listed under Hp. Due to the disparity in the individual LRs between the contributors for this item, it is recommended to put more weight on the results of Proposition Set II rather than the results of Proposition Set III when considering Nathaniel Rowland as a possible contributor to the mixture.

- **Proposition Set IV:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Hp = Xavier McFadden and two unidentified unrelated individuals contributed to the mixture.

  - Hd = Three unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 28 (1/3.5E-2) times more likely if three unidentified unrelated individuals contributed to the mixture than if Xavier McFadden and two unidentified unrelated individuals contributed to the mixture.

- **Proposition Set V:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Hp = The person of interest and two unidentified unrelated individuals contributed to the mixture.

  - Hd = Three unidentified unrelated individuals contributed to the mixture.

- Under the listed propositions, the following individuals are excluded as contributors to this mixture: Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming.

- The Y-STR profile developed is a mixture of at least two male individuals.

- Xavier McFadden, Marcus Dewayne Williams, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

- YFiler™ Plus statistics for this profile were calculated using the US Y-STR database.

- The partial Y-STR profile of the major contributor to this mixture is from unidentified male individual B.

- The partial Y-STR profile of the minor contributor to this mixture matches the Y-STR profile of Nathaniel Rowland.

- The probability of randomly selecting an unrelated male individual having a Y-STR profile matching the minor contributor to this mixture is approximately 1 in 59 (5.9E1).

- Paternal male relatives of Nathaniel Rowland may not be excluded as the minor contributor to this mixture.

104.3.1 Hair from camo colored multi-tool from white plastic "FAMILY DOLLAR" bag, bag "#2"

RESULTS:

- A DNA profile suitable for comparison was developed.

- Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

- **Proposition Set:**

    - The DNA profile was interpreted as single source.

    - Hp = Samantha Josephson contributed the DNA profile.

    - Hd = An unidentified unrelated individual contributed the DNA profile.

- The DNA profile is approximately 6.8 septillion (6.8E24) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

106.1 **Swab from finger of black right hand glove - from white basket from closet left of bed in Maria Howard's bedroom ([redacted] Mountainbrook Dr. Unit C)**

RESULTS:

- A DNA profile suitable for comparison was developed.

- Xavier McFadden, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

- **Proposition Set I:**

    - The DNA profile was interpreted as a mixture originating from two individuals.

    - Hp = Samantha Josephson and an unidentified unrelated individual contributed to the mixture.

    - Hd = Two unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 4.0 septillion (4.0E24) times more likely if Samantha Josephson and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

- **Proposition Set II:**

    - The DNA profile was interpreted as a mixture originating from two individuals.

    - Hp = Nathaniel Rowland and an unidentified unrelated individual contributed to the mixture.

    - Hd = Two unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 5 (1/2.0E-1) times more likely if two unidentified unrelated individuals contributed to the mixture than if Nathaniel Rowland and an unidentified unrelated individual contributed to the mixture.

106.2.1 Hair from black right hand glove - from white basket from closet left of bed in Maria Howard's bedroom ([redacted] Mountainbrook Dr. Unit C)

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set:**

  • The DNA profile was interpreted as single source.

  • Hp = Samantha Josephson contributed the DNA profile.

  • Hd = An unidentified unrelated individual contributed the DNA profile.

• The DNA profile is approximately 6.7 septillion (6.7E24) times more likely if Samantha Josephson contributed the profile than if an unidentified unrelated individual contributed the profile.

107.1 Swab from cuff of black left hand glove - from white plastic "FAMILY DOLLAR" bag "#2"

RESULTS:

• A DNA profile suitable for comparison was developed.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set I:**

  • The DNA profile was interpreted as a mixture originating from four individuals.

  • Hp = Samantha Josephson and three unidentified unrelated individuals contributed to the mixture.

  • Hd = Four unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 2.5 septillion (2.5E24) times more likely if Samantha Josephson and three unidentified unrelated individuals contributed to the mixture than if four unidentified unrelated individuals contributed to the mixture.

• **Proposition Set II:**

  • The DNA profile was interpreted as a mixture originating from four individuals.

  • Hp = Nathaniel Rowland and three unidentified unrelated individuals contributed to the mixture.

  • Hd = Four unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 460,000 (4.6E5) times more likely if Nathaniel Rowland and three unidentified unrelated individuals contributed to the mixture than if four unidentified unrelated individuals contributed to the mixture.

• **Proposition Set III:**

  • The DNA profile was interpreted as a mixture originating from four individuals.

  • Hp = Maria Howard and three unidentified unrelated individuals contributed to the mixture.

  • Hd = Four unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 4 (4.2E0) times more likely if Maria Howard and three unidentified unrelated individuals contributed to the mixture than if four unidentified unrelated individuals contributed to the mixture.

• **Proposition Set IV:**

  • The DNA profile was interpreted as a mixture originating from four individuals.

  • Hp = Samantha Josephson, Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture.

  • Hd = Four unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 1.4 decillion (1.4E33) times more likely if Samantha Josephson, Nathaniel Rowland, Maria Howard, and an unidentified unrelated individual contributed to the mixture than if four unidentified unrelated individuals contributed to the mixture.

• The LR for Proposition Set IV was calculated to confirm that the mixture could be explained by the contribution of DNA from all individuals listed under Hp. Due to the disparity in the individual LRs between the contributors for this item, it is recommended to put more weight on the results of Proposition Set III rather than the results of Proposition Set IV when considering Maria Howard as a possible contributor to the mixture.

• **Proposition Set V:**

• The DNA profile was interpreted as a mixture originating from four individuals.

• Hp = The person of interest and three unidentified unrelated individuals contributed to the mixture.

• Hd = Four unidentified unrelated individuals contributed to the mixture.

• Under the listed propositions, the following individuals are excluded as contributors to this mixture: Xavier McFadden, Marcus Dewayne Williams, Oshamar Williams, and Derod Fleming.

108.1 **Swabs from bottom crease on exterior of bag from Item 108 (white plastic "FAMILY DOLLAR" bag, bag "#1")**

RESULTS:

• A DNA profile suitable for comparison was developed.

• Xavier McFadden, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

• Likelihood Ratios (LR) for this profile were calculated using STRmix™.

• **Proposition Set I:**

• The DNA profile was interpreted as a mixture originating from two individuals.

• Hp = Samantha Josephson and an unidentified unrelated individual contributed to the mixture.

• Hd = Two unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 3.9 septillion (3.9E24) times more likely if Samantha Josephson and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

- **Proposition Set II:**

  - The DNA profile was interpreted as a mixture originating from two individuals.

  - Hp = Nathaniel Rowland and an unidentified unrelated individual contributed to the mixture.

  - Hd = Two unidentified unrelated individuals contributed to the mixture.

- Nathaniel Rowland is excluded as a contributor to the mixture under the listed propositions.

108.2 Swabs from handles of bag from Item 108 ((white plastic "FAMILY DOLLAR" bag, bag "#1")

RESULTS:

- A DNA profile suitable for comparison was developed.

- Xavier McFadden, Nathaniel Rowland, Marcus Dewayne Williams, Maria Howard, Oshamar Williams, and Derod Fleming are excluded as possible contributors.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

- **Proposition Set:**

  - The DNA profile was interpreted as a mixture originating from two individuals.

  - Hp = Samantha Josephson and an unidentified unrelated individual contributed to the mixture.

  - Hd = Two unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 3.5 septillion (3.5E24) times more likely if Samantha Josephson and an unidentified unrelated individual contributed to the mixture than if two unidentified unrelated individuals contributed to the mixture.

108.3.1 Cutting from five wads of possible paper towels from miscellaneous contents removed from bag from Item 108 (white plastic "FAMILY DOLLAR" bag, bag "#1")

RESULTS:

- A DNA profile suitable for comparison was developed.

- Likelihood Ratios (LR) for this profile were calculated using STRmix™.

- **Proposition Set I:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Hp = Samantha Josephson and two unidentified unrelated individuals contributed to the mixture.

  - Hd = Three unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 56 million (5.6E7) times more likely if Samantha Josephson and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.

- **Proposition Set II:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Hp = Xavier McFadden and two unidentified unrelated individuals contributed to the mixture.

  - Hd = Three unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 32 (1/3.1E-2) times more likely if three unidentified unrelated individuals contributed to the mixture than if Xavier McFadden and two unidentified unrelated individuals contributed to the mixture.

- **Proposition Set III:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Hp = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

  - Hd = Three unidentified unrelated individuals contributed to the mixture.

- The DNA profile is approximately 22 (1/4.4E-2) times more likely if three unidentified unrelated individuals contributed to the mixture than if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.

- **Proposition Set IV:**

  - The DNA profile was interpreted as a mixture originating from three individuals.

  - Hp = Marcus Dewayne Williams and two unidentified unrelated individuals contributed to the mixture.

  - Hd = Three unidentified unrelated individuals contributed to the mixture.

• An uninformative statistical result was obtained. No conclusion can be made regarding Marcus Dewayne Williams as a possible contributor to the profile under the listed propositions.

• **Proposition Set V:**

  • The DNA profile was interpreted as a mixture originating from three individuals.

  • Hp = Maria Howard and two unidentified unrelated individuals contributed to the mixture.

  • Hd = Three unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 10 (1/9.5E-2) times more likely if three unidentified unrelated individuals contributed to the mixture than if Maria Howard and two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set VI:**

  • The DNA profile was interpreted as a mixture originating from three individuals.

  • Hp = Oshamar Williams and two unidentified unrelated individuals contributed to the mixture.

  • Hd = Three unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 10 (1/9.5E-2) times more likely if three unidentified unrelated individuals contributed to the mixture than if Oshamar Williams and two unidentified unrelated individuals contributed to the mixture.

• **Proposition Set VII:**

  • The DNA profile was interpreted as a mixture originating from three individuals.

  • Hp = Derod Fleming and two unidentified unrelated individuals contributed to the mixture.

  • Hd = Three unidentified unrelated individuals contributed to the mixture.

• The DNA profile is approximately 24 (1/4.1E-2) times more likely if three unidentified unrelated individuals contributed to the mixture than if Derod Fleming and two unidentified unrelated individuals contributed to the mixture.

108.3.2 Cutting from one wad of possible paper towels from miscellaneous contents removed from bag from Item 108 (white plastic "FAMILY DOLLAR" bag, bag "#1")

RESULTS:

- A DNA profile suitable for comparison was developed.
- Likelihood Ratios (LR) for this profile were calculated using STRmix™.
- **Proposition Set I:**
    - The DNA profile was interpreted as a mixture originating from three individuals.
    - Hp = Samantha Josephson and two unidentified unrelated individuals contributed to the mixture.
    - Hd = Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 2.7 septillion (2.7E24) times more likely if Samantha Josephson and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.
- **Proposition Set II:**
    - The DNA profile was interpreted as a mixture originating from three individuals.
    - Hp = Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture.
    - Hd = Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 3 (3.2E0) times more likely if Nathaniel Rowland and two unidentified unrelated individuals contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.
- **Proposition Set III:**
    - The DNA profile was interpreted as a mixture originating from three individuals.
    - Hp = Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture.
    - Hd = Three unidentified unrelated individuals contributed to the mixture.
- The DNA profile is approximately 130 septillion (1.3E26) times more likely if Samantha Josephson, Nathaniel Rowland, and an unidentified unrelated individual contributed to the mixture than if three unidentified unrelated individuals contributed to the mixture.