

than a very hard polished surface?

A Generally, yes.

Q And among surfaces that produce generally the better quality fingerprints would be included glass; would it not?

A Under ideal conditions, it would be if it weren't wet or damp or something, it would be, yes.

Q There is evidence and perhaps you testified to it, I didn't make notes to the effect, that there is in evidence, I believe, some beer bottles, perhaps broken, and a comb that was collected at the crime scene?

A Yes.

Q Did you conduct any fingerprinting examination of those items?

A No, sir.

Q Do you know if anybody else did?

A Not to my knowledge.

MR. DeBOLT: I have no further questions, your Honor.

MR. KING: No more questions.

THE COURT: Officer, you may step down. Thank you.

THE WITNESS: Okay.

THE COURT: You want to call your next witness?

TECHNICAL CORPORAL SABRINA GAYLE MIDKIFF, was thereupon called as a witness on behalf of the State, and having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KING:

Q State your name, please.

A Sabrina Gayle Midkiff.

Q Where are you employed, Gayle?

A I am employed with the West Virginia Department of Public Safety in South Charleston.

Q Is that also known as the West Virginia State Police?

A Yes, sir, it is.

Q In what capacity are you employed with the State Police?

A I hold the rank of a Technical Corporal and in that capacity I serve as a forensic biologist.

Q And how long have you been a forensic biologist with the State Police?

A Next month will be six years.

Q Tell the jury just a little bit about what your responsibilities and duties are as a forensic biologist?

A I receive and examine evidence for the presence of blood and other body fluids, such as saliva or semen. I also do hair comparison examinations.

Q Have you done that, the entire about six years that you have been with the State Police?

A With the exception of the six months in the Academy,

it has been, yes, sir.

Q Is that the basic training program that all members of the Department of Public Safety must undergo?

A Yes, sir.

Q Do you have a college degree?

A Yes, sir, I do.

Q What was that in?

A In biological sciences from Marshall University.

Q Did you do any postgraduate work?

A I am currently doing postgraduate work, yes, sir.

Q And in what field?

A Also in biological sciences.

Q And tell the jury how far you have progressed in that regard?

A I have completed several biological classes. I plan on taking an organic lab in the fall. I have completed probably one-fourth of my requirements.

Q Have you attended any seminars or other meetings, with respect to examination of and identification of bodily or body fluids such as blood and the kind of things that you have described?

A Yes, sir, I have most recently last year. We spent a week in Connecticut, which was devoted to serology. Also, I am an associate member with the Southern Association of

Forensic Scientists.

Q Have you testified in this Court as -- by that, I mean the Circuit Court of Kanawha County, as well as other Circuit Courts in the State of West Virginia?

A Yes, sir, I have.

Q Would that have been with regard to your determination or identification of unknown substances?

A Yes, sir.

Q About how many times?

A Approximately in all Circuit Courts, approximately about 50 times.

Q What I'd like to do is direct your attention back to the month of December and specifically the 29th of December of 1982 and ask you on that date whether you received any particular items of evidence from a member of the Charleston Police Department by the name of Eddie Spradling?

A Yes, sir, I did.

Q Did you receive those items from him personally?

A Yes, sir, I did.

Q Do you recall what it was you received?

A I received a pair of panties, a pair of nylon running shorts, a pair of running shoes, a sweatshirt, a pair of socks, two vaginal swabs, two vaginal slides, one oral swab, one oral slide, known blood specimen of [REDACTED], known

saliva specimen of [REDACTED] known pubic hair specimen of [REDACTED], pubic hair combings and a comb.

Q How were these items contained or delivered to you? In what form -- how were they packaged, if you remember?

A Yeah, all the items were in one large paper bag. Then each item of clothing was in a separate paper bag. The comb was in a separate bag. All the evidence that came from the hospital were in separate sealed white envelopes.

Q Did you receive a case submission report with these items, also?

A Yes, sir, I did.

Q Was there a request to perform any analysis or test with regard to the items that Mr. Spradling turned over to you?

A Yes, sir, seminal determination and hair comparison.

Q I want to show you what's been marked for identification as State's Exhibit 7, 7A through and including 7G and ask you whether or not you recognize and can identify those items, please?

A Yes, sir, I recognize them. They all have my case number and initials on them.

Q Did you do anything with respect to those items?

A Yes, sir.

Q Did you perform any tests or examinations upon any of those?

A Yes, sir, on the -- the slides were examined for the presence of sperm. So, the swabs were examined for the presence of seminal fluid. The blood was grouped for our blood groupings. The saliva specimen was examined for the blood grouping and the pubic hair combings and known hair were mounted for examination.

Q All right. Let's start with State's Exhibit No. 7. That's the blood sample; is it not?

A Yes, sir.

Q What were the results of any tests or examinations you did with respect to that?

A I did the blood grouping. Let me refer to that. She -- the known blood specimen of Cheryl Martin-Shroeder said that she was a secretor of the known blood type of A, with an esterase D 1, PGM 1+1+, glyoxalse 2, 2, 1 and EAP B, A and AK 1 and ADA 1.

Q That was her blood group?

A Yes, sir.

Q Did you do anything else, any other -- perform any other kind of test or examinations with respect to her known blood sample?

A No, sir.

Q You just generally did a type?

A Yes, sir.

Q Now, you indicated I believe in your first description of her blood type that she was a secretor?

A Yes, sir.

Q What does that mean?

A That means in other secretions, other than blood, such as her saliva or in a vaginal secretion that she would secrete enough blood group antigens that we would detect her ABO typing in those secretions.

Q What about her perspiration?

A Possibly in that as well, yes.

Q Well, how would that affect something, Gayle? I mean, if you say that through her perspiration, if someone hypothetically is running, all right, starts to perspire about their face, their legs and their arms and their body and they are a secretor, like you say, then they become damp and moist; is that correct?

A Yes, sir.

Q You mean this moisture, let's say that one has about their face or other parts of their body from perspiring, contains some kind of characteristics of their blood?

A It would contain a blood type antigen and that if there was enough of the substance, you should be able to get their blood grouping from that, the perspiration, yes, sir.

Q In other words, if someone was perspiring heavily, you could take a sample of their perspiration off their face and you could by doing tests on this tell what blood group?

A Yes, sir.

Q They were?

A ABO typing.

Q ABO typing?

A Yes, sir.

Q When you typed her known blood, other than the ABO typing, you listed a bunch of other things or other groupings; is that correct?

A Yes, sir.

Q Or characteristics?

A Yes, sir.

Q What are those based upon?

A They are enzymes that are found in the blood and they're -- all those are blood enzymes.

Q That's just a further breakdown of the blood into what is more -- you more precisely define or characterize the type of blood by those enzymes; is that right?

A Right, we term them as genetic markers and it breaks it down even further.

Q Can you determine these genetic markers from perspiration on a secretor's face, if you had an adequate

sample?

A We usually are not able to get results from it, because the salt in the perspiration affects and inhibits that enzyme and we are not able to get results when we test for that enzyme.

Q Now, these -- I believe you described them as A and B antigens?

A Yes, sir, ABO antigens, blood type antigens.

Q Are these the things that are characteristics or that are determinative of a person's ABO blood grouping?

A Yes, sir.

Q Are some people -- some of us what you would classify as secretors?

A The majority of the population are secretors. About 72% are classified as secretors.

Q So, if that's true 72% of the people in this room then would be secretors?

A Yes, sir.

Q What is the difference between a secretor and a nonsecretor?

A Well, the nonsecretor does not secrete enough of those antigens in their secretions that that can be picked up, such as if we had seminal fluid from a nonsecretor, we would not be able to identify that ABO typing from the seminal fluid, if

he is not a nonsecretor. If he is one, we should be able to pick up that ABO blood typing and determine that blood type from the seminal fluid.

Q Okay, Gayle, going to State's Exhibit 7A, what is that, please?

A The vaginal slide.

Q What kind of examination did you perform with respect to those slides, please?

A What we do is we dye them with a -- a dye and we examine them under the microscope for the presence of spermatozoa.

Q Did you do that in this case?

A Yes, sir.

Q What were your results?

A I identified no spermatozoa on the slide.

Q Now, these were the vaginal?

A Yes, sir.

Q Slides?

A Yes, sir.

Q Okay. Your results, would that be consistent or inconsistent with the -- well, strike that. Would you expect to find spermatozoa on those slides if there was no evidence or indication that ejaculation had taken place within the vagina of the victim?

A No, sir, I would not expect to find them.

Q What is State's Exhibit 7B?

A The oral slide.

Q Okay. What kind of examination did you do with respect to those?

A The same and that was performed as performed on the vaginal slide. They are dyed and examined under the microscope.

Q What were your results?

A Again, I identified no sperm from the oral slide.

Q Would you expect to find spermatozoa, if there was no indication or evidence of ejaculation within the mouth of the person from whom those slides were made?

A No, sir, I wouldn't. I rarely find spermatozoa from oral slides, anyway. The mouth automatically is washing out substances and it's very difficult even if there was an ejaculation.

Q What about the -- if a person would throw up, would that wash out or destroy or otherwise dispose of any presence of spermatozoa in the mouth?

A It should, yes, sir.

Q What is State's Exhibit 7, I believe the next one is C; isn't it?

A Yes, sir.

Q What is it, if you know?

A Those are the vaginal swabs.

Q Did you do any tests with respect to those?

A Yes, we do a presumptive test for acid phosphatase. Seminal fluid has a high level of acid phosphatase and that is our presumptive test for seminal fluid and I performed it on the swab. They were inconclusive. So, I performed a further test to which is an electrofluoretic method that identifies seminal acid phosphatase as separate from other acid phosphatase and it was negative for seminal acid phosphatase.

Q When you say negative for seminal acid phosphatase, could you break that down into layman's language and tell the jury exactly what are you saying? What did you not find?

A Did not find seminal fluid. The acid phosphatase is the indicator for seminal fluid and I was not able to identify any seminal fluid on the swabs.

Q Okay. That the result of that is consistent with your observation and examination of the vaginal slides; would it not be?

A Yes, sir, that would be correct.

Q What about State's Exhibit 7D, I believe it is?

A That is the known saliva sample. What we do with those, we run an absorption inhibition. We determine again

the ABO typing of the secretor status of the known of the person and again, she was an A, which was consistent with her blood type.

Q All right, and State's Exhibit 7 ---

THE COURT: I am sorry, what was that exhibit?

THE WITNESS: That was the known saliva specimen.

BY MR. KING:

Q State's Exhibit, I believe, it's 7E, is that the next one?

A Yes, sir, that was the oral swab.

Q Did you do the same thing with respect to those that you did with the vaginal swabs?

A Yes, sir.

Q What were your results?

A Again, my results were negative for the presence of seminal fluid.

Q And State's Exhibit 7, I believe, F?

A Yes, the known pubic hair specimen.

Q What did you do with respect to that?

A They were mounted on microscope slides. I was not able to perform a hair comparison examination, because there was insufficient quantity of known hairs for me to do any comparison with the unknown hairs.

Q And did you have any unknown hairs?

A Yes, sir, I had two in the pubic hair combings.

Q Now, State's Exhibit 7G.

A That would be the pubic hair combings and they were again mounted on microscope slides, but I was not able to do an examination, because again the insufficient quantity of the known pubic hairs.

Q Can you actually compare one hair with another hair, Gayle, with any kind of conclusiveness?

A There is no percentage to the conclusiveness, but, yes, you can indeed compare. What we can usually determine is body area, race, and then what we try to determine if we have a large, a sufficient amount of the known, is that range of variation and to decide if those unknown hairs fit into that range of variation and if they could indeed originate from one person or did not originate from one person.

Q Gayle, I want to hand you what's been marked for identification as State's Exhibit No. 3, State's Exhibit No. 2 and ask you whether or not you recognize those two exhibits?

A Yes, sir, they have my case number and initials on them.

Q With respect to State's Exhibit No. 2, if you could hold it up, so that the jury can see it and point out where you are talking about, where your initials are?

A Okay, well, first they are on the bag that they were contained in and they are a pair of panties, which also have my case number and initials.

Q Okay. Is that the pair of panties that you received from Officer Spradling of the Charleston Police Department on December 29th, 1982?

A Yes, sir, it is.

Q Did you perform any tests upon that particular item, after you received it?

A Yes, sir, I examined them under the fluorescent light for seminal stains, which glow under a fluorescent light. If I have a suspect stain, which I did, I further examine it again by again acid phosphatase, which is a color reaction method. My results were negative for the acid phosphatase. So, that would be a negative result for seminal fluid.

Q Would you expect to find any indication or evidence of seminal fluid or spermatozoa on a pair of panties which were or had been removed prior to any kind of intercourse and had not been put even back on by the female subject at all?

A No, sir, I would not expect to find seminal fluid.

Q Okay. Looking at State's Exhibit No. 3, Gayle, if you would, -- well, strike that. State's Exhibit No. 2, did you after you performed your tests on State's Exhibit No. 2, the pair of panties, did you ever turn it back over to

anybody else?

A Yes, sir, they were turned back to Officer Spradling on January 21st of '83.

Q All right. Now, if you would please, go to State's Exhibit No. 3 and it contains a number of items; does it not?

A Yes, sir, it does.

Q Okay. If you would, would you take all the items out of the bag, please? All right. I want you to look specifically now at what's been marked for identification as State's Exhibit No. 4 and ask you whether or not, what it is and if you recognize it?

A Yes, sir, it's a bra. It also has my case number and initials on it.

Q And if you would, State's Exhibit No. 5, please?

A Yes, sir, I identified it. These were the running pants.

Q And State's Exhibit No. 6?

A Yes, sir, I can identify they have my case number initials. This was the sweatshirt.

Q Okay. Gayle, State's Exhibit No. 3, State's Exhibit 4 and State's Exhibit No.5 were all just removed from a larger brown paper bag labeled State's Exhibit No. 3; is that correct?

A I believe so, yes, sir.

Q Okay. When did you receive State's Exhibit 4, 5 and

6?

A On December 29th, 1982.

Q And those were in the bigger bag; right?

A Yes, sir.

Q And did you do any tests with respect to State's Exhibit 3 -- strike that -- 4, 5 and 6?

A Yes, sir, I examined them under the fluorescent light for any suspect stains.

Q And what did you find, if anything?

A I did not find any suspect stains. I touched them by touch. Seminal stains often have a crusty feel to them and I did not find anything that resembles seminal stains.

Q Now, with respect to State's Exhibit 2, which is the panties, State's Exhibit No. 3, which I believe you identified as being a woman's bra, State's Exhibit No. 5, I believe you identified it as being a pair of running pants?

A Yes, sir.

Q And State's Exhibit No. 6, which appears to be a green sweatshirt?

A Yes, sir.

Q Did you give those?

A Yes, sir.

Q Items to anybody?

A Yes, sir, they were returned to Officer Spradling

on the 21st of January of 1983.

Q Did you also receive a pair of running shoes?

A Yes, sir, I did.

Q When did you receive those?

A I received them on the 29th of December, '82.

Q And did you do anything with respect to those?

A Yes, sir, they were examined under the fluorescent light. There was a suspect stain on one pair, one of the shoes. The electric fluoretic method was performed on them, because there was an inconclusive test for acid phosphatase. It was negative for seminal fluid.

Q What did you do with respect to the shoes after you concluded your tests?

A They were returned to Officer Spradling on the 7th of January, '83.

Q Gayle, looking at the bag labeled State's Exhibit No. 5, there appears to be something else in the bag. Could you tell us what that is, please?

A Yes, sir, it's a pair of socks.

Q Do you recall at what time you received those?

A I received those on the 29th of December, along with the other items.

Q Did you do any or perform the same kind of tests on those, as you did the other items?

A Yes, sir, they were viewed under the fluorescent light and there were no suspect stains.

Q What did you do with respect to the socks?

A They were returned on the 21st with the majority of the other items.

Q What effect, Gayle, would the deposit of seminal fluid, male, human male seminal fluid on the outside portion of a person's body, specifically around the mouth area or cheeks, all right --

A Okay.

Q -- and I want you to assume the person whose face or cheeks this deposit is made is a secretor, like you have identified here in your testing of [REDACTED] blood and that her cheeks and face area at the time that the deposit was made were damp, not only from just moisture let's say in the air, but also from perspiration?

MR. DeBOLT: Objection, your Honor, he is asking her to assume facts that are not in evidence.

THE COURT: Let me see you at the bench, just a moment.

WHEREUPON, counsel for the respective parties and the defendant approached the bench, out of the hearing of the jury, where the following transpired:

THE COURT: I am going to allow it and I don't know whether you want me to give the jury some instruction relative

to it and allow him to fill the blanks in. If he doesn't, I am going to instruct the jury to disregard.

MR. DeBOLT: I would request that the jury be so instructed now so that what's been done has some significance for them.

THE COURT: The only reason I asked that it's going to

MR. DeBOLT: He is not going to be able to get that in.

MR. KING: I am not.

MR. DeBOLT: She only ran 200 feet.

MR. KING: I know, down a hill, tried to run back up the hill, drug over rocks, fighting.

MR. DeBOLT: I'd rather the jury be instructed.

MR. KING: Whatever, I'd like to know what you are going to instruct them.

THE COURT: Tell them about an expert being permitted to answer a hypothetical question in order for that answer to have any probative value, all of the facts given in the hypothet have to be proved in the evidence and part of that is, absent the question of whether or not she was perspiring, if it's filled in, they may consider it. If not, they may not and I will instruct them at one point.

WHEREUPON, counsel for the respective parties and the defendant resumed their seats at counsel table, within the hearing of the jury, where the following transpired:

THE COURT: I want to make one brief observation at this point, ladies and gentlemen, if you have not run across this before, as you know experts can testify as to opinion, where most witnesses, lay witnesses can't. In addition, they are permitted to answer hypothetical questions, that is questions based upon facts of which they have no personal knowledge. Mr. King is presenting just such a hypothetical question to this witness now. In order for that, an answer to a hypothetical question to be relevant, if such may be considered by a jury, all of the facts which are set out in the hypothetical question must be in evidence.

Now, in this case some of the evidence that Mr. King is testifying or is asking about form the basis for his hypothetical question are not in the evidence at this point. I am going to allow him to ask the question and the witness to answer it, however, I want you to understand that until all of the facts which he is presenting to the expert witness are in evidence from some witness or another, you may not consider this as evidence in this case. Okay.

BY MR. KING:

Q I guess I will start over, Judge. Gayle, I want you to assume an individual who is a secretor, with the blood of the type that you have testified to the jury about, the blood of [REDACTED], her blood, you know, characteristics

and she is a secretor, all right. I want you to assume that the skin or face area of the individual with this blood and its characteristic being a secretor had deposited on it, male or human male seminal fluid, I want you to assume that prior to the deposit of this seminal fluid upon her face, that this person had perspired about her face and that perhaps, you know, was continuing to perspire, you know, at the time the deposit was made upon her face and that in other words that there was perspiration on the face when the deposit of human seminal fluid was put there, as well as continued to perspire after it was put upon the face, do you understand what I want you to assume?

A Okay, yes.

Q What I want to know is what effect, if any, this perspiration containing her A and B antigens, I believe, you described would have on that material or substance, that human seminal fluid that was put on her face, in terms of affecting the characteristics of the male human or the human male seminal fluid?

A Okay, if there were a sufficient quantity of seminal fluid on that facial area, with the mixture of her perspiration, if the seminal fluid was from a person who was a secretor, then we should be able to identify both blood groups from the person, from that mixture of secretions.

If they were the same blood group, you would not be able to determine which that came from. If the person that the seminal fluid came from was a nonsecretor, then we would only pick up the ABO type of the perspiration, as she was a secretor.

Q Why would you only pick up the secretor's blood types and not perhaps the blood type of the donor of the seminal fluid?

A If he was -- if the seminal fluid came from a nonsecretor, there would not be enough of those blood group antigens to be -- that you could pick up or identify that blood group, that ABO type, while the perspiration would have a sufficient amount of that, of those antigens.

Q How much perspiration or would you have an opinion on that? Would someone have to secrete in the area where this deposit of seminal fluid was made?

A I couldn't give you a set amount, but sometimes even handling a substance, if you are a secretor, just the perspiration from someone's hands can contaminate enough to a point where you would pick up that perspiration from the worker's hand and that's one of the reasons why we utilize the use of gloves where we work.

Q What if the person just reached up with her own bare hand and tried to wipe or smear it off their face, would that

contaminate that substance upon their face?

A You mean with the secretor's hands?

Q The secretor's hands, yes.

A Yes, it could. Yes, sir.

Q So that there is no misunderstanding, I mean, the person, yeah, who has got the stuff on their face, would reach up with their own hand and move it about or try to wipe it off?

A Yeah, it could. Yes, sir, it could.

Q Would just plain old pure moisture from the air or dampness from the air have any effect on it?

A I would say within a short amount of time, I doubt it, unless if it -- unless it was raining or something, it could wash off the substance. As time goes on, you start -- the bacteria starts to contaminate the substance.

Q How long does it take to contaminate with this bacteria?

A It depends on the conditions of -- I mean, if you had a scraping or a wash or a substance like that and you left it out in the open, probably within a few days it would be contaminated to the point it couldn't be examined. If it had been refrigerated, you could extend that life, but it depends upon heat, moisture and other environmental conditions.

Q Gayle, one other question, what effect -- are you

familiar with a solution used in the -- your profession, hospital personnel, known as -- designated as a saline?

A Yeah, physiological saline.

Q What is saline?

A Saline is a salt solution, usually -- it's usually in hospitals and our forensic laboratory. It's physiological saline. So, it's equivalent to the amount of saline that's in the blood or in the blood serum that amount of salt content is the same.

Q Does it have any effect on human male seminal fluid when combined with it, in taking let's say a sample of it by the use of a swab dipped in a saline and then applying it to what is suspected to be human male seminal fluid?

A It would possibly dilute the, you know, the seminal fluid maybe to the point that it wouldn't be identified or wash it off. In our laboratory, saline wouldn't affect ABO grouping, but we couldn't do a PGM type, because the saline inhibits that enzyme when we are doing the examination.

Q So, it inhibits enzyme typing, but not ABO typing; is that correct?

A Right, that's correct.

MR. KING: That's all, your Honor.

CROSS-EXAMINATION

BY MR. DeBOLT:

Q Ms. Midkiff, I am Jack DeBolt and I represent the defendant in this case. I'd like to ask you a few questions, if I may. Let me ask you first, if I may, about the hair comparison and examination we were talking about. I take it that what you received as was called the State's Exhibit 7G, titled pubic hair combings, does -- is that a technique whereby a comb is run through a person's pubic hair to gather any loose hairs that might be there?

A Yes, sir, it is.

Q And I take it that such loose hairs conceivably could belong to a person whose pubic area is combed or it could belong to someone else?

A Yes, sir.

Q And would the purpose of comparing these combed hairs with the known pubic hairs be to determine whether or not these loose hairs belonged in this case to the victim or someone else?

A That's the purpose of the examinations, yes, sir.

Q And the sample of the known pubic hair, I take it, was acquired by perhaps someone at the hospital with a pair of scissors clipping some of the victim's pubic hairs?

A Should not be clipped, they should be plucked.

Q Okay. Now, I take it that these hairs that are achieved by the combing technique, given an adequate volume of known pubic hair of the victim, could also be compared to the pubic hair of a suspect; could they not?

A Yes, sir.

Q So that if you were provided with a pubic hair sample from a given suspect, you could compare the hair from the combings to that particular suspect and either determine that the combed hair was consistent with that suspect or inconsistent with that suspect?

A Yes, sir.

Q Has that science gotten down to the point where you can definitely tie an individual?

A Not definitely. It's still based on the experience and the opinion of the examiner. There is no percentage assigned to it as of yet. There is further research being done, but at this point, it's still -- you could say it could have originated or did not originate from. We do not say it definitely originated from one person, with the exclusion of any other, to any other person.

Q But you can say that a given, a particular hair, either could belong to a given person or it could not belong to a given person?

A Yes, sir.

Q Was any effort made in this case by you or anybody else, to your knowledge, to make a hair comparison between the combed hairs provided to you and the pubic hairs of Larry Holdren, the defendant?

A I never received a known specimen from Mr. Holdren. No, sir.

Q No such comparison was ever made, I take it?

A That's correct.

Q Now, the comb that you received amongst the items of specimens that you testified to, that that would be a comb specifically used only for the purpose of combing the pubic area; is that correct?

A No, the comb that I received was from the scene and all I examined it for was the presence of hair and I did not identify any hair in the comb, but it was retrieved from the scene.

Q Okay. So, that comb is the comb that they found up there at the scene of the crime?

A Yes, sir.

Q And the pubic hair combings, you were simply sent the hair that was obtained by virtue of that technique, I guess?

A Yes, sir.

Q Okay. Do you all do any fingerprint examination

down there at that lab?

A Not in my section, no, sir.

Q They do it in another section?

A There is a latent print section.

Q Was that comb sent around there for fingerprinting?

A I did not send it to latent prints. I returned it to Officer Spradling.

Q So, if it got into latent prints, he would have had to have brought it back or taken it over himself?

A I believe so, yes, sir.

Q Now, Ms. Midkiff, Mr. King asked you a hypothetical question and he asked you, I think, perhaps one side of the coin regarding the situation that he set up and I'd like to ask you the other side of that coin. In the event you had a washing from an individual who had a -- had ejaculated on her face and you had a washing from that and the victim had a blood type of A and you examined that substance and you detected a B antigen, you would have to conclude that the donor of that seminal fluid was either an AB or a B; would you not?

A You mean if I detected an A and a B?

Q Yes.

A Yes, sir. If the substance was not contaminated, yes, sir.

Q And contaminated by what?

A The bacteria or of some other foreign substance.

Q Okay. Now, let me ask you about that before I continue. If it's contaminated by bacteria, the bacteria would not change the antigens; would they?

A They often have a blood group that you will identify antigens from the bacteria and get a blood group.

Q Okay. Is there a test that can be -- is there any way to tell the volume of this material that you are testing, like if there is a whole lot of A and a little bit of B?

A No, sir.

Q But you wouldn't anticipate bacterial contamination for a number of days, I take it?

A No, if it had been stored properly, no, sir, I wouldn't.

Q And so again if the victim was a secretor and had A blood grouping blood and you made an examination of that material and you found A and B, you would have to -- you would be determining that the donor of the seminal fluid was either a B or an AB; is that correct?

A That's correct.

Q And in the event a given defendant is a type O, you would have to conclude that that would exclude him from being the donor of that seminal fluid; would it not?

A Yes, sir, I would.

Q Were any such facial washings ever provided to you in this case?

A No, sir.

Q Had they been promptly provided and had the donor of that seminal fluid been a secretor, would you anticipate being able to perform ABO grouping tests on a dried slide?

A On a slide?

Q Yes, ma'am.

A No, sir.

Q Why not?

A Well, the slide -- usually slides have been fixed. It's very difficult to work with a slide. You have reduced your volume to, you know, a minimum, because it's just a small amount that goes on a slide. I don't think there would be enough substance to work with.

Q Have you ever tried to?

A I tried to do PGM typing and ABO typing off slides.

Q Have you ever been successful ever doing ABO typing off slides?

A I haven't, no, sir.

Q How about from a swab?

A Oh, yes, swabs have a sufficient amount of material that you should be able to obtain some groupings.

Q How much material? I know it probably depends upon the concentration, but how much material do you really need to perform an ABO examination?

A It's really hard to estimate. I have had washings of just a few milliliters and have been successful in getting ABO typing of it, plus doing other examinations, such as acid phosphatase and making a slide from that.

Q You spoke of milliliters. Is that the same thing as a cc?

A Yes, sir.

Q And you have on just a few milliliters been able to perform that type of examination?

A Yes, sir.

Q Now, with respect to blood types, is it -- is my thinking correct that there are four basic blood types A, B, AB and O?

A Yes, and the ABO group type or international system. There are those breakdowns.

Q Is there some other system that has different classification of blood types?

A Well, yes, when we go into the enzymes, such as a PGM, we have a PGM subtyping 1+1+1-. It goes on from 2+2+ goes and breaking down. There are three basics. Let me explain that again, a 1, a 2, 1 and a 2. Then they are further

broken down. So, yes, there are many more markers.

Q Okay, but these would be subclassifications?

A Of the international system.

Q Of A or B or AB or O, I take it?

A Yes, sir.

Q How long would such a sample be preserved in an uncontaminated state, if it were refrigerated?

A I can't give an exact date. They were talking about biological materials and they degrade at varied rates. It's just kind of determined on the person's body chemistry. An example I will give you of that of my blood is used as a standard in our laboratory. Frozen it will last for several weeks, but another person in our laboratory uses her blood as a standard as well, hers lasts for several months. So, it's just determined on the blood chemistry, the chemistry, the metabolism of the person and I say you refrigerate it, you should be able to get results within a couple weeks.

Q At least that long, I take it?

A Yes, but not always is what I am trying to explain, that there is no definite time set on that.

Q But possibly as long as several months, I take it?

A Possibly, yes, sir.

Q Do you do monoclonal examinations down there?

A No, sir.

Q That is a more sophisticated type of test for blood grouping, is it not, used for -- you use perhaps for many things, but also for blood grouping that type of examination can be used; can it not?

A I am not really that familiar with it, to even really comment on it.

Q Okay, you have no opinion as to whether monoclonal examination is appropriate to be used for blood typing?

A No, sir, I couldn't tell you.

MR. DeBOLT: I have no further questions, your Honor.
Thank you.

MR. KING: No more questions, your Honor.

THE COURT: May I just ask one question? If you have the -- some secretions, body fluids from two separate people who are both secretors, can you examine that sample and determine consistently (One) that it is a sample from two separate people and (Second) what the blood groupings of those individuals are from a single sample?

THE WITNESS: From a single sample, if I did not have the two knowns, if I did not have the two knowns and there was a sufficient amount of each secretion from each person, I would not be able to determine the individual blood type or if it was too uneven a mixture, I would just be identifying one blood group.

THE COURT: If you had one known, could you make a distinction and give the complete blood typing of the unknown in that mixture?

THE WITNESS: No, again such as if I picked up an A and I knew my secretor, I knew that my known was an A and was a secretor, then the conclusions I would come to would be that if I have sufficient amount of the other secretion, that person was either also with A. You pick up a person could be an O, that person could be an A, that person -- the other person could be a nonsecretor.

THE COURT: Okay, I think that's all I have.

MR. DeBOLT: I have nothing further, your Honor.

THE COURT: May the witness be excused? You may be excused, thank you.

Ladies and gentlemen, if you'd like to take a couple of minutes of break, let's take about 10 minutes.

WHEREUPON, the Court stood in a recess in the trial of this case.

(After Recess)

PRESENT: All of the same parties as heretofore noted, including the defendant and his counsel.

THE COURT: Call your next witness.

MR. KING: Dr. Bobby Caldwell.

DR. BOBBY CALDWELL, was thereupon called as a witness