MEGAN CLEMENT, was called as a witness, and after having been first duly sworn, was examined and testified on her oath as follows:

VOIR DIRE EXAMINATION

BY MR. DREWRY:

Q. You're Megan Clement; is that correct?

A. Yes, sir, that's correct.

Q. And, Ms. Clement, your employed?

A. I am employed at the Lab Corp, which is a private medical diagnostic testing company in Research Triangle Park, North Carolina.

Q. All right. For the purposes of this hearing right now, you're an expert.

Did you have occasion to review Nicole Harold's records and notes from examination of the DNA evidence submitted by the state to her?

A. Yes.

Q. Okay. And with regards to Item 200, the gloves, did you have occasion to review her analysis with regard to that?

A. Yes, I have.

Q. All right. Based on that review, did you also perform some statistical analysis of the matches or the information found on both the right

glove and the left glove?

A. I calculated the statistical analysis on the left glove only.

Q. Okay. And what did your statistical analysis show?

A. I used what's called a probability of inconclusion or exclusion. Using that particular methodology, you don't have to define anything, you don't have to define how many people could potentially be contributors. It's simply a calculation which gives an estimate of how many people -- if you randomly selected an individual, what's the probability that they would be included in that potential mixture.

And based on my calculation, within the African-American population, the probability of randomly selecting an individual who would be included in that mixture at the five locations that were used in Ms. Harold's analysis is one in one hundred and ninety-five.

MR. DREWRY: Just a minute, Judge.

(Discussion was held off the record.)

MR. BERGER: Judge, we're putting her --

MR. DREWRY: Just to --

MR. BERGER: -- on just as a proffer to --

MR. DREWRY: Just to proffer what you'd ruled on that we would not be allowed to introduce unless --

THE COURT: This is what you want to introduce that you think I've ruled you can't?

MR. DREWRY: Yes, sir.

MR. BERGER: Yes, sir.

THE COURT: All right.

MR. PETTY: Judge, just a couple quick questions.

VOIR DIRE EXAMINATION

BY MR. PETTY:

Q. I notice you have a folder with you.

A. Yes, sir.

Q. Is -- that does that contain any written notes you've made?

A. It does contain the printouts from the statistical calculation, but the bulk of it is

actually the case file from Ms. Harold.

Q. So you do have -- you did print out in report form the results of your statistical calculations?

A. It's not really a report.

Q. Well --

A. It's simply --

Q. -- it's a printed document?

A. -- a computer program that we use to calculate. And, yes, I mean, I printed -- I printed it out so that I would have the numbers.

Q. And, of course, that was available to the defense counsel any time they wanted it, wasn't it?

A. The printout?

Q. Yes.

A. I don't know that they know that I actually had a printout. They know I calculated the statistics.

Q. I mean, if they called you up and said would you please send me a copy of that, you would have done that, wouldn't you?

A. Yes.

Q. And you understood that you were hired by the defense or retained by the defense for this

purpose?

A. I was retained by the defense to review the complete case file, yes.

MR. PETTY: Thank you.

FURTHER VOIR DIRE EXAMINATION

BY MR. DREWRY:

Q. And you would have talked to anybody that called you about this case; right?

A. With permission, certainly.

MR. PETTY: With permission.

THE COURT: All right, all right. That's enough.

MR. DREWRY: I don't have any other questions, Judge.

THE COURT: Now, I don't have any problem with that testimony, Mr. -- if that's it and no exhibits are being offered, it's -- it's -- I think that's clearly the testimony regarding accuracy and reliability of procedures employed and the analysis that pertains to DNA sample.

So I'm going to allow that, Mr. Petty.

MR. PETTY: Well, Your Honor -- Your Honor, the --

THE COURT: I made my ruling.

MR. PETTY: I've got --

THE COURT: Your exception is noted. I'm not going to --

MR. PETTY: This is a different issue.

THE COURT: What's your next issue?

MR. PETTY: This is the issue of the violation of the discovery order. Clearly she had written documents in her possession that are also under the control of the defense attorneys.

THE COURT: I don't --

MR. PETTY: She testified she never talked to --

THE COURT: I don't find that a violation of the discovery order, Mr. Petty.

MR. PETTY: It --

THE COURT: She has not submitted a written report to Mr. Drewry.

Have you?

THE WITNESS: No, sir, I have not.

THE COURT: We ready to proceed?

MR. PETTY: And the Court is reversing its previous ruling and allowing her testimony as to random --

THE COURT: I'm going to allow what I just heard. I'm not reversing anything. I've heard the proffer, and I'm allowing the proffer. I don't think that is -- is in contravention of the statute.

Bring the jury in.

THE COURT: There are no exhibits from this witness?

MR. DREWRY: No, sir, Judge.

(Jury enters the courtroom.)

DIRECT EXAMINATION

BY MR. DREWRY:

Q. Ma'am, would you tell the jury your name?

A. Yes. My name is Megan Clement.

Q. And where are you employed Ms. Clement?

A. I'm employed at a company called a Lab Corp in Research Triangle Park, North Carolina.

Q. What do you do at Lab Corp?

A. I am the technical director in the forensic identity testing laboratory.

Q. And does that include DNA analysis?

A. Yes. The forensic identity testing department specifically analyzes various samples and consults on DNA analysis.

Q. Ms. Clement, where did you go -- did you go to college?

A. Yes, sir, I did.

Q. Where did you go to college?

A. I have a Bachelor of Science in biology from West Field State College in Massachusetts, and a Master of Science in forensic sciences from the University of New Haven in Connecticut.

I've also attended graduate level courses at the University of New Mexico in Albuquerque and University of Virginia through courses that were actually taken at the FBI academy in Quantico, Virginia.

Q. In addition to that type of education, have you continued with continuing education in your current position and in your previous positions relating to DNA analysis?

A. Yes, absolutely. When I first started

in the field forensics after receiving my master's degree, it was 1985, and there was no DNA analysis being performed. So certainly over the coarse of the years, I've had specialized courses dealing with DNA analysis and the various types of methodologies that are employed to perform that analysis.

I also attend conferences and symposiums to keep up with the current events in the fields as a part of accreditation requirements.

Q. Ms. Clement, where did you work before you came to the Lab Corp?

A. Prior to being employed at Lab Corp, I was -- originally started at Albuquerque, New Mexico at the city police department crime laboratory. I was employed there from March of 1985 through March of 1991.

After that, I left and went to Fort Worth, Texas, where I was employed at the Tarrant County Medical Examiners' Office in their forensic biology department, and I worked there until November of 1994, when I moved to North Carolina to work for Lab Corp.

Q. Ms. Clement, in that span bfPrtxime, have you been qualified as an expert in the field of DNA analysis as well as forensic identification?

A. Yes, sir.

Q. And how many times have you qualified as an expert?

A. Specifically with DNA analysis, I have been qualified somewhere between probably two hundred and seventy to two hundred and seventy-five times.

Q. And how many different state courts, ballpark?

A. I believe it was somewhere around twenty-seven or twenty-eight different states.

Q. Including the Commonwealth of Virginia?

A. Yes, sir.

MR. DREWRY: Judge, we would offer Ms. Clement as an expert in her field.

THE COURT: Mr. Petty?

MR. PETTY: I have no objection.

THE COURT: She is accepted as expert in her field.

BY MR. DREWRY: (Continuing)

Q. Mrs. Clement, just a little brief knowledge, in order to get a DNA sample, how large

is large?

A. Well, certainly, I mean, large can be any size. To get a DNA profile from a sample, it doesn't need to be large. Oftentimes, you can't even see a stain and still be able to get a DNA sample from it, because the cells are microscopic.

Q. So if someone says that they have a large amount of DNA, it could still be within a sample of a stain that is invisible to the naked eye?

A. Yes, absolutely.

Q. Okay. Now, with regard to this particular case, did you receive the notes and statistical evaluations done by Nicole Harold of the Commonwealth's Division of Forensic Science?

A. Yes.

Q. And it was your understanding that you received her complete file; is that correct?

A. That's correct.

Q. And have you had occasion to review that file as it relates to Items 200, the left and the right glove?

A. Yes.

Q. Based upon your review of Ms. Harold's work, what conclusion do you come to with regard to

Leon Winston, Kevin Brown and David Hardy in the mixture of the DNA found in those gloves?

A. Based on the results of the testing of the left and the right glove, there were numerous genetic areas of DNA that were tested where characteristics possessed by Mr. Leon Winston were not found in that mixture; and, therefore, I would exclude Mr. Winston as being a possible contributor.

Q. To -- of the DNA to those gloves?

A. That's correct.

Q. Okay. Now, Ms. Clement, did you also have occasion to check Ms. Harold's statistical analysis?

A. Yes, I did.

Q. And with regard to inclusion of the African-American population, do you disagree with regard to her statistical analysis on those gloves?

A. I did disagree with the statistical analysis on those gloves, yes.

Q. And did -- and did you run a new statistical analysis?

A. I did perform a statistical analysis called a probability of inclusion.

Q. And what did that -- can you explain a little bit about what probability of inclusion is?

A. Yes. With the -- there are two types of statistical analysis that can be performed on mixtures.

One is the likelihood ratio, which Ms. Harold had run. With that you have to define the number of contributors in a sample and whether there are knowns or unknowns.

With a probability of inclusion, you don't have to define how many people are potentially present. What the probability of inclusion will determine is if you were to randomly select an individual, what is the probability they would be included in the mixture that is found.

Having run that particular statistical analysis, the probability of randomly selecting an individual out of the African-American population that would be included in the mixture at the five areas that Ms. Harold used for her evaluation was one in one hundred and ninety-five.

MR. DREWRY: Judge, may I have a minute?

THE COURT: Yes.

(Discussion was held off the record.)

MR. DREWRY: We rest -- I have no further questions, Judge.

THE COURT: Cross-examine?

(Discussion was held off the record.)

MR. PETTY: Thank you, Your Honor.

CROSS-EXAMINATION

BY MR. PETTY:

Q. Mr. Clement, how long have you been doing work with DNA?

A. I have been doing work with DNA since 19 -- really 1989. When I was still employed in Albuquerque, we started setting up our DNA laboratory, and I was instrumental in validation studies there.

Q. And that was about the time, I guess, that DNA was first becoming a forensic science being used in a courtroom or in a crime scene identification context; is that correct?

A. Yes, sir.

Q. And back then, I -- is it fair to say that the DNA was not nearly as exact and precise as it is today, at least in terms of your ability to

identify and compare samples?

A. Back then we used a different methodology that required much larger quantities of DNA but, the science was still exact --

Q. Right.

A. -- or fairly --

Q. Yeah.

A. -- I mean, it was reliable as long as the quality control --

Q. I guess --

A. -- measures were used.

Q. -- that was an inartful question.

Your ability to make comparisons today is much greater because you no longer need that quantity of sample?

A. That's correct.

Q. Put it that way. Thank you.

And that is a result of the technique you now use, which, in effect, replicates the sample that you have as it reproduces itself over and over again so your sample becomes much larger?

A. Yes.

Q. And DNA is certainly a very well accepted method of identifying biological material and linking it to a specific individual, isn't it?

A. The biological material -- DNA does not identify biological material.

Q. I'm sorry.

A. The DNA is found in biological materials that you can then test to potentially link to an individual.

Q. I'm sorry. Once again, an inartful question.

It is a very well accepted method of linking a specific sample of biological material to a unique individual?

A. Yes.

Q. And, in reality, we talk about numbers that are so high that really we're talking about almost, you know, an exact match, this person left this particular biological sample?

A. In some instances, yes --

Q. When we get up in --

A. -- but by identical siblings.

Q. When we get up into the billions, we're certainly saying this is the one that left that sample?

A. Unless there was an identical sibling, yes.

Q. Like an identical twin.

And, as a matter of fact, besides using DNA in a context study of a criminal prosecution, DNA is also being used in reevaluating some cases in the past, isn't it?

A. Yes, absolutely.

Q. And it's being relied on not just to put people in jail but sometimes to let them out of jail, isn't it?

A. That's correct.

Q. It -- It's also used in the -- in a -- in the medical context quite a bit, isn't it?

A. Absolutely.

Q. Doctors make life-or-death decisions based on the -- the reliability of that -- of that information?

A. Yes.

Q. And it's -- and your lab uses the same basic procedures and underlying theory of DNA that, say, the Division of Forensic Science here in Virginia uses, don't you?

A. Yes.

Q. As a matter of fact, I assume with your experience in DNA, you're aware that the bureau of forensic science in the Commonwealth of Virginia is one of the most well respected labs in the

country, is it not?

MR. DREWRY: Judge, I object. We're getting awfully far afield.

THE COURT: I'm going to allow some latitude under the circumstances.

MR. DREWRY: Yes, sir.

BY MR. PETTY: (Continuing)

Q. But my question is that having been in this area as long as you have, you must be aware that the bureau of forensic -- the Division of Forensic Science in the Commonwealth of Virginia is one of the better respected labs in the country in terms of DNA, isn't it?

A. It is, yes. It was one of the first laboratories to perform DNA analysis.

Q. Now, you've discussed in your direct testimony your analysis of that one exhibit, these -- this pair of gloves; correct?

A. Yes.

Q. The -- you said that there was areas on that glove that had a mixture -- let me rephrase that.

You did not do any testing of the

glove itself, did you?

A. No. I did not --

Q. Okay.

A. -- do any.

Q. All you were doing was reviewing what Nicole Harold had done?

A. That's correct.

Q. And that's your -- and your testimony is you're -- you're concerned with what you received. That's your disagreement, with what you received?

A. No, not what I received. I disagree with the conclusions that were drawn and --

Q. I'm sorry.

And I mean all the review you did, this is the one area where you had -- these gloves?

A. That's correct.

Q. You said you didn't do any written report --

A. That's correct.

Q. -- is that correct?

So you didn't provide that to the defense counsel, any written report?

A. No.

(Discussion was held off the record.)

MR. PETTY: Thank you very much. That's all the questions I have.

THE COURT: All right. Any redirect?

MR. DREWRY: No, Your Honor.

THE COURT: May this lady be excused?

MR. DREWRY: Please, Judge. I believe she has to be in North Carolina.

THE COURT: Mr. Petty, any objection?

MR. PETTY: No, sir.

THE COURT: You're free to go. Thank you.

Next witness.

THE BAILIFF: Straight back across, ma'am.

(Witness stood aside.)

MR. DREWRY: Angela Whitehead.

THE COURT: Is Ms. Whitehead here?

THE BAILIFF: Yes, sir.

Just stand right here. Face the clerk.

THE CLERK: Raise your right hand,