



Commonwealth of Virginia  
Department of General Services  
Division of Consolidated Laboratory Services  
**BUREAU OF FORENSIC SCIENCE**

**August 7, 1984**

**CERTIFICATE OF ANALYSIS**

Central Laboratory  
P. O. Box 999  
Richmond, Virginia 23208  
Tel. No. (804) 786-4707

TO: **Chesterfield County Police Department**  
**Attention: Sgt. M. J. Herndon**  
**P.O. Box 148**  
**Chesterfield, VA 23832**

Your Case # **840618782**

FS Lab # **C84-03128**

Victim(s): **[REDACTED]**

Examiner: **Lynn C. Staffieri**

Suspect(s): **CRISTOBAL, Luis**

Date Received **6-21-84**

Evidence Submitted By: **Sgt. M. J. Herndon**

- Item #1 - Physical Evidence Recovery Kit from [REDACTED].**
- Item #2 - Physical Evidence Recovery Kit from Luis Cristobal.**
- Item #3 - Envelope containing hairs from Chevrolet (Lic #BEZ 479).**
- Item #4 - Front seat cover from Chevrolet (Lic #BEZ 479).**
- Item #5 - Jeans from Luis Cristobal.**

**RESULTS OF EXAMINATION:**

**Item #1 - Spermatozoa were identified on the vaginal smears and in an extract of the stained crotch area of the underpants from [REDACTED]. Secretion typing performed on the vaginal swab and underpants indicates the presence of O secretions. Tests on the blood and saliva from [REDACTED] identify her as an O secretor.**

**Three (3) Caucasian pubic hairs were present on the underpants and twenty-six (26) Caucasian pubic hairs were recovered in the pubic hair combings from [REDACTED]. All of these hairs are visually consistent with the pubic hair sample from [REDACTED] and different from the pubic hair sample from Luis Cristobal.**

IN FUTURE CORRESPONDENCE REFERENCE THIS MATTER PLEASE REFER TO THE FS LAB # ABOVE

Chesterfield County Police Department

RESULTS OF EXAMINATION: (continued)

- Item #2 - Tests on the blood and saliva from Luis Cristobal identify him as a nonsecretor. The hairs were used for comparison purposes.
- Item #3 - Two (2) Caucasian head hairs and one (1) Caucasian head hair fragment, consistent with the head hair sample from [redacted], were present in the glassine envelope. Eight (8) other Caucasian head hairs, different from both [redacted] and Luis Cristobal, were also present in the envelope
- Item #4 - Nine (9) Caucasian head hairs, different from the head hair samples from both [redacted] and Luis Cristobal, were recovered from the front seat cover of the car. Three (3) Caucasian head hair fragments, unsuitable for comparison purposes, and one (1) head hair fragment, consistent with the head hair sample from Luis Cristobal, were also recovered.
- Item #5 - One (1) Caucasian head hair fragment, different from the head hair samples from both [redacted] and Luis Cristobal, was present on the jeans from Luis Cristobal. There were several short dark head hair fragments on the jeans, these are visually consistent with the head hair sample from Luis Cristobal. One (1) animal hair was also present on the jeans.

The evidence may be picked up at the laboratory.

✓ LCS:sap

STATE OF VIRGINIA Richmond, to-wit:

Forensic Scientist

Shirley M. Patterson

THIS day personally appeared before me, \_\_\_\_\_, a notary public, in and for said city/county in the

Lynn C. Staffieri

Commonwealth of Virginia, \_\_\_\_\_, who signed the foregoing Certificate of Analysis, before me, and after being duly sworn, made oath (1) that he performed the analysis and/or examination the results of which are herein contained, (2) that said analysis and/or examination was performed in a laboratory operated by the Division of Consolidated Laboratory Services of the Commonwealth or authorized by such Division to conduct such analysis and/or examination and (3) that this Certificate of Analysis is true and correct.

Given under my hand this 7th day of August, 1984

My commission expires August 15, 1987

Notary Public

12 1                    LYNN STAFFIERI, a witness called by the  
2 Commonwealth, having been duly sworn, testified as follows:

3  
4                    DIRECT EXAMINATION

5 BY MR. HAUCK:

6                    Q            Can you state your name for the jury.

7                    A            My name is Lynn Staffieri.

8                    Q            Mrs. Staffieri, where are you employed?

9                    A            I'm employed by the Commonwealth of  
10 Virginia.

11                    Q            In what capacity?

12                    A            I'm a forensic scientist.

13                    Q            Where is your place of employment?

14                    A            It's at the Bureau of Forensic Science  
15 in Richmond, Virginia.

16                    Q            Can you briefly tell the jury what  
17 forensic science covers.

18                    A            My specific expertise is in forensic  
19 serology, which deals with the identification of blood,  
20 body fluids, hairs, and natural fibers.

21                    MR. HAUCK: Judge, there has been a  
22 stipulation as to this young lady's being an  
23 expert.

24                    THE COURT: All right.  
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BY MR. HAUCK: (Continuing)

Q Did you have an occasion to receive certain physical evidence involved in the Luis Cristobal case?

A Yes, sir, I did.

Q Do you have a copy of the report before you?

A Yes, I do.

Q I'd ask you to look at Commonwealth's Exhibit No. 12. This is, in fact, a duplicate of what you're going to be testifying from; is that not true?

A Yes, it is.

MR. HAUCK: If you have no objection, I'll just let her use her own copy.

MR. HUTCHENS: Yes. I have the exhibit, so I can follow that.

Q Directing your attention to Item No. 1, which is the physical evidence recovery kit from [REDACTED] [REDACTED] can you first briefly explain to the jury what a perk kit is.

A Yes, sir. Anytime when two people come in contact with each other there is the possibility that body fluids or hair or fibers will be exchanged. A physical evidence recovery kit is an effort by which hospital personnel attempt to recover any of those items from a

CRANE-SNEAD & ASSOCIATES, INC.

COURT REPORTERS  
4914 FITZHUGH AVENUE, SUITE 203  
RICHMOND, VIRGINIA  
PHONE 355-4335

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1 victim and preserve those items of evidence. They are  
2 then taken to the laboratory, and we examine these items  
3 for the presence of body fluids or blood or hairs or  
4 fibers.

5 Q What did the results of your investigation  
6 of the perk kit of [REDACTED] show?

7 A Okay, first I'd like to explain a couple  
8 of things that are present, that is present in a physical  
9 evidence recovery kit. The physician will take a pubic  
10 area combing. That is merely a small combing. He combs  
11 the pubic area of the victim in an attempt to recover any  
12 loose pubic hairs that may be present. The physician will  
13 then take a set of swabs, which are merely Q-tips, and in  
14 this instance, in this physical evidence recovery kit, the  
15 physician took a swab from the vagina of [REDACTED],  
16 and from the swab he rubbed the swab on a microscope slide  
17 in an attempt to transfer any fluid that may have been  
18 present on the swab, to transfer small amounts of this  
19 fluid onto the microscope slide. We use these microscope  
20 slides to look for spermatazoa, which is the reproductive  
21 cell. The physician will then take a series of known  
22 samples from the victim that we use for comparison  
23 purposes, and then these known samples include a tube  
24 of blood and pulled head and pulled pubic hair and also  
25 some saliva swabs that we use to determine secretor status.

15 1 The population is divided into what we call secretors  
2 and nonsecretors. A secretor is a person in whose body  
3 fluids, other than blood -- this would include saliva,  
4 seminal fluid, vaginal fluid -- we can detect A, B, or O  
5 blood group substances that correspond to the victim or  
6 to the person's blood type. Say a person has a blood type  
7 O and they are a secretor; we will detect type O in their  
8 body secretions. A nonsecretor is someone in whose body  
9 fluids we cannot detect these A, B, or O blood group  
10 substances.

11 When I received the evidence, the physical  
12 evidence recovery kit from [REDACTED], the first thing  
13 I did was examine the vaginal swabs and smears for the  
14 presence of seminal material and there was seminal material  
15 present on the vaginal swabs and the vaginal smears.

16 Q Would you expect to find seminal fluid  
17 in the vaginal smear of someone who had not had inter-  
18 course?

19 A No, I would not.

20 Q So, therefore, what would that indicate?

21 A That at some point within the last two  
22 days [REDACTED] had had intercourse.

23 Q Continue. I didn't mean to interrupt you.

24 A Okay. Since I determined that there was  
25 seminal material on the vaginal swab, I proceeded to do

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1 the secretion typing on the vaginal swabs. Prior to this,  
2 I tested both the blood and the saliva from [REDACTED]  
3 and determined that she was a type O secretor. I did the  
4 testing on the vaginal swabs and detected type O secretions  
5 on the vaginal swabs. Since I know -- since I found  
6 seminal material, I know that there is a combination of  
7 vaginal fluid and seminal material on that vaginal swab.  
8 So the person depositing the seminal material had to be  
9 either an O secretor or a nonsecretor. If the person  
10 depositing that seminal material had been either an A or  
11 a B secretor, I would have detected that in the secretion  
12 typing, and since I didn't pick any of that up, that  
13 indicates that the seminal material had to come from  
14 someone that is either an O secretor or a nonsecretor.

15 Q Did you subsequently have an occasion to  
16 analyze the perk kit of Luis Cristobal?

17 A Yes, sir, I did. The physical evidence  
18 recovery kit that was taken from Luis Cristobal contained  
19 blood and saliva swabs, again which we use to determine  
20 secretor status and blood type, and it contained a series  
21 of known pulled head and pulled pubic hairs from  
22 Mr. Cristobal. I performed the blood typing and the  
23 secretion typing from the blood and saliva swabs and  
24 determined that Mr. Cristobal is a nonsecretor.

25 Q Therefore, what conclusions can you draw

17 1 with regard to Mr. Cristobal's fitting into the category  
2 you previously described as those who could have possibly  
3 left the seminal fluid in [REDACTED] vagina?

4 A Mr. Cristobal cannot be excluded as a  
5 possible suspect.

6 Q Did you also have an occasion to test  
7 some hairs from that perk kit?

8 A Yes, sir, I did. Pubic combings that were  
9 performed on [REDACTED] contained 26 Caucasian pubic  
10 hairs that were all visually consistent with the pubic hair  
11 from [REDACTED].

12 Q In her perk kit did you also include some  
13 head hairs by which you conducted an analysis from?

14 A Yes, sir.

15 Q Did you have an occasion to receive a  
16 glassine envelope with three Caucasian hairs in it? I  
17 direct your attention to Item No. 3.

18 A Yes, sir, I received an envelope that  
19 was labeled "Hairs taken from the right front seat" or  
20 taken -- yes, hairs taken from the right front of Chevy,  
21 license number BEZ 479.

22 Q I'd ask you to look at Commonwealth's  
23 Exhibit No. 9, if you would. Can you separate these  
24 and tell me if that is, in fact, the exhibit that is  
25 indicated as No. 3 in your analysis.



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NOTE: Witness opening bag.

Q Is this marked in any way, any identifying mark?

A Yes, sir, there is. The laboratory case number and my initials are on this envelope.

Q Did you have an occasion to compare those hair fragments and hair follicles with the hair of the victim, [REDACTED]?

A Yes, sir, I did.

Q What did the results of your analysis show?

A There were a total of 10 head hairs, 10 Caucasian head hairs and one Caucasian head hair fragment in the envelope. I performed a hair comparison using the head hair sample from [REDACTED] and head hair sample from Luis Cristobal, and the way that our laboratory performs a hair comparison, we first look at the hairs visually to determine general characteristics, length, color, things of that nature. We then put the hairs on microscope slides and use what is called a comparison microscope. It's actually two microscopes that are connected to one set of eye pieces so that we can actually look at two separate items at the same time and see them on a split screen image to do actual one-to-one comparison. I examined first the known head hair sample from Laura Shuman to determine a range of

19 1 characteristics, microscopic characteristics for her head  
2 hair sample. I then examined the head hair sample from  
3 Luis Cristobal and established another range of character-  
4 istics for his hair. I then look at the two sets of hairs  
5 to decide whether or not I can tell the difference, both  
6 visually and microscopically, between those sets of  
7 characteristics. In this instance it was possible to do  
8 that. I also have the hairs mounted individually that  
9 were taken from his car, and I look at those hairs then  
10 under the microscope and compare them with the known hair  
11 sample from [REDACTED]. And of the 10 Caucasian head  
12 hairs and the one Caucasian head hair fragment that were  
13 present in this sample, two of the head hairs and the  
14 head hair fragment were consistent with the head hair  
15 sample that I received from [REDACTED].

16 Q That refers to the hairs that were  
17 recovered from the automobile?

18 A Yes.

19 Q What was the result of your analysis  
20 of the remaining head hairs?

21 A The rest of the head hairs, the other  
22 eight Caucasian head hairs, were different from the head  
23 hair samples that I received from both [REDACTED] and  
24 Luis Cristobal.

25 MR. HAUCK: Answer any questions

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that Mr. Hutchens or his associate might have.

CROSS-EXAMINATION

BY MR. HUTCHENS:

Q So, Mrs. Staffieri -- is that how you--

A Staffieri.

Q You found hairs that didn't belong to  
either one of them?

A Yes, sir, that is correct.

Q You say that there are people that are  
O secretors and people who are nonsecretors?

A Yes, sir.

Q Are there any other kinds of secretors?

A Yes, sir, you can have type A secretors,  
type B secretors, and type AB secretors who correspond  
to the blood groups.

Q So, you have secretors that you can  
label; then you have a group that is nonsecretors?

A That is correct.

Q And there is no way to tell from a  
nonsecretor what type it is?

A That is correct.

Q What is the percentage of the population  
that are nonsecretors?

A Twenty percent of the population.

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Q Twenty percent. So, when you use the term "nonsecretor," you found that Luis Cristobal was a nonsecretor and you therefore can't rule him out?

A That's correct.

Q You really can't rule out 20 percent of the population?

A Right.

Q Correct?

A Correct.

MR. HUTCHENS: That's all I have.

MR. HAUCK: That would be all the questions I have for this witness.

THE COURT: All right. Thank you very much. You are excused.

\* \*WITNESS STOOD ASIDE\* \*

MR. HAUCK: Judge, that would be the Commonwealth's case in chief.

THE COURT: All right.

Ladies and gentlemen of the jury, go in the jury room for just a few minutes, please.

JURY OUT

THE COURT: Mr. Hauck, that hasn't been introduced into evidence.