

1 three areas than the other?

2 A. Generally out of the ejection port.

3 Q. And that would be on top of the gun?

4 A. Yes, ma'am, yes, ma'am.

5 Q. And so -- okay. Thank you. I was -- just got a  
6 little primer there on gunshot residue?

7 A. Yes, ma'am.

8 Q. Okay. Thank you, Mr. Schroeder. I appreciate it.

9 MS. SCARDINO: I have no further questions.

10 THE WITNESS: Yes, ma'am.

11 THE COURT: May this witness be excused?

12 MR. REISS: Yes, your Honor.

13 THE COURT: Thank you, sir. You may be excused.

14 THE WITNESS: Thank you.

15 THE COURT: Would you call your next.

16 MS. FULLER: The State calls Priscilla Hill.

17 THE COURT: You may proceed.

18 MS. FULLER: Thank you.

19 PRISCILLA HILL,

20 having been duly sworn, testified as follows:

21 DIRECT EXAMINATION

22 BY MS. FULLER:

23 Q. Good afternoon. Would you please introduce yourself  
24 to the jury.

25 A. Hi. My name is Priscilla Hill.

1 Q. And how long have you been known as Priscilla Hill?

2 A. Almost a year now.

3 Q. Okay. What was your previous name?

4 A. Priscilla Encida.

5 Q. Okay. So have you been married?

6 A. Married, yes, ma'am.

7 Q. Okay. Congratulations.

8 A. Thank you.

9 Q. Could you please tell the jury how you're employed.

10 A. I work for the Houston Police Department crime  
11 laboratory in the biology section.

12 Q. And what is your title there?

13 A. A criminalist.

14 Q. Could you please tell the jury what education you  
15 have, background, training you have to be a criminalist?

16 A. Sure. I have a bachelor's of science degree in  
17 forensic science from Baylor University and a master's of  
18 science in forensic DNA analysis from the University of Central  
19 Lancashire.

20 Q. In addition to that have you received additional  
21 training in DNA?

22 A. I did. Once I was employed with the police  
23 department, I went through vigorous training for screening and  
24 for DNA analysis. Those are two different, I guess,  
25 departments within one department, but the training included

1 lectures, observation, practical case work, written exams, as  
2 well as mock trials. And I did that separately for screening  
3 and for DNA.

4 Q. How long have you been employed with the HPD crime  
5 lab?

6 A. Just hit seven years.

7 Q. And currently what are your duties, what is your  
8 position with the crime lab?

9 A. Currently I am able to do everything within the  
10 department as far as screening and DNA analysis, but right now  
11 I am specifically a report writer for DNA.

12 Q. Back in 2010 what were your duties?

13 A. I was still doing some lab work at the time as well  
14 as writing reports.

15 Q. Is the DNA laboratory at HPD certified or accredited?

16 A. It is accredited.

17 Q. And do you know how long it has been accredited?

18 A. We gained our initial accreditation for screening May  
19 of '05, and DNA June of '06, and we have been accredited ever  
20 since. We renew that every five years.

21 Q. Have you previously testified as an expert in the  
22 area of DNA?

23 A. Yes.

24 Q. And have you been deemed an expert by the courts of  
25 Harris County in the area of DNA?

1 A. Yes, ma'am.

2 Q. And have you testified on few or many occasions in  
3 that capacity?

4 A. Approximately 25 times.

5 Q. Okay.

6 All right. Can you tell us what DNA stands for?

7 A. DNA stands for deoxyribonucleic acid.

8 Q. Could you please spell that for my court reporter?

9 A. Sure. D-e-o-x-y-r-i-b-o-n-u-c-l-e-i-c, then acid,  
10 a-c-i-d.

11 Q. What is DNA?

12 A. DNA is our genetic blueprint. It's instructions for  
13 life. It allows us to live and breathe.

14 Q. And where do you find DNA?

15 A. DNA is found in any nucleus of a cell, which we can  
16 have cells in all fluids of our body within our body. So we  
17 inherit our DNA at conception and it stays consistent  
18 throughout our lifetime.

19 Q. So anything that is a living part of our body will  
20 contain DNA?

21 A. Well, we have cells within our body, and that's found  
22 all over, and certain cells have a nucleus. In the nucleus is  
23 where the DNA is held, and that is where our genetic code is  
24 held.

25 Q. Okay. So how do you use that genetic code in

1 relation to your studies with DNA?

2 A. For forensic purposes we are able to target certain  
3 areas of DNA and develop what we call a genetic profile. This  
4 profile is unique to us, because we target the part of the  
5 genome that is -- that differs from person to person.  
6 99.7 percent of our DNA is the same, that allows us to live and  
7 breathe and walk and our organs to function. It's the  
8 .03 percent that makes us different, and that's the areas that  
9 we're able to use for forensic purposes so that we can  
10 differentiate people.

11 Q. What do you use specifically from that .03 percent?

12 A. It is -- they're call STRs, short tandem repeats, and  
13 these are repetitive codes in our DNA that we are able to  
14 target.

15 Now, they don't code for anything. They don't tell  
16 us anything. They are -- kind of dubbed them junk DNA because  
17 they're not informative in any other manner, but for our  
18 forensic purposes they are.

19 Q. But those -- are they genetic markers, is that fair  
20 to say?

21 A. Yes.

22 Q. Okay. Are those genetic markers unique to each  
23 individual?

24 A. The ones that we focus on, yes, excluding identical  
25 twins, they will have the same profiles, yes, they are unique.

1 Q. But you can take those genetic markers and compare  
2 them to other known sources to see if it's the same person?

3 A. Correct. So in -- for forensics, what we will  
4 typically see is we will get items of evidence to analyze that  
5 are in question, specifically in a criminal case, and we will  
6 analyze that particular item of evidence.

7 If we develop a profile from that item, we need a  
8 known profile to compare to to make a conclusion. If not, we  
9 just have DNA. We -- the big question is who does that DNA  
10 belong to, and it's the known DNA that we can compare to say if  
11 they're consistent or not consistent.

12 Q. Okay. So back in 2010 were you asked to perform an  
13 analysis for incident no. 088525110?

14 A. Yes, ma'am.

15 Q. And can you tell me what items of evidence were  
16 presented to you for analysis?

17 A. Refer to my notes. See, we received, hmm, an  
18 envelope containing a DNA swab from a dime, which was item 5.1,  
19 and item 5.2, a second DNA swab from a dime.

20 We also received envelope containing known buccal  
21 swabs from Humberto Madrigal Morales, and also an envelope said  
22 to contain known buccal swabs from Seitrich Buckner. That was  
23 item 10.

24 Item 11 would be an envelope containing morgue  
25 evidence from Aidee Reyna, and within that morgue evidence kit,

1 there were several items within that kit.

2           Would you like me to go through those?

3           Q.    Yes.

4           A.    Okay.  11.1 was a bloodstained card from Aidee Reyna.  
5 11.2 was brown capped vials.  11.3, bags from hands.  11.4,  
6 fingernail scrapings and clippings from the right hand.  And  
7 11.5, fingernail scrapings and clippings from the left hand.

8           Q.    Okay.  Now, you mentioned that you had two known  
9 buccal swabs from Humberto Morales and from Seitrich Buckner;  
10 is that correct?

11          A.    Yes, ma'am.

12          Q.    What is a buccal swab?

13          A.    A buccal swab is -- it looks like a Q-tip.  There's a  
14 cotton end to it, and we take it and rub it along the cheek  
15 line and it collects buccal cells or cheek cells, and that is  
16 what we use for a known reference sample.

17          Q.    Okay.  So those were the two -- actually, how many  
18 known reference samples did you have in this -- in this case?

19          A.    We had three.  The known buccal swabs from Humberto,  
20 the known buccal swabs from Seitrich, and then the bloodstain  
21 card from Aidee Reyna, which also can serve as a reference  
22 sample.

23          Q.    Okay.  So with those reference samples, did you then  
24 compare them to the other pieces of evidence that you have  
25 mentioned?

1           A.    Well, certain items of evidence went on for DNA, and  
2 of those items, the profiles that were generated were compared  
3 then to the references.

4           Q.    Okay.  So let's talk about what items were analyzed  
5 for DNA.

6           A.    Just for DNA?

7           Q.    Yes.

8           A.    Okay.

9           Q.    Can you tell us the first item?

10          A.    That would be a portion of no. 5, DNA swab of a dime.  
11 That would be item 5.1.1.

12                   5.2.1 is a portion of no. 6 DNA swab from a dime.  
13 And the three references that we discussed before, as well as  
14 11.4.1.1, portion of swabs from the fingernail scrapings and  
15 clippings from the right hand.  And then 11.5.1.1, a portion of  
16 the fingernail clippings and scrapings swabbed from the left  
17 hand.

18          Q.    Okay.  So you were able to obtain DNA profiles from  
19 not only the known reference samples but also from these pieces  
20 of evidence?

21          A.    They went through DNA analysis, and I believe all  
22 generated a profile except for one item.

23          Q.    Okay.  So let's talk about what the results were when  
24 you were able to analyze those reference samples along with the  
25 pieces of evidence that you just described.



1 A. Okay.

2 Q. Starting with -- let's talk about evidence no. 5,  
3 which I believe was a dime; is that correct?

4 A. Swab from a dime.

5 Q. Okay. Were you able to get any results from that  
6 swab?

7 A. From 5.1.1, no, there was no DNA profile obtained.

8 Q. Okay. When you say that there were no DNA profile  
9 obtained, what exactly are you saying?

10 A. We did not get any results.

11 Q. Okay. Does that mean from the swab itself you did  
12 not get any DNA?

13 A. Yes. Part of our analysis is taking a cutting of the  
14 swab and processing that. From that cutting we did not get  
15 anything -- any result to see.

16 Q. Okay. How about evidence no. 6?

17 A. 6 would be the known buccal swabs of Humberto  
18 Morales, and we did get a profile from -- from that.

19 Q. I'm sorry, let me back up. I'm referring to evidence  
20 no. 6, which I believe is your item 5.2.

21 A. Oh, I'm sorry.

22 Q. No, that's my mistake.

23 So item 5.2, which was the DNA swab from the dime.

24 A. Yes.

25 Q. Evidence no. 6, a dime, were you able to obtain a

1 profile from that?

2 A. Yes.

3 Q. Okay. And then once you obtained a profile from that  
4 dime, did you then compare it to the known three reference  
5 samples?

6 A. Yes.

7 Q. And what were the results of that analysis?

8 A. A full female DNA profile was obtained from the swab  
9 of the dime, and Aidee Reyna cannot be excluded as contributor  
10 to that profile. The probability that a randomly chosen  
11 unrelated individual would be included as a possible  
12 contributor is approximately 1 in 11 sextillion for Caucasians,  
13 1 in 27 septillion for African-Americans, 1 in 2.6 quintillion  
14 for southeast Hispanics, and 1 in 12 sextillion for southwest  
15 Hispanics.

16 So to a reasonable degree of scientific certainty,  
17 Aidee Reyna is the source of this profile, excluding identical  
18 twins.

19 Humberto Morales and Seitrich Buckner are excluded as  
20 possible contributors to this profile.

21 Q. Okay. So their DNA was not located on that dime?

22 A. Correct. Their profiles were inconsistent with the  
23 profile that we obtained.

24 Q. Okay. Now, how about -- let me make sure I have your  
25 right number. I believe it's 11.4.1.1 and 11.5.1.1?

1 A. Yes.

2 Q. What are those -- what are those swabs?

3 A. 11 -- 11.4 was the swabs from the fingernail  
4 scrapings and clippings of the right hand, and 11.5 was a --  
5 the swabs of fingernail scrapings and clippings from the left  
6 hand.

7 Q. And the left and right hand of who?

8 A. Of Aidee Reyna. They were in her morgue kit.

9 Q. Okay. So did you compare those to the known  
10 reference samples that you had?

11 A. The profiles obtained, yes.

12 Q. Okay. And what were the results of that?

13 A. The same profile that was obtained from the item 6,  
14 DNA swab of the dime, was obtained in the fingernail scrapings  
15 right hand and left hand, so Aidee Reyna cannot be excluded  
16 from this -- the profiles obtained from those two items as.

17 Q. Okay.

18 A. And Humberto Morales and Seitrich Buckner are  
19 excluded as possible contributors to the profile.

20 Q. Okay. And were the numbers that you mentioned before  
21 when you were talking about the dime, are those same numbers  
22 associated with Aidee Reyna with the fingernail clippings?

23 A. The statistical significance, yes.

24 Q. So can you say with a degree of scientific certainty  
25 that those fingernail clippings belonged to or she was the

1 source of those fingernail clippings from the right and the  
2 left?

3 A. Yes.

4 Q. Okay. And your analysis tells you that you did not  
5 get a profile of Seitrich Buckner with those fingernail  
6 clippings?

7 A. No.

8 Q. Did I say that right?

9 A. He is excluded from the profiles, or the profile  
10 obtained from both the right and the left hand.

11 Q. Okay. So his DNA is not found in her fingernail  
12 clippings?

13 A. Correct.

14 Q. Okay. I want to talk to you a little bit about  
15 contact DNA. What is contact DNA?

16 A. Contact DNA refers to cellular material that is  
17 transferred from somebody to a surface or to -- it's a  
18 transfer. We don't have any tests currently that look for just  
19 the cellular material on an item, so we refer to it as contact,  
20 and that goes directly on to DNA analysis. We aren't able to  
21 screen for that.

22 But, for example, me touching the countertop, I've  
23 potentially just left my own cells on this countertop, and if I  
24 were to swab it, I might get some of my DNA because I may have  
25 transferred my cells onto there.

1 Q. Okay. And so if somebody -- if I were to touch you  
2 with my hands, is it possible that I would leave some of my DNA  
3 on you?

4 A. Possibly, uh-huh.

5 Q. Okay. If I were to scratch you with my nails, would  
6 I obtain some of your DNA underneath my fingernails?

7 A. There's potential, yes.

8 Q. How do the elements affect contact DNA?

9 A. Well, with contact, we're -- we're dealing with very  
10 minute amounts of DNA. It -- there's a lot of different  
11 factors that play into us getting a result. Obviously if the  
12 person is a, what we call heavy shedder, they -- I shed more  
13 cells touching something than somebody else would. If my palms  
14 are sweaty touching something, I might leave more DNA than  
15 somebody that's not. The surface that of which I touched, is  
16 it porous, is it slick, all these things play into the fact if  
17 DNA is transferred and stays on a particular item.

18 Q. Okay. Is it fair to say that if I were to scratch  
19 you with my fingernails, there would be a greater chance of  
20 your DNA staying underneath my fingernails than if I were to  
21 just touch you with my fingertips on your skin?

22 A. I -- I would be more likely if you scratched me, yes,  
23 than just touched me, yes.

24 MS. FULLER: Pass the witness.

25 THE COURT: Cross-examination.

## 1 CROSS-EXAMINATION

2 BY MS. SCARDINO:

3 Q. Well, just to make sure that we're all clear,  
4 Seित्रich Buckner's DNA was not on any of the -- either of the  
5 items that you tested; is that correct?

6 A. Correct.

7 Q. Thank you.

8 MS. SCARDINO: I'll pass the witness.

9 THE COURT: Thank you, ma'am.

10 May this witness be excused?

11 MS. FULLER: Yes, your Honor.

12 THE COURT: Thank you so much for coming. You're  
13 excused.

14 Call your next.

15 MR. REISS: The State of Texas would call Darrell  
16 Stein, your Honor.

17 May I proceed, your Honor?

18 THE COURT: You may.

19 MR. REISS: Thank you.

20 DARRELL STEIN,

21 having been duly sworn, testified as follows:

## 22 DIRECT EXAMINATION

23 BY MR. REISS:

24 Q. Mr. Stein, good afternoon.

25 A. Good afternoon.