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1
                              (The following proceedings were had
  2
                              after the recess:)
  3
                  THE COURT:
                              Call your next witness.
  4
                  MR. LIZARRAGA:
                                  Call Glen Adams to the stand,
 5
      please.
 6
                               GLEN DAVID ADAMS,
      called as a witness for the State, after first being duly
 7
 8
      sworn by the Court, testified as follows:
 9
                               DIRECT EXAMINATION
10
            BY MR. LIZARRAGA:
11
            Will you state your full name for the record, please?
      Q.
12
      Α.
            Glen David Adams.
13
            And how are you employed, Mr. Adams?
      Q.
14
      Α.
            For the Department of Public Safety.
15
            And were are you presently assigned to, what location?
     Q.
16
     Α.
            I work in Lubbock, Texas, in the crime laboratory.
17
            Where were you this morning when you got up?
     Q.
18
            I was in Lubbock, Texas.
     Α.
19
     Q.
           What time did you arrive here in El Paso?
20
           I think it was about 8:05 El Paso time.
     Α.
21
           Okay. What is your job in Lubbock, Texas, with the
     Q.
22
     Texas Department of Public Safety?
23
     Α.
           I was work as a chemist and serologist.
24
     Q.
           And what is a serologist?
25
           A serologist is a person who studies blood serums,
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- 1 basically to determine the quantity and component of blood
- 2 such as antibodies, proteins, enzymes, and things like that.
- Q. Okay. What kind of practical application does a serolo-
- 4 gist promote outside of the forensic field, outside of police,
- 5 | law enforcement people? Are there any serologists here in
- 6 town, in our hospitals?
- 7 A. Yes, there are.
- **8** | Q. What do they do there?
- 9 A. Probably do things like testing for antibodies for the
- 10 detection of antigens on red blood cells, to do ABO typing,
- 11 and other select typings, and also things like mononucleosis,
- 12 | and other tests like that.
- 13 Q. A person that's going to get a blood transfusion, does
- 14 | a serologist probably babble in that process?
- 15 A. What they actually call them, the method is part of
- 16 | serology, but that's what an immunohymothologist would
- 17 | actually be doing.
- 18 Q. Fair enough. In the police-law enforcement or in the
- 19 | forensic field, what is your job as a serologist?
- 20 A. Well, basically, my job is for blood typing, which
- 21 | are involved with criminal cases such as sexual assault
- cases, murder cases, burglaries, things like that.
- Q. Okay. Does that mean that working for the DPS out of
- 24 Lubbock, if there's a murder or a sexual assault you are
- 25 | flown in to El Paso to investigate the scene or anything like

1 | that?

- 2 A. No, it's not.
- Q. Okay, what do you do?
- 4 A. Basically, what the Department of Public Safety consists
- 5 of is law enforcement officials who have been trained to
- 6 collect evidence, collect all of the evidence, and if it
- 7 | involves blood samples, we usually go to a hospital personnel
- 8 who collects the samples and then those samples are sent to
- 9 us at the Department of Public Safety for analysis.
- 10 | Q. Okay: Would it be fair to say, just as an analogy, that
- 11 | you are sort like the FBI of Texas providing these types of
- 12 | services for law enforcement?
- 13 A. Right, correct.
- Q. Okay. You did mention about sexual assaults. In a
- 15 sexual assault case, what would you typically do as a sero-
- **16** | logist?
- 17 A. Well, as a serologist, to prove certain things, we go
- 18 through all of the evidence that they submit, and usually
- 19 | they submit blood samples, hair samples, saliva samples,
- 20 the victim's clothing, and things of that nature, and what
- 21 | we go through and we try to do is to find on any of the
- victim's clothing any semen samples or from her vaginal
- 23 | slides, vaginal swabs, anything like that, evidence of semen
- 24 being present or blood on some of these items, and then what
- 25 we try to do is to match those up with either the victim or

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the suspect to either eliminate or include the possibility
that the suspect could be involved.

And eliminate and include is basically what it's all
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- Q. And eliminate and include is basically what it's all about, is that right?
- 5 A. Right.

4

Q. And there's a word on here, I think we'll make it just
for identification purposes as State's Exhibit No. 21.

8 THE COURT: No, I think that should be 42.

- 9 MR. LIZARRAGA: Right, it should be 42. I'll make 10 it State's Exhibit no. 42.
- Q. And it's got a title: "DPS Special Assault Analysis."

  In all fairness, your job is not to take it in and say, "A
- particular individual did something," but, rather, like you
- 14 | said, to include or eliminate that person from a group?
- 15 A. Right.
- Q. Okay. So, with this DPS sexual analysis, can you tell
  us right now that you won't be testifying as to whom committed
  what in this case?
- 19 A. Correct, I will not.
- Q. Did you complete a report on an analysis that you
  worked on in this particular case, that being Dana Mocherman
  and Brandon Moon?
- 23 A. Actually, the report --
- **24** Q. Were you a part to that report?
- **25** A. Yes, I was.

- 1 | Q. And is it dated November 17th, 1987?
- 2 A. Yes, it is.
- 3 | Q. Is it two pages long?
- 4 A. Yes, it is.
- 5 | Q. I hand you what's been marked as State's Exhibit No.
- 6 28. Will you please compare the copy that I've just given 7 you with what you have in your file.
- 8 A. Yes, they are the same.
- 9 | Q. Let me have it so that I can ask you some questions.
- 10 Typically, when you receive -- Do you know what a rape kit is?
- 11 A. Yes, I do.
- 12 | Q. Okay, do you get those in the laboratory?
- 13 A. Frequently.
- 14 Q. All right. And when you get all these separate compo-
- 15 nents you get blood, you get swabs, you get hair. What is
- 16 | it that you do, for example, with the blood of a victim?
- 17 A. Well, on any blood sample, we go ahead and type for ABO
- and the Lewis, which is a screen status thing, and at that
- point we wouldn't do any further testing until we have the
- 20 suspect's samples to compare it to.
- Q. Okay. And let's say you get suspect's samples of the
- same things, the swab, the blood, the hair.
- A. We go ahead and type that blood also -- Let me do it
- 24 this way.
- 25 Q. Go ahead.

- 1 A. When we usually get the rape kit in we go through the
- 2 | kit and check it for all the items, do the blood sample, type
- 3 | the sample, and do a preliminary check for semen on all the
- 4 other items, like the vaginal swabs and the vaginal slides.
- 5 | Then when we receive a suspect's sample we go ahead and type
- 6 | the suspect's blood to see if they have the same types, and
- 7 then do further testing on the suspect's blood and saliva
- 8 | samples, hair samples, and make a comparison.
- 9 | Q. Okay. And you might compare some of your findings from
- 10 known group, the blood group or the secretor-nonsecretor
- 11 status with items that are unknown. You don't know where they
- 12 | originated from.
- 13 A. Right.
- 14 Q. In this case, looking at State's Exhibit No. 42, you
- 15 received a sample you would blood-type it?
- **16** A. Right.
- 17 | Q. You said an ABO where you get the blood types?
- 18 A. Right. That's the blood group system.
- 19 Q. And then you would determine secretor-nonsecretor?
- **20** A. Right.
- 21 Q. And there are different ways to determine that?
- 22 A. That's correct.
- Q. Okay. And as to the secretor-nonsecretor, is a fair
- 24 generally accepted percentage, would that be 85 percent of
- 25 | the population secretor and 15 percent nonsecretor?

- 1 A. That's correct.
- Q. And then you do certain tests with -- semen tests?
- 3 A. Right.
- 4 Q. And sperm tests?
- 5 A. Right.
- 6 Q. Okay. If I group it all into one you can call it semen
- 7 or sperm?
- 8 A. Right.
- Q. Let's say that you have an unknown. Let's say you have
- an item that there may have been some semen detected on it.
- 11 Can you confirm that there was semen?
- 12 | A. Yes, sir, we can.
- Q. Okay. There was a preliminary detection, say, with one
- 14 of the lamps. What do you call them? When do they call the
- 15 | lamps?
- 16 A. The lamps?
- Q. Is there such a test that you put a florescent light
- and if there is semen it has a certain color?
- 19 A. Well, we don't do that testing. What we do, there are
- 20 ways of detecting the seminal stains without laser lights
- 21 and things of that nature. What we do is go through and by
- visual means and by the use of what we call a azophosphate
- spot test, go through and just go over every inch of the
- clothing until we find a stain.
- Q. Okay. Is this something that would have been done in

- 1 | a sexual assault case, the azophosphate test?
- 2 A. Azophosphate. Yes, it is.
- 3 | Q. And is that a generally accepted test for determining
- **4** where there is semen present?
- 5 | A. Correct.
- 6 | Q. Let's just say that you got a robe or a comforter with
- 7 | suspected semen.
- 8 A. Okay.
- Q. What do you do when you get that?
- 10 | A. Well, okay, if my presumptive test was positive, we
- 11 go ahead and do other tests, what we call a P30 test, which
- 12 | is a semen specific protein that we look for on the stain,
- 13 | and if that's positive we know that there is semen there.
- 14 | Q. Okay. Was this done in this particular case?
- **15** | A. Yes, it was.
- 16 | Q. What was that test done on it?
- 17 A. It was done on -- the P30 test was done on item number
- 18 4, the comforter.
- 19 Q. Okay. And what else?
- 20 A. Okay. On some of the other items a P30 was not done
- 21 to confirm the presence of semen. What we did on the other
- 22 items, which are the vaginal swabs, the dark blue bathrobe,
- and it was also done on the comforter.
- 24 Q. Okay.
- A. We looked for what we call spermatozoa, which are sperm

- 1 | Q. So you look for spermatozoa first and if you find it
- 2 | then there's no need to do a P30, is that right?
- 3 A. Right.
- 4 Q. -And if you don't find it and you do the P30 then you
- 5 can determine that there was semen?
- 6 A. Right.
- 7 | Q. Okay. Was a test done on the bathrobe for semen?
- 8 | A. On the bathrobe?
- **9** Q. Yes.
- 10 A. Yes, it was.
- 11 | Q. All right. What was the result of that test, did you
- 12 | find any or not?
- 13 A. Yes, we did, it was positive.
- 14 | Q. Okay. So on the bathrobe would it be fair to put on
- 15 | here "Yes"?
- 16 A. Yes.
- 17 Q. State's Exhibit 42. Okay. On the comforter?
- 18 A. On the comforter we found spermatozoa and P30 and it
- 19 would be positive to say that there was semen.
- Q. Okay. So it would be fair to put "Yes" under the
- 21 | sperm-semen on the comforter?
- 22 A. Yes.
- 23 | Q. You said there were two swabs?
- 24 A. Right. There were two swabs that were received and
- 25 both of them had semen on them.

- 1 | Q. Both of those swabs were received with the rape kit
- 2 from the items taken from the alleged victim's person.
- 3 A. Right.
- 4 Q. Okay. One of the swabs was identified as coming from
- 5 | the vaginal?
- 6 A. Right.
- **7** | Q. And the other swab?
- 8 A. It was unmarked.
- Q. Was there a test for semen on the vaginal swab?
- **10** A. Yes.
- 11 Q. And what was the result of that?
- 12 A. That there was semen there.
- 13 | Q. And for the unmarked swab, was a test for semen run?
- 14 A. Yes.
- 15 | Q. And what was the result of that?
- 16 A. There was semen there.
- Q. Okay. So, basically, given that the swabs were taken
- 18 from a female, if you run these tests on the swabs, you can
- 19 | say that it was male semen on there?
- 20 A. Correct.
- Q. And if there were any secretions on the comforter that
- 22 | included those of a female, given the result of the semen-
- 23 sperm test, you would conclude that there was also male
- 24 substances on there?
- 25 A. Correct.

- 1 | Q. And the same for the bathrobe, there were stains or
- 2 there was presence of semen or sperm on the bathrobe, you
- 3 | would conclude that even if they were mixed with vaginal
- 4 secretions there was some male deposits?
- 5 A. Right.
- 6 | Q. Okay. And then you had your known items, those being
- 7 | the blood types of the individuals whose blood was submitted
- 8 to DPS, is that correct?
- 9 A. Correct.
- 10 | Q. Okay: Now, the complaining witness or the victim in
- 11 the case, if her name were Dana Mocherman, do you have a
- 12 | listing there for submissions of the victim?
- 13 | A. Yes, I do.
- 14 | Q. Okay. Was her blood typed?
- 15 A. Yes, it was.
- 16 | Q. What was her blood type?
- 17 A. She  $\overline{\pm}$ s a blood type A.
- 18 | Q. Okay. And did you have any submissions for her spouse?
- 19 A. Yes, I did.
- Q. What was his blood type?
- 21  $\mid$  A. His blood type was also A.
- Q. Okay. And were there any submissions from the victim's
- 23 | son?
- 24 A. Yes, there was.
- 25 | Q. And what was his blood type?

- 1 A. His blood type was O.
- 2 | Q. And you have a child from an O blood type?
- 3 A. Yes, you can.
- 4 Q. Okay. And was Brandon Moon's blood, the suspect, also
- 5 | typed?
- 6 A. Yes, it was.
- **7** | Q. And was that blood type?
- 8 A. His blood type is O.
- 9 | Q. Okay. Now, blood typing would not apply for the
- 10 seminals, the secretions on the bathrobe, the comforter or
- 11 | the swabs, is that correct?
- 12 A. Correct.
- 13 | Q. So would it be fair to put -- it's a "No", it doesn't
- 14 | apply, is that correct?
- 15 | A. Right.
- 16 | Q. Determination of secretor-nonsecretor status, was that
- 17 | done?
- 18 A. Yes, it was.
- 19 | Q. And were you able to do that from the semen samples
- 20 | that were drawn?
- **21** A. Yes, I was.
- 22 | Q. And was that done with any of the semen that was
- 23 extracted from the bathrobe?
- **24** A. Yes, it was.
- 25 | Q. All right. And what secretor-nonsecretor status did

- 1 | that have?
- 2 A. We found no blood group substances to make a nonsecretor.
- Q. Nonsecretor? Okay. So from the semen on the bathrobe
- 4 you got a determination of nonsecretor. Would it be fair to
- 5 | label it that way on State's Exhibit 42?
- 6 | A. Yes, it would.
- 7 | Q. Okay. And on the comforter, the bedspread, were you
- 8 able to make a determination of secretor-nonsecretor status
- 9 based on the sample of sperm and semen that you had?
- 10 A. Yes, I was.
- 11 Q. And what was the status?
- 12 A. Nonsecretor.
- 13 | Q. All right. And it was on the basis of the sperm-semen
- 14 on the comforter?
- 15 A. Correct.
- 16 | Q. Would it be fair to label that in the manner that I am
- 17 | labeling it on State's Exhibit 42?
- 18 A. Correct.
- 19 | Q. All right. And from the swab, the vaginal swab that
- 20 was taken from Dana Mocherman in which sperm received was
- 21 tested, was there enough of that sperm-semen substance to
- make a determination of secretor-nonsecretor?
- 23 A. Yes, there was.
- Q. Okay. And what was that determination?
- 25 A. Nonsecretor.

- 1 Q. Nonsecretor? Okay. So would it be fair to label it
  2 the way I have it on State's Exhibit 42?
- $3 \mid A$ . Yes, it would.
- Q. Okay. On the unmarked swab on Dana Mocherman in which
- 5 sperm or semen substances were found, were they found in
- 6 enough volume to be able to make a determination of secretor-
- 7 nonsecretor status?
- A. I called that one inconclusive because the amount ofsemen was too low to determine.
- Q. Okay. And going to your known subjects, was a determination of Dana Mocherman's secretor or nonsecretor status
- 12 | made?
- 13 A. Yes, it was.
- Q. Okay, and was it made on the basis of her -- What
- 15 | fluids from her body?
- 16 A. They were made on the basis of both her blood sample
- and a saliva sample.
- Q. Okay. Which would you consider more accurate?
- 19 A. The saliva sample.
- Q. Saliva? Okay. What was that, were they both the same
- 21 determination?
- 22 A. Yes.
- Q. And was she a secretor or nonsecretor?
- 24 A. She is a secretor.
- 25 | Q. And what about her spouse, Reid Mocherman?

- 1 | A. He is also a secretor.
- **2** | Q. And what about Chris Mocherman, her son?
- $3 \mid A$ . Again, he is a secretor.
- 4 | Q. And, finally, was a determination of the secretor-
- 5 | nonsecretor status made of Brandon Moon?
- 6 A. Yes, it was.
- 7 | Q. And what is he?
- 8 A. He's a nonsecretor.
- 9 | Q. Now, on Brandon Moon, was that determination made on
- 10 the basis of his blood or saliva?
- 11 A. It was made on the basis on his blood sample and semen
- 12 | sample that we received from him.
- Q. So you also got a semen sample?
- 14 A. Yes.
- 15 | Q. That wasn't detected -- I'll put it in parenthesis --
- 16 It wasn't detected in the manner that these other ones were?
- 17 A. Correct.
- 18 | Q. You got a sample?
- 19 A. A known sample.
- Q. Okay. Were any semen samples taken from Dana Mocher-
- 21 man's spouse or her son?
- 22 | A. No, there weren't.
- 23 | Q. And none were taken from her?
- 24 A. No.
- Q. Mr. Adams, I need to ask you some questions about these

- 1 tests and about your results. The kind of tests that you
- 2 | run you said that you made a determination on saliva and
- 3 | blood?
- 4 A. That's correct.
- 5 | Q. And you said that the saliva would be more accurate?
- 6 A. Correct.
- **7** Q. Why?
- 8 A. What we're testing for is the ability to secrete into
- 9 your body fluids, so, naturally, if you test body fluids
- 10 themselves other than blood and get positive results for
- 11 | secretor status or nonsecretor status, then obviously that
- 12 | is, you know, where everything lies.
- 13 | Q. Okay. And you mentioned that there two particular
- 14 tests that were done to determine the status. You mentioned
- 15 | the Lewis typing?
- 16 A. Correct.
- 17 Q. And what is the other one?
- 18 A. It's called an absorption inhibition.
- 19 Q. Are these two tests, they both tell you the same thing?
- 20 A. Correct.
- 21 | Q. They are just different methods?
- 22 A. Right.
- 23 | Q. Or they are different things that you look at?
- 24 A. Right.
- 25 Q. Why do you run both tests?

In the case of the Lewis testing; the Lewis antibodies which are on the surface of the red cells are adsorbed on to the cells after birth. When cells are born, you know, they are not on the cell yet, they come from the blood itself and then they are placed on the surface of the cells. Now, when you take the blood out of the body and put into a tube and let it set for one or two days or a week or so, the antibodies tend to fall off and they may not be detected, and that's why you get your -- there's Lewis A's and Lewis B's and sometimes you will get no results at all from your Lewis. So, in those instances a certain percentage of those people are nonsecretors and a certain percentage of those people are secretors that you can't detect, so you go to the saliva or the semen or urine whatever the body fluid that it is you're looking for or you want to test and do the absorption inhibition test and you will get definite answers from that.

- 17 | Q. Which of these two tests are more accurate?
- 18 A. More accurate?

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- 19 Q. Or is there such a thing?
- A. They are both very accurate tests as long as, like I said, the blood samples are fresh, but a lot of times we receive blood samples that are not fresh, so we always back-up our information with an absorption inhibition test.
- Q. What would interfere with that kind of a test?
- 25 A. The absorption inhabition test?

- 1 Q. Yes.
- A. On a saliva test, unknown saliva sample, nothing. I
- $oldsymbol{3}$  mean, aside from procedural errors on my part which we safe-
- 4 | guard against.
- 5 Q. Given the secretor-nonsecretor status for the unknown
- 6 swab, the one that was unmarked, which is the last one on
- 7 | State's Exhibit 42, where it says "Inconclusive"?
- **8** | A. Yes.
- 9 | Q. You said there wasn't enough of a sample?
- 10 A. Right. You know, unknown samples, samples that
- 11 may have been so deluded that we were just unable to detect
- 12 | substance in the saliva, or the semen, if it was greatly de-
- 13 | luded. They would have to be extremely deluded.
- Q. Okay. If you've got a vaginal swab and it appears you
- 15 don't have enough to make that kind of a determination, would
- 16 | it be consistent if the other swab was, for example, it
- 17 wasn't swambed correctly or wasn't swabbed enough, could
- 18 | that problem arise?
- 19 A. Certainly.
- Q. How do you know if you have enough or don't have
- 21 enough?
- 22 A. We do quantitation tests, either you can quantitate
- 23 the acid phosphatase, which is a component of semen, or you
- 24 can quantitate the P30, which is also a component of semen.
- 25 | Q. Otherwise you don't get a result?

- 1 A. Right, right.
  - Q. Which is what happened on that one that was inconclusive?
- 3 A. Right.

2

- 4 | Q. \_ If there was a mixture -- well, let's say you have a
- 5 | vaginal fluid where a man had orgasm into it; so there's a
- 6 | mixture of vaginal with sperm.
- $7 \mid A$ . That's right.
- Q. And the subject from which the vaginal secretions came from was a secretor.
- 10 A. Okay.
- 11 | Q. If you ran a test on a mixture of those two and you
- came up with a nonsecretor result, what would you conclude
- 13 | from the sperm or the semen?
- 14 A. That the semen was most likely deposited by a non15 secretor.
- Q. Okay. If they mixed in with each other, is there some sort of a chemical reaction where that would affect the test?
- A. No. Blood group substances from one individual to the next are basically the same as far as the structure of the substance, but mixing them together would only make a mixture of the different substances, and they have no affect on each other.
  - MR. LIZARRAGA: Your Honor, at this time I would like to offer State's Exhibit No. 28.

THE COURT: Counsel?

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1
                 MR. GARNEY:
                               I have no objections to State's
 2
      Exhibit 28.
 3
                 THE COURT:
                              It will be received.
 4
                             (WHEREUPON, State's Exhibit No. 28,
                             previously marked as SX-28 for identi-
 5
                             fication, was received into evidence.)
                 MR. LIZARRAGA:
                                  Pass the witness.
 7
                          CROSS-EXAMINATION
 8
            BY MR. GARNEY:
           Mr. Adams, my name is Norbert Garney; I am representing
 9
     Q.
10
     Mr. Moon in these proceedings. We may have spoken on the
11
     phone, have we not?
12
           Yes, we have.
     Α.
13
           I knew I had spoken to either you or Mr. Mayham and
     Q.
14
     perhaps both.
15
           I believe it was both of us.
16
           And I believe we spoke a couple of days ago, maybe last
     week sometime?
17
18
     Α.
           Yes, it was.
19
           At which time we had discussed some of these lab reports
     Q.
20
     of which you are testifying today.
21
     Α.
           Correct.
22
           Now, Mr. Adams, I believe you previously testified
23
     that it's not your job to determine who actually sexually
24
    assaulted a young lady, is it?
25
           Correct.
     Α.
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- 1 | Q. And, as a matter of fact, as a result of all your con-
- 2 clusions here, in all your testimony and all your charts, you
- 3 | still can't testify to that, can you?
- 4 A. No, I cannot.
- **5** Q. The reason is because nothing that you come up with so
- 6 | far is conclusive, is it not?
- 7 A. Yes; some of the results that I've come up with are con-
- 8 clusive in the fact that my testing results of A, B and O and
- 9 the secretor status are conclusive.
- 10 | Q. I understand that. Let me rephrase my question. All
- 11 the tests that you ran are not conclusive as to the identity
- 12 of Mr. Moon, are they?
- 13 | A. Correct.
- 14 Q. There's no way that you can testify from all the
- 15 | examinations that you ran and the conclusions that you come
- 16 to and that were written on that chart, that Mr. Moon sexually
- 17 | assaulted Dana Mocherman?
- 18 A. Correct.
- 19 | Q. In fact, to be fair, the very best you can do is place
- 20 | him in a pool of potential subjects?
- 21 A. Correct.
- 22 | Q. And some pools are larger than others?
- 23 A. Correct.
- Q. Some are smaller than others?
- 25 A. Correct.

- Q. But you have certainly not eliminated everyone else in a particular pool?
- A. That's absolutely correct.
- 4 | Q. Through the use of any chemical analysis whatsoever?
- 5 A. Correct.
- Q. Now, I do have a couple of questions about the Lewis
   typing test. You said there are type A and type B results.
- 8 A. Right.

- Q. Will you explain to the jury what that means?
- 10 What we have are antibodies that have been developed Α. 11 by chemical companies which will attach to the surface of 12 cells, in different combinations, depending on what actually 13 exists on the surface of those cells. If that person is a 14 Lewis A-positive, then we will get a good group with the A, 15 and if that Lewis person is B-positive, we will get a good 16 group with the B-positive cells. The combinations that you
- get are A-positive, B-negative, A-positive, B-positive, or
- A-negative, B-negative, things like that.
- Q. Let's put that in layman's terms. If I am an A-positive on the Lewis, what does that mean?
- A. That's more than likely is going to mean that you're a nonsecretor.
- Q. All right. And if I am a type B on the Lewis?
- A. Type B. It depends on what your A is. If you're an A-positive, B-negative, you're going to be a nonsecretor.

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oldsymbol{1} Q. Now, that is the exam that you ran on -- Was that the
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- 2 | blood of Branon Moon?
- 3 A. Correct.
- 4 | Q. In the Lewis examinations, you run on blood alone?
- $\mathbf{5} \mid \mathsf{A}.$  On whole blood samples.
- 6 | Q. You don't run that on semen samples?
- $7 \mid A$ . No, we do not.
- 8 Q. Okay. Now, was the Lewis run on the sample of Mr. Moon?
- 9 A. Yes, it was.
- 10 | Q. And what was the result of that?
- 11 | A. We got an A-positive and B-negative.
- 12 | Q. And that means that Mr. Moon is a nonsecretor?
- 13 A. Correct.
- Q. Now, is there an accuracy variability or standard of deviation in those particular exams?
- 16 A. In the Lewis typing?
- 17 Q. Yes, sir.
- A. If there is an error rate it's because of what I did,
- possibly, but we have safeguards or controls that we run to
- 20 protect against that sort of thing. So there is more than
- 21 likely no error. Like I said, the only possible thing that
- could go wrong with that is the blood sample was too old to
- 23 detect on the Lewis.
- Q. How old or how fresh should a blood sample be for an accurate reading?

- 1 A. It should be tested within two weeks, because there are
- 2 two methods, they are slide methods, which can detect it, but
- 3 DPS's policy is to not let them go more than a week.
- 4 Q. When was Mr. Moon's blood tested for the Lewis exam?
- 5 A. That was tested on 5-18-87.
- 6 | Q. Some four days after submission?
- 7 A. Right.
- 8 Q. Now, did you perform an examination on the semen of Mr.
- 9 | Moon to determine whether he's a secretor or nonsecretor?
- 10 A. Yes, we did.
- 11 Q. And what was the result of that particular examination?
- 12 A. On his semen we got a test that's called an "inhibition
- test," and we got no inhibition, so that means he's a non-
- 14 secretor.
- Q. Could you explain that, because it sounds almost reverse?
- 16 | If there's no inhibition, logically you would expect a secre-
- 17 | tor. Perhaps there's a language problem.
- 18 A. Right. If there is inhibition, that means that the
- 19 | test is positive for blood group substances in that fluid,
- which makes that person a secretor.
- Q. Now, I believe you also give the nonsecretor-secretor
- tests on substances from the persons of Reid Mocherman and
- 23 | Chris Mocherman.
- 24 A. Yes, we did.
- 25 | Q. And that substance was blood for both subjects?

+)

- 1 | A. It was blood and saliva.
- 2 | Q. You didn't test the semen of either subject?
- $3 \mid A$ . No, we did not.
- 4 Q. All right. And you found both tests with blood and
- 5 | saliva of Reid and Chris Mocherman being secretors?
- 6 A. Correct.
- Q. Were any other examinations performed besides the typ-
- 8 | ing and the secretor-nonsecretor determinations?
- 9 A. Yes; some samples were sent to Midland for enzyme
- 10 analysis.
- 11 | Q. Well, I'm talking about what you did personally in your
- 12 | lab.
- 13 A. No, there were not.
- Q. Okay. No comparisons were done from any other --
- 15 | A. Well, there were hair comparisons, but they were not
- 16 done by me.
- Q. Okay Were they done by someone in your lab?
- 18 A. Right, they were done by Mr. David Mayham.
- 19 | Q. And they are included in this report?
- 20 A. Correct.
- 21 | Q. That is State's Exhibit No. 28?
- 22 A. Correct.
- Q. And what were the results of those hair comparisons?
- 24 A. Hairs that were found in this case were not similar
- 25 | to the suspect's hair.

- 1 | Q. Let's clarify that. They were not similar?
- 2 A. They were not similar.
- Q. Now, where were hairs found on the particular items
- 4 | that were given to you?
- 5 A. Hairs were recovered from a dark blue bathrobe, the
- 6 | peach comforter.
- Q. By the way, were you sent the bathrobe to the lab?
- 8 A. Yes, all the stuff was brought in. You mean, was it
- 9 sent by mail or --
- 10 | Q. That doesn't matter. Did you examine that bathrobe
- 11 | yourself?
- 12 | A. No, I did not examine the bathrobe myself.
- Q. But it was received at your lab?
- 14 A. Yes, it was.
- 15 | Q. Now, there were holes cut out of it. Did you receive
- 16 | it in patches or did you receive the whole thing?
- 17 A. The whole thing, the items were cut out.
- 18 | Q. Do you have the samples of the hair with you?
- 19 A. The samples of the hair? I do not have them with me;
- 20 | they were sent back to the submitting official.
- Q. Okay, they were sent back to the District Attorney's
- 22 | office in El Paso County?
- A. Yes, they should have the samples.
- Q. Now, you know, this study doesn't say much. It says,
- 25 | "No hairs found on bathrobe (No. 3) or comforter (No. 4) are

- 1 similar to the suspect's known hair." I assume we're talking about Mr. Moon when you're talking about suspect? 2
- 3 Α. Correct.
  - In what way were they dissimilar? Q.
- 5 Well, what David does is he takes all the hair samples Α. that he's collected from any other items of the victim's 6 clothing and tries to match those up with the known samples 7 of the suspect. And he visually looks at them for color and 8 9 to see if they are Negroid, Mongoloid, or whatever, and then if it warrants any further testing to look at them under what 10 we call a stereoscope which magnifies about 50 times, and he 11 12 compares the color and other things like that and scales and 13 things like that on the surface of the hairs.
  - And assuming that characteristics match, you can narrow down your suspect pool rather impressively, can you not?
  - Well, the only determination you can make in hair analysis is that those hairs could have come from the sus-There's no percentages as far as what pool of people he could belong to, except for like Negroid or Mongoloid,
- 20 like that.

Α.

14

15

**16** 

17

18

- 21 Q. To be clear as to the other determination you can make, 22 that they could not have come from the suspect.
- 23 Α. That's correct.
- 24 In fact, that's the determination you make in your 25 report?

- 1 A. Correct.
- Q. So the hairs you examined on Ms. Mocherman's robe and
- on the comforter could not have come from that man, Mr. Moon?
- 4 A. Correct.
- 5 | Q. Those hairs were submitted by the El Paso District
- 6 Attorney's office for you to examine or someone in your parti-
- 7 | cular laboratory?
- 8 A. Correct.
- 9 | Q. And out of your duty to do so that's what you all do?
- 10 A. Correct.
- 11 | Q. Now, you received as part of your samples the known
- 12 | head hairs from Ms. Mocherman, did you not?
- 13 A. Yes, we did.
- Q. You also received, as part of your samples, the known
- 15 | pubic hairs of Ms. Mocherman, did you not?
- **16** A. Yes, we did.
- 17 | Q. Were the suspect hairs compared to those two samples?
- 18 A. No, they were not.
- 19 | Q. It seems like they should've been to find out if you
- 20 had the same sample, is that right?
- A. No, it's not our policy to pursue that. If the sus-
- pect's hair do not match the hairs that we find, the known
- 23 hairs that we find, then there's no need to go through and
- 24 determine whether they were similar to the victim, because
- 25 | the work case would be phenomenal to do it that way, and

```
1
      since there's no need to do that since the suspect had already
  2
      been eliminated from those hairs.
  3
            Now, in order to be fair, let's assume for a moment that
  4
      the hair samples which you examined do not match Ms. Mocherman,
  5
      do not match Reid Mocherman, and do not match Chris Mocherman,
  6
      then they must come from somebody else. Is that a fair state-
  7
     ment to make?
  8
           They must come from somebody else? Correct.
     Α.
  9
            I mean, that's only logical. And since we determined
     Q.
 10
     conclusively that they didn't come from Mr. Moon, they must
11
     have come from somebody else? Isn't that fair?
12
     Α.
           Correct.
13
           Which means that there could've been a fourth party that
14
     we don't even know about?
15
                MR. LIZARRAGA: Objection, calls for speculation.
16
                THE COURT:
                            Overrule the objection.
17
           Just a logical extension of what you testified.
     Q.
18
     Α.
           Correct.
19
                MR. GARNEY:
                             I pass the witness.
20
                THE COURT:
                            Counsel.
21
                          REDIRECT EXAMINATION
22
           BY MR. LIZARRAGA:
23
    Q.
          Does the DPS do DNA analysis?
24
    Α.
          No, we do not.
25
    Q.
          Does the FBI do it?
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- 1 A. No, they not do it. They are currently working on a
- 2 | procedure to get that organized here in the United States,
- 3 but mostly that's something that the British, who are leaders
- 4 in the forensic field, are working on.
- 5 | Q. It's still in the pioneer stages then?
- **6** A. Yes, it is.
- 7 Q. Just to clarify some things, Mr. Adams, the secretor-
- 8 | nonsecretor status that you got for Dana Mocherman was from
- 9 her saliva and her blood?
- 10 A. Correct.
- 11 | Q. Okay. And the secretor-nonsecretor status that you got
- 12 | for her spouse was taken from what?
- 13 A. His blood and saliva.
- 14 | Q. And the secretor-nonsecretor status for her son?
- 15 A. It was taken from his blood and saliva.
- 16 Q. Okay. And the nonsecretor status determination made
- 17 for Brandon Moon was taken from his sperm and from where else?
- 18 A. His blood sample.
- 19 | Q. Okay. And then, of course, the bathrobe, comforter
- 20 and the swabs were, as you already indicated, from sperm-
- 21 | semen samples only?
- 22 A. Correct.
- Q. There were hairs found on the bathrobe, is that correct?
- 24 A. Correct.
- 25 | Q. All right. And what was done with the hairs from the

- 1 bathrobe, what were they compared to?
- A. They were compared to the suspect's known hair, head
- 3 hair, and pubic hair.
- 4 Q. To see if they matched?
- 5 A. Correct.
- 6 Q. Would that be consistent with the suspect never having
- 7 | touched the bathrobe or worn it?
- 8 A. No. I mean, just because he touched an item of cloth-
- 9 | ing or other items, doesn't mean they're going to be positive.
- 10 | Q. Okay. What can you say on the bathrobe -- All you can
- 11 | say is that the hairs didn't match?
- 12 A. Correct.
- 13 | Q. It doesn't mean anything either way as far as -- a
- 14 person could still wear a bathrobe and there might not be
- 15 hairs.
- 16 A. Correct.
- 17 | Q. All Fight. Would there be any hairs if they were wear-
- 18 | ing a cap?
- 19 A. That would greatly reduce the chances of hair being
- 20 deposited.
- Q. Okay. Now on the hairs on the comforter were compared
- 22 to what? Whose hair?
- 23 A. The comforter?
- 24 Q. Yeah.
- 25 A. It was also compared to the suspect's hair.

- Q. So, the only way that you would do any further checking, under the circumstances that you understood this case to have
- would be if there was a positive match?
- 4 A. Right. If the hair were similar to the suspect's hair,
- 5 then we go ahead and do a full analysis of those hairs with
- 6 | the victim's hairs and possibly with anyone else who was
- 7 involved.
- 8 | Q. Okay. So, if a person was wearing a cap while he was
- 9 | in the comforter, would you necessarily have hairs of that
- 10 | person?
- 11 A. Not necessarily.
- 12 | Q. Would you likely not have hairs?
- 13 A. Not head hairs, anyway.
- 14 | Q. Okay. And were there any other hairs submitted that
- 15 | were compared?
- 16 A. There were hairs from the suspect and the victim.
- 17 Q. Okay. Were the vaginal hairs compared?
- 18 A. The pubic hairs? Yes, they were also compared.
- 19 | Q. Okay.
- 20 A. And they were found to be different.
- Q. The only way that they would match up was if the person
- 22 | who -- the only way, for example, that hairs taken from the
- victim's crotch area would match up was if the person who
- 24 | had contact with her had left the hair, is that correct?
- 25 A. Correct.

- 1 Q. So, the hairs that were submitted from the victim and the suspect, nothing matched up? 2 3
  - Α. Correct.
- What does that mean? Q.
- 5 It just means that the hairs did not match, the hairs Α. did not match the suspect's hairs; the hairs that are 6 collected from an individual are usually done with what we 7 8 call a comb and just comb through, so combing through the hairs could -- I mean, the comb may just naturally snag a 9 10 few and pick up a few and that could be what we analyze.
- 11 Okay. And whether a person is a secretor or nonsecretor that puts them in a particular gene pool, the fact that there 12 are no comparisons, does that put either the victim or the 13
- 14 Defendant in any particular type of pool?
- 15 With the hairs, you mean? Α.
- 16 Q. Yeah.
- 17 No, It does not.
- 18 MR. LIZARRAGA: Pass the witness.
- 19 THE COURT: Counsel.

## 20 RECROSS-EXAMINATION

- 21 BY MR. GARNEY:
- 22 Mr. Adams, this won't take long. You are referring to Q. 23 a number of papers there before you.
- 24 Α. Yes, I am.
- 25 Are there papers there before you which are not reflected Q.

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in State's Exhibit No. 28, this two-page document?
  1
  2
            No, there is not. All of what should be on the page
      Α.
      that I am referring to should be on that.
 3
           Are you referring to this same identical paper that I
      Q.
 5
      have on my hand?
 6
            No, I have some other papers which are notes and things
      Α.
 7
      like that.
                 MR. GARNEY: Your Honor, may I have time to examine
 9
      those notes? May I approach the witness?
10
                ·THE COURT:
                              Yes.
11
            All right. Mr. Adams, the hairs that we're talking
12
     about, did you determine whether they were head hairs or
13
     pubic hairs?
14
           I'd have to look at my notes.
15
           You know what, Mr. Adams, in order to save time, I've
     Q.
16
     just been informed that Mr. David Mayham is also present to
17
     testify, and since he did the comparison, I won't ask you
18
     anymore questions at this time.
19
                MR. GARNEY: I pass the witness at this time, your
20
     Honor.
21
                THE COURT: Counsel?
22
                MR. LIZARRAGA: I have nothing further, your Honor.
23
                THE COURT: You may step down, sir, thank you.
24
     Call your next witness.
25
                MR. LIZARRAGA:
                                David Mayham.
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