that was sent to her in a large group. THE COURT: This is just the ones that she 2 3 handled in the bunch? It should have been done before. We're going to take a recess, ladies and gentlemen, 5 for ten minutes to get these exhibits in order. Once again I admonish you not to discuss the case among 6 7 yourselves or with others and not to form an opinion 8 until you've heard all of the evidence. Court will be in recess until the court reporter informs me that they're ready. 10 11 (Whereupon, a brief recess was taken from approximately 2:00 p.m. to 2:15 p.m.) 12 THE COURT: Do the parties stipulate that the 13 14 jurors are all present? 15 MR. THAGGARD: So stipulated. 16 MR. MALTESE: So stipulated, Your Honor. 17 THE COURT: The record will so show. Go ahead. 18 19 Whereupon, 20 JULIE LONG, 21 called as a witness, having been first duly sworn, was 22 examined and testified as follows: 23 DIRECT EXAMINATION 24 BY MR. THAGGARD: 25 Q Will you state your name for the Court, please?

A Julie Long.

Q What is your occupation?

A I'm employed as a forensic scientist particularly in the area of forensic serology at the Montana State Crime Lab which is located in Missoula.

- Q And could you please tell us what serology is?
- A Forensic serology is the typing and identification of blood and other body fluids mainly as they exist in stained form, and they are submitted to the Crime Laboratory by a law enforcement personnel from the state.
- Q How long have you been involved in this occupation?

A I've been employed there from July of 1980 through July of 1986, and then since February of 1988 to the present time. So a total of approximately eight years.

Q And what is your formal education in this field?

A I have a Bachelor of Science degree in microbiology from the University of Montana. I also have a diploma as a certified laboratory assistant from District 1 Technical Institute in O'Clare, Wisconsin. I have taken specialty classes, two classes from the FBI Academy in Quantico, Virginia, in blood stain analysis, a course also in blood stain analysis from the Serological

Research Institute, which is located in -- excuse me, now 1 it's Richmond, California, previously in Emeryville, 2 California, and I recently attended a semen analysis 3 course there also. Did you successfully complete these courses? 5 Yes, I did. Α 7 And what experience do you have in this field? Q I have eight years, approximately eight years of Α working experience and then the formal education. 9 And have you performed blood analysis? 10 Q 11 Α Yes, I have. Have you ever testified as an expert in court? 12 13 Yes, I have. And where have you testified, in what states? 14 In Montana in District Court and Federal Court. 15 16 Do you belong to any professional organizations? Yes, I do. I'm a member of the American Society .17 of Clinical Pathologists as a certified laboratory 18 assistant. I'm a member of the Northwest Association of 19 Forensic Scientists, and I'm also a member of the 20 21 International Hemogenetics Society. 22 And have you performed any analysis on evidence 23 in this case? Yes, I have. 24

Q I'm going to hand you a number of items and ask

25

you to identify them for us.

Did you have occasion to receive from

Arnold Melnikoff in 1989 any of the evidence taken from



A Yes, I did.

Q Okay. And what evidence was given to you by Mr. Melnikoff?

A The sexual assault kit that was done at the hospital and clothing and bedding that was submitted.

- Q And when was that given to you?
- A On the 15th of February, 1989.
- Q And in the things you received on the 15th of February of 1989, I'm now handing you State's Exhibit 4. Can you identify that?

A State's Exhibit 4 is a sexual assault kit. It's kit number is 2001. It's labeled with our case number assigned by the laboratory, which is 89-234, and it has my laboratory number and seal on it and signature.

Q And I'm handing you State's Exhibit No. 11, and can you identify that for us?

A State's Exhibit 11 is a sealed, partially sealed paper sack which, again, has my seal and signature on it, and it's labeled as being sheets.

Q I'm now handing you State's Exhibit 8. Can you identify that for us?

A State's Exhibit 8, again, is a sealed paper sack 1 with my seal and signature on it, and it's labeled as 2 3 women's panties. Their exhibit number is number 10 from the case and State's Exhibit No. 8. Q And I'm now handing you State's Exhibit No. 16. 5 6 Can you identify that for us? 7 A Exhibit No. 16 is a sealed paper sack labeled as 8 vacuumings from the bedroom. Q And I'm now handing you State's Exhibit 15. you identify that? 10 A State's Exhibit 15, again, is a sealed paper sack 11 with my seal and signature. It is labeled as a pillow 12 case. 13 Q I'm now handing you State's Exhibit 13. Can you 14 identify that? 15 A Number 13, again, is a sealed paper sack with my 16 17 seal and signature labeled as a toothpick, bedroom floor, south of bed. 18 Q I'm now handing you State's Exhibit 14. Can you 19 20 identify that? 21 A Number 14 is a sealed paper sack with my seal and 22 signature. It's labeled as dark blue panties. 23 I'm now handing you State's Exhibit 17. Can you identify that for us? 24 25 A State's Exhibit 17 is a sealed paper sack with my

seal and signature, and it is the pillow case from the 1 2 bed. Q I'm now handing you State's Exhibit 5. Can you 3 identify that? Number 5, again, is a sealed paper sack labeled as vacuum, bathroom. I'm now handing you State's Exhibit 7. Can you 7 identify that? 8 A State's Exhibit 7 is a slide box containing microscope slides prepared by Mr. Melnikoff labeled as 10 Richland County Sheriff's Office Case 89-234. 11 I'm now handing you what's marked as State's 12 Exhibit 18. Can you identify that? 13 A Exhibit 18 is a sealed letter envelope which has 14 my writing on it, 89-234, panties, number 10. 15 I'm now handing you State's Exhibit 19. Can you 16 17 identify that? A Number 19, again, is a white letter envelope with 18 19 my writing on it, hair from pillow case, number 6. Q And I'm now handing you State's Exhibit 20. Can 20 you identify that? 21 22 A Number 20 is a white letter envelope again with my writing on it, 89-234, hair from pillow case, number 23 24 7. 25 Q Were these received on the same date?

Α Yes. And what date would that be? 2 3 They were received into the laboratory on the 10th of February, 1989. 5 Okay. And then what was done with them? Then they were signed over to myself. 7 And when they were signed over to you, were they sealed? 8 9 Α Yes. And what did you do with them? 10 I opened up the sexual assault kit, and performed 11 12 the needed analysis, and also proceeded to open up the rest of the items and examine them for significant 13 evidence. 14 15 Q What did you do when you were done analyzing these items? 16 A The items were resealed. Items that were 17 specifically just for apparent fiber comparison were 18 assigned to Mr. Melnikoff. 19 20 Q And were any of those items ever returned to you? 21 Yes, they were. Α 22 And which items would those have been? 23 Those would have been the vacuumings, and the white envelopes which contained the hair that I removed 24 25 from the items that I looked at myself.

Yes. And when were they returned to you? 3 A On July 26th of 1989. 5 And were they sealed at that time? Yes, they were. Α 7 And what did you do with them then? I assigned them to -- I assigned the sealed 8 9 evidence over to Laurie Moffit, the evidence technician, 10 and she returned them to the Sidney Police Department via UPS. 11 12 And were those received? A Yes, they were. 13 Q And are your seals on all of these items? 14 A Except for the vacuumings, yes, they are. 15 16 And those seals on the vacuumings belong to? 17 Mr. Melnikoff. Okay. And have any of these seals been broken, 18 19 your seals? 20 No. Α MR. THAGGARD: Your Honor, I move to fully 21 22 admit all of these items. I'll read them off for the 23 record. 24 THE COURT: Is there any objection? 25 MR. MALTESE: Foundation.

And were those subsequently returned to you?

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MR. THAGGARD: Your Honor, we've shown our 1 2 chain of custody. 3 THE COURT: Well, you don't have to respond. Exhibits 4, 5, 7, 8, 11, 13, 14, 15, 16, 17, 18, 19 and 20 will be admitted. 5 MR. THAGGARD: Thank you, Your Honor. 7 Q Miss Long, was any other evidence submitted to you in this case? 8 Yes, it was. 10 Q And what was submitted to you? 11 A A standards kit, or sexual assault kit, containing standards from Mr. Paul Kordonowy. 12 Q Okay. And I'm now handing you what is marked as 13 State's Exhibit 24. Can you identify that for us? 14 15 A Exhibit 24, again, is a sexual assault kit. 16 number is 2067, labeled as coming from Paul Kordonowy, 17 and it contains the seal from the State Crime Lab. Q When did you receive that? 18 That was received into the laboratory on January 19 20 30th, 1989. And who received it? 21 22 A Laurie Moffit. 23 And then what was done with it? 24 -A It was signed to myself. Q Was it sealed when it was given to you? 25

And what did you do with it? 2 Ah, that evidence -- the kit was opened and I 3 analyzed the evidence that was pertinent to serology. 5 Q And then what did you do? A The kit was signed to Mr. Melnikoff for hair and 6 7 fiber comparison. And then what was done with the kit? 8 9 He signed it back to myself. On what date? 10 On April 11th, 1989. 11 Q And what did you do with it? 12 A I returned it to the Sidney Police Department on 13 June 30th, 1989. 14 And did you seal it before you returned it? 15 16 A Mr. Melnikoff sealed it after he -- I sealed it when I gave it to Mr. Melnikoff, and then he sealed it 17 when he was finished with the hair comparison. 18 19 Q Did he then hand it back to you? Α Yes. 20 21 Q And was his seal on it at that time? Yes, it was. 22 Is his seal on it now? 23 24 A Yes, it is. 25 MR. THAGGARD: Your Honor, I move to admit

Yes, it was.

2 THE COURT: Any objection. 3 MR. MALTESE: Same objection. THE COURT: It'll be admitted. 5 I'm now handing you what is marked as State's Exhibit 25. Can you identify that for us? 6 7 A Exhibit No. 25, again, is a sexual assault kit, evidence kit number 3180, labeled as coming from 8 Lynn Lohse, and it contains my seal and signature. 9 10 And when was that received? That was received on October 5th, 1989. Α 11 Q And who received it? 12 Laurie Moffit. 13 And then what was done with it? 14 15 Α It was signed to Mr. Charles Baker. 16 0 And who is that? He is the other serologist in the laboratory. 17 Α And then what was done? 18 0 19 Α He signed it to me. 20 And when you received it, was it sealed? Q 21 Yes, it was. 22 Okay. And what did you do with it? 23 I again analyzed the serological evidence. 24 And then what was done with it? 25 Α The kit was resealed, and I signed it to

1

State's Exhibit 24.

Laurie Moffit, and she returned it. 1 And is your seal present on this now? 2 3 Yes, it is. MR. THAGGARD: Your Honor, I move for admission of State's Exhibit 25. 5 6 THE COURT: Any objection? 7 MR. MALTESE: Foundation. 8 THE COURT: Did Mr. Baker do anything with it? THE WITNESS: No, he did not. THE COURT: It'll be admitted. 10 I'm now handing you what is marked as State's 11 Exhibit No. 9. Can you identify that for us? 12 A State's Exhibit No. 9 is a sealed envelope, step 13 number 7, which is a saliva sample, labeled as coming 14 , and it contains my initials and seal from 15 and the case number 89-234. 16 17 When was this received by the Crime Lab? 18 On the 17th of March, 1989. And who received it? 19 20 Mr. Jim Hutchison. And did he do any work on it? 21 22 Α No, he did not. 23 And then what was done with it? A It was signed to myself. 24 25 Q And was it sealed at that point?

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A Yes, it was.
              And what did you do with it?
 2
 3
              I analyzed it through our normal procedure, and
      then it was signed to Laurie Moffit to return to the
 5
      Sidney Police Department.
             And did you seal it?
7
          Α
             Yes, I did.
 8
              Is your seal still on this?
          0
          Α
             Yes, it is.
             And has it been broken?
10
11
          A No, it hasn't.
                MR. THAGGARD: Your Honor, I move for admission
12
13
     of State's Exhibit No. 9.
14
                THE COURT: Any objection?
15
                MR. MALTESE: Foundation.
                THE COURT: It'll be admitted.
16
17
          Q I'm now handing you what's marked as State's
     Exhibit No. 10. Will you identify that for us?
18
19
          A State's Exhibit No. 10 is a white envelope with
     orange lettering, step ten, whole blood sample. It's
20
21
     labeled as coming from
                                           , and it contains --
     it's sealed with the Montana State Crime Lab evidence
22
23
     tape and my signature.
24
             And when was that received?
25
             That was also received on the 17th of March,
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1989. And who was it received by? Mr. Jim Hutchison. Α 3 Did he perform any work on it? No, he did not. 5 Then what was done with it? It was signed to me, and I did the blood typing 7 on it, and sealed it, and returned it to Laurie Moffit to 8 return to the Police Department. 9 Is it now sealed with your seal? 10 Yes, it is. 11 Your Honor, I move for admission MR. THAGGARD: 12 of State's Exhibit 10. 13 THE COURT: Any objection? 14 MR. MALTESE: Foundation. 15 16 THE COURT: It'll be admitted. 17 Did you have occasion to analyze the vaginal 18 samples of Yes, I did. 19 20

And what did that analysis entail?

21

22

23

24

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In an alleged sexual assault case we receive the sexual assault kit from the investigating agency and then we attempt to determine if there is seminal fluid present in the samples that are submitted. In this case there were vaginal samples, oral samples and rectal samples.

And there are different perameters that we're looking for when we are trying to determine if there's seminal fluid present.

One of the perameters is acid phosphotase. That is an enzyme that is found in semen. It is also found in vaginal fluid. But the level is so high in semen that when we get a numerical value we can say, yes, this value is the seminal level of the enzyme present.

We also, obviously, look for sperm because sperm are only found in seminal fluid.

Another perameter that we do occasionally look for is P30. P30 is a protein. It is produced by the prostate gland, and so it is another specific test for seminal fluid.

Q And what did your analysis of vaginal sample reveal?

A There was seminal fluid found in the vaginal samples.

Q And can you explain to us what that seminal fluid revealed?

A That she had had recent intercourse, "recent" meaning within three days of when she had the examination taken.

Q And did you type blood?

A Yes, I did.

- Q And what is her blood type?
- A Her blood type is ABO type O.
- Q And what did you type the defendant's blood?
- A He is also ABO type O.

Q Okay. And what is an H secretor?

A In a case involving sexual assault where you're going to have body fluids present and not necessarily blood, it's important that we determine the secretor status of the individuals involved. That means approximately eighty percent of the population secrete their blood type substances in their body fluids.

For example, if your ABO type is A and you are a secretor then, if you're female, in your vaginal fluid, in your saliva, in your sweat, you are secreting A Substance. You also secrete H Substance. H Substance is just the basic sugar that the A and the B blood types are made from in your body.

If you are an ABO type O, then you secrete the H Substance. If you are type B, then you secrete the B Substance. And so if you are a male, then in your seminal fluid, and in your saliva, and in your sweat, you are secreting your corresponding ABO type. So that is why it is important in an alleged sexual assault case to determine if the people are secretors.

Q Is a secretor?

```
Yes, she is.
              And is she an H secretor?
 2
              Yes, she is.
 3
           Α
              Is the defendant, Paul Kordonowy, an H secretor?
              Yes, he is.
 5
              And when you examined the vaginal samples, were
 7
      there H secretions present?
           A Yes, there were.
 8
              Were there any other secretions present?
 9
              Yes, A Substance was present.
10
           Α
              The A secretion?
11
             Yes.
12
13
           Q Now, who could be responsible for the presence of
      the H secretion in the vaginal sample?
14
                            can be a source of the H Substance
15
      since she is an H secretor, and also a semen doner who is
16
17
      an H secretor is a possibility.
           Q Could Paul Kordonowy be a source of the H
18
      secretion?
19
20
           A He could be, yes.
21
              Now, could
                                        be responsible for the A
22
      secretion?
23
          A No, she could not.
24
           Q Could Paul Kordonowy be responsible for the A
      secretion?
25
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No, he couldn't. 1 blood type? Did you type 2 Q 3 Α Yes, I did. And is Mr. a secretor? 0 5 Yes, he is. And what does he secrete? 7 He's an A secretor, so he secretes A Substance and H in his seminal fluid, and saliva, and sweat. 8 Mr. had had sexual intercourse with on July 23rd, 1987, two days prior to the 10 Miss taking of these vaginal samples on the morning of July 11 Could Mr. be responsible for the presence of 12 13 the A secretion? Yes, he could. 14 15 Is there anything else that could be responsible 16 for the presence of the A secretion? 17 Yes, in this case there was a large amount of 18 bacteria, which I noted, and it has been reported that a large amount of bacteria can give you an A Substance 19 20 reading in your analysis because your ABO substances are sugars, and bacteria also produce sugars. 21 22 Based on your analysis of Bergh's blood, based on 23 your analysis of Mr. Kordonowy's blood, based on your s blood, and based on your analysis of 24 25 analysis of the vaginal sample, can Mr. Kordonowy be

ì	exclude	d as the possible donor of the H secretion in
2		s vaginal sample?
3	A	No, he cannot be excluded.
4	Q	Did you examine the panties taken from the bed?
5	A	Yes, I did.
6	P Q	And what did that analysis entail?
7	A	The item was opened, taken out of the sack and
8	examine	d for possible semen stains that may be present.
9	Q	Were any stains found?
10	A	Is that number can you tell me which number
11	that is	?
12	Q	That would be item number ten.
13	A	Yes, I did find a seminal level of acid
14	phospho	tase in that pair of underwear.
15	7 Q	And how high a level would that have been?
16	a A	I don't know the specific number here, but in our
17	analysi	s it's just it's high enough that we could call
18	it an s	eminal level a seminal level.
19	Q	And did you analyze that semen, or that level?
20	A	Yes, I did.
21	Q	And what did that reveal?
22	A	That revealed the presence of A Substance and H
23	Substance.	
24	Q	Could Mr. Kordonowy be responsible for the H
25	Substan	

.1	A Yes, he could be.		
2	Q Could be responsible for the H		
3	Substance?		
4	A Yes.		
5	Q Did you examine the blue panties found in the		
6	kitchen, which would be item number nine?		
7	A Yes, I did.		
8	Q And what did that examination reveal?		
9	A That item was examined in a similar fashion, and		
10	a semen stain was also found in panty number nine.		
11	THE COURT: Now, you should, to make a record		
12	now, that's Exhibit 14, is it not?		
13	MR. THAGGARD: Yes, Your Honor.		
14	THE COURT: And then your prior testimony		
15	referred to Exhibit 8, I believe. Is that correct?		
16	MR. THAGGARD: That's correct, Your Honor.		
17	THE WITNESS: Okay.		
18	THE COURT: Go ahead.		
19	Q What did the analysis of Exhibit 14, the panties		
20	found in the kitchen, reveal?		
21	A That there was a semen stain present.		
22	Q And were there any secretions present in that		
23	semen stain?		
24	A Yes, there were; A and H Substances were present.		
25	Q Could have been responsible for the A		

Substance? 2 A Yes, he could. Q And could he have been responsible for the A secretion found in Exhibit No. 8, the panties found in the bed? 5 A Yes. 7 Q Can Paul Kordonowy be excluded as a possible 8 donor of the H Substance found in Exhibit 14, the panties 9 found in the kitchen? A No. 10 MR. THAGGARD: No further questions, Your 11 12 Honor. THE COURT: Cross? 13 14 MR. THAGGARD: Thank you, Your Honor. 15 CROSS-EXAMINATION 16 BY MR. MALTESE: 17 Miss Long, you are an employee of the Montana 18 Department of Justice? 19 Yes, sir. 20 And you work with the State Lab, it has a formal 21 name? 22 A Division of Forensic Science. 23 Q Okay. And you have testified before in a forensic capacity? 24 25 A Yes.

And how many times have you testified? Oh, approximately forty. 2 Α How many times have you testified for the State 3 of Montana? 4 It's all been for the State of Montana. 5 Now, as I understand it, you also -- you prepared 6 7 a Physical Evidence Examination Report in connection with the analysis of the items of evidence that you examined? 8 A Yes. 10 And, as I understand your testimony, is ABO type A and a secretor? 11. Yes, that's correct. 12 Now, ABO type refers to blood? O 13 A Yes. 14 15 And secretor talks about certain type of characteristics of that -- character of blood? 16 17 It refers to what you expect in the body fluids. 18 Q If you are an ABO Type A and a secretor, as 19 is, and if you examine these evidence slides 20 and whatnot that you examine, you could expect to see an A Substance and an H Substance in the evidence samples, 21 isn't that correct? 22 Yes. 23 Q And if Miss were ABO Type O and a secretor, 24 25 you could expect to see an A Substance ----

1 No. 2 --- in the seminal fluid? You could not expect to see the A Substance in the seminal fluid, is that 3 correct? 5 I'm confused. You were talking about ----6 Q Okay. Let me start over again. Perhaps I can 7 straighten it out. 8 Now, Miss has an ABO blood type? 9 A Yes. 10 Type O? 11 A Yes. 12 Mr. Kordonowy has an ABO blood type Type O? 13 Yes. 14 And Mr. had a different blood type? 15 A *Yes. An ABO Type A? 16 17 Yes. 18 Now, from a secretor's standpoint, an ABO 19 Type O can be the source of an H Substance? 20 Α Yes. 21 It cannot be the source of an A Substance? 22 That's correct. 23 Now, when you examined these different specimens 24 of evidence, if you would have found an A Substance 25 located on any of them, and only an A Substance, not an H

Substance, for example, you can say with some source of 1 precision that Mr. Kordonowy's seminal fluid probably 2 could not be found on that piece of evidence, is that 3 accurate? 5 If there was just the A and no H? Just an A alone. 6 A Yes. 7 If there was an A and an H Substance, you can't 8 rule out the possibility that Mr. Kordonowy may have 9 contributed the H Substance? 10 A That's correct. 11 Q On the other hand, you can also not rule out the 12 H Substance may have come from Miss 13 Mr. Kordonowy, or Mr. Each of those people could 14 have had an H Substance or contributed an H Substance to 15 16 the evidence sent, is that accurate? Yes, that's correct. 17 Now, the A Substance, as I understand it, could 18 19 have also been present because of the action of bacteria 20 on the sample. That's a possibility, yes. 21 22 And were you aware of when these samples were taken? 23 I was when I did the examination, yes. 24 25 Q If I refreshed your memory and said that it was

sometime in 1987, July 25th of 1987, would that seem like a reasonable time that certain samples were gathered in connection with your analysis?

A Yes, that's why I have a note in the report, is what was on top of the kits. I believe it was 7/25/87.

Q Okay. And because of the lapse of time I think you testified that you received these samples some time in 1979 -- or '89, excuse me?

A Yes, January.

Q There was a possibility of bacteria which could have caused an A Substance to be present?

A That's possible, yes.

Q Had the samples been mailed to the State Lab earlier, before this bacteria came about, you might have been able to have a more precise analysis with respect to the A Substance?

A Yes.

Q Now, so there's no misunderstanding, when you examined these swabs and other items of evidence,
Miss Long, you were looking for more than simply an A or an H Substance, weren't you? You were looking first of all for the presence of seminal fluids.

A Yes, that's correct.

Q And with respect to several of these items of evidence, you did find seminal fluid?

A Yes, that's correct.

Q And then, as I understand it, after you made the determination that there was seminal fluid, and I guess to clarify it, seminal fluid would be an emission from the male sex organ?

A That's correct, yes.

Q One of the components of seminal fluids would be sperm?

A Yes, that's correct.

Q And so then you would have looked at all these various items of clothing, bedsheets and whatever else, and seen if you could have detected sperm?

A Yes.

Q And, in fact, I see that you prepared a Physical Evidence Report, and you have prepared a little chart, and you described in the chart the various types of tests and things that you analyzed, and then in one column you put a description of whether or not any sperm was present.

A That's correct.

Q And, as I understand it, basically there was only one piece of clothing in which a few head of sperm were present.

A That's correct.

Q And I believe you also testified the sperm has a

life of, what, three days did you say? Or did you not say that?

- A I didn't say that in my testimony at all.
- Q Does it have a certain life?

A Sperm in the vaginal cavity?

Q No, not in the vaginal cavity, on something like a piece of clothing or something like that? In other words, in order to be able to detect sperm does there have to be an analysis within a specified period of time?

A Once the sperm are deposited on an item, depending on the conditions that that item is in, if there is — if the items is, say, dried and particularly if it's dried, then sometimes the sperm can stay months, years. If the environment that the item is in is, say, moist there may be more bacterial action, and that bacterial action sometimes destroys the sperm that may be present. It just depends on what the environment that particular stained item is in.

Q In other words, if you took a sample from a, say, a pair of panties and sperm had been deposited on those panties, that could have been deposited several days or even maybe weeks before the examination?

A Yes.

Q So there's no way to determine with any degree of precision when that sperm would have been deposited on

that article of clothing?

A No, there isn't.

Q Now, I believe, then, your testimony with respect to three days related, perhaps, to the taking of swabs at the hospital, is that accurate?

A Yes, I believe I said that seminal fluid, ah, the outside range for seminal fluid generally is -- it can remain up to three days in the vaginal cavity depending on the physical activity of the person, the amount of seminal fluid that's there to begin with. There are many factors that affect what you would find three days later.

Q So, in other words, to the extent that there was seminal fluid located on any of these specimens or articles of clothing, if the victim had had sexual relations at any time within that three-day period of time, it could have come from that source.

A Yes, that's correct.

Q Now, my understanding is that you examined two vaginal swabs, a vaginal aspirate, an oral swab, a rectal swab and two different panties, is that correct?

A Yes, that's correct.

Q And with respect to all of these items, it was only in the panties that a few heads of sperm were identified.

A That's correct, yes.

And there was none identified in the other ----No, there was not. 2 And in terms of the existence of seminal fluid, 3 was there seminal fluid located on these various specimens? 5 6 Yes, they were. 7 In all of them? In the vaginal aspirate, and a high level of a 8 9 seminal enzyme in the two vaginal swabs. Q Now, if there is a sample which shows seminal 10 fluid and shows the presence of an A Substance and an A 11 Substance alone, can we at that time rule out that 12 Mr. Kordonowy's seminal fluid may be involved? 13 A On that one particular sample? 14 Yes. 15 (The witness took several moments to answer.) 16 17 Yes, I believe I can. 18 So, for example, in your analysis you show a 19 vaginal swab that shows the presence of A but not the 20 presence of H? 21 That's correct, yes. 22 And in another, the vaginal aspirate, you show 23 the presence of A, but you don't show the presence of H? 24 That's correct, yes. 25 And, also, on your rectal you show the presence of

A, but you don't show the presence of H? 2 Yes, that's correct. 3 Q So with respect to those three samples, then, we 4 can rule out Mr. Kordonowy? 5 A For those particular samples, yes. 6 Then, with respect to the vaginal swab 7 which shows the A and the H Substance, we cannot rule out Mr. Kordonowy because of the presence of the H Substance. 8 9 That's correct, yes. But we can also -- cannot rule out that the 10 11 originator of that H Substance was Miss herself as an ABO Type O? 12 13 Α That's correct, yes. as an ABO Type A? 14 Or Mr. Q That's correct. 15 16 And, likewise, in the examination of the two 17 pairs of panties which show the substance of A and H, 18 again, we cannot rule out Mr. Kordonowy but the H 19 Substance could have been contributed by either Mr. or Miss 20 herself? 21 That's correct, yes. 22 Is it a fair statement, Miss Long, to conclude 23 that the examinations and testing do not conclusively show that any semen detected from the samples can be 24 25 traced to Mr. Kordonowy?

ŀ A Not conclusively, no. And, in fact, all you can do, at least as to some 2 3 of those samples, is rule out that he may have been a 4 person that contributed? 5 That's correct, yes. MR. MALTESE: I have no further questions. 7 THE COURT: Redirect? REDIRECT EXAMINATION BY MR. THAGGARD: 10 Q What percentage of the population secretes the Substance A? 11 I'm sorry, A? 12 Yes. 13 0 (Whereupon, the witness computed the percentage 14 on her calculator.) 15 16 A Approximately twenty-six. 17 Q What percentage secretes the H Substance? 18 (Whereupon, the witness computed the percentage 19 on her calculator.) 20 A Approximately twenty-nine. 21 Now, could have contributed any of the H samples present in the panties, Exhibits 8 and 14, or 22 23 in the vaginal swabs contained in the rape kit? 24 The H? Α 25 0 Yes.

1	A Yes, he could.
2	Q Could
3	A He could contribute the H. A person who is an A
4	secretor can contribute A or H. A person who is a B
5	secretor can contribute B or H. And an O secretor
6	secretes H.
7	Q Did any of the vaginal samples, or vaginal swabs,
8	contain H sample?
9	A Yes, they did.
10	Q Okay. And did State's Exhibit 8, the panties
11	from the bedroom, contain H sample?
12	A Yes, it did.
13	Q And did State's Exhibit 14, the panties from the
14	kitchen, contain the H Substance?
15	A Yes, it did.
16	Q And can Mr. Kordonowy be excluded as the doner of
17	the H substance in any of those exhibits?
18	A No, he can't.
19	MR. THAGGARD: Thank you, Your Honor. I have
20	no further questions.
21	THE COURT: Recross?
22	MR. MALTESE: Just one question.
23	RECROSS-EXAMINATION
24	BY MR. MALTESE:
25	Q I believe you stated that twenty-nine percent of

2 The figures are United States population, yes. United States population? 3 Yes, not world population. 5 So then twenty-nine percent of the population of the United States of America could possibly secrete H? 6 7 A Yes. And again, just to reiterate, all of the 8 9 principals, Mr. , Miss and Mr. Kordonowy, 10 would secrete H? Α Yes. 11 And, therefore, they would be within that 12 twenty-nine percent of the population? 13 would not be -- the figure of 14 twenty-nine percent is for someone who is an ABO Type O 15 and who is a secretor. Mr. because he is an A 16 17 secretor, it's possible that he's secreting H Substance, 18 which he was in his saliva sample that I found. But the twenty-nine percent figure is who is a blood type O and a 19 secretor. 20 21 Q Okay. So, in other words, anybody that has an 22 ABO, O blood type there's a twenty-nine percent possibility that they would be secretors? 23 Yes, that's correct. 24 25 Thank you.

all humans secrete H?

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Is this witness released from her 1 THE COURT: 2 subpoena? MR. THAGGARD: 3 Yes, Your Honor. THE COURT: You're free to go. 5 THE WITNESS: Thank you. 6 MR. THAGGARD: Thank you, Mrs. Long. 7 THE COURT: You may leave or stay. 8 THE WITNESS: I'll leave, thank you. 9 THE COURT: Okay. MR. THAGGARD: Your Honor, at this point the 10 State rests. 11 THE COURT: Mr. Maltese? 12 13 MR. MAITESE: Thank you, Your Honor. 14 15 OPENING STATEMENT 16 BY MR. MALTESE: Ladies and gentlemen of the jury, the State has had 17 18 it's opportunity to present it's case, and I hope that 19 all of you remember that the case isn't concluded until 20 everyone has had an opportunity to present evidence to this Court. 21 22 In our procedure I have an opportunity, here, to give you an overview of the type of evidence that we have 23 24 an opportunity to present at this time.

Now, my client, Mr. Kordonowy, is going to avail

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