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WASHINGTON, DC

Department of Forensic Science

September 14, 2017

Steven D. Rosenfield  
Attorney at Law  
913 E. Jefferson Street  
Charlottesville, VA 22902

Re: Case of Jens Soering

Dear Mr. Rosenfield:

At your suggestion I am writing this supplement. I will try to avoid being redundant, but there is always some amount of overlap.

### **Possible Mixing in 23K #1**

After requesting the files from DFS, we learned that a DFS Memoranda reveals that DFS staff have told Bedford authorities and Inv. Trudy Harris that the AB blood found in the kitchen (23K #1) and AB blood found on the front entrance door (7FE #1) could possibly be a mixture of other blood types mixing together. To reach that view one has to abandon scientific methodology and speculate. Mary Jane Burton, in 1985, found some stains to be mixtures which tells me that she was on the look out for mixtures (standard methodology for serologists).

I recently received a DVD disk which you sent to me, having obtained it from DFS. The disk identified as W15-01536, contained FMBio reads 1 and 2, and was password protected. The disk contains readable files and FMBio proprietary software products. I am still trying to get the software and a computer to inspect these files. However, unless they contain some striking discrepancies, the fact that DFS and Bode had the same results of samples tested by both, suggests that there will be little, if any, new information. The DFS written materials amply support my conclusions.

It should be noted that there is a documented mixture in an AB sample. Stain 13K is reported as PGM type 1+,2+,2-. As this stain has three PGM markers it has to be a mixture of at least two individuals. It should be noted, that this is the only sample with a documented mixture at either the protein or DNA level.

It is not possible to mix type A blood and type B blood or mix type A blood and type AB blood, and thereby produce what DFS believes could be a mixture containing only AB blood – as found by serologist Ms. Burton. If you are type B blood, then in your plasma you carry antibodies along with a certain kind of antigen and if you are type A blood then in your plasma you carry antibodies along with a certain kind of antigen. These antibodies, also called agglutinins, are easily detectable, which is why true type AB blood is clearly distinguishable from a mixture of A and B. If there is a mixture of A and AB, a technician would have to find antigen B and antibodies contained in type A blood and would therefore not be a pure AB typing. Serologist Ms. Burton, did not report a mixture meaning she found a true AB type blood in the stains she identified. Of course, in the DNA 2009 testing, each of the AB blood types described above contained a “Y” chromosome meaning it was a male contributor.

### **Additional Observations Strengthen My Earlier Opinions**

At your request, I include scientific facts not in my earlier report that significantly strengthen my earlier findings. I did not include these facts because I did not think it necessary as I believed I proved that 23K #1 and 7FE #1 were true AB blood types and not mixtures. Memoranda generated by DFS reveals that officials are still not convinced that AB blood found by Ms. Burton in 1985 are pure, unmixed and uncontaminated type AB blood. I will add additional proof of the purity of the AB blood type.

As explained in my first letter, items 9K, 10K, 23K #1 and 7FE #1 were all determined to be type AB blood during serology testing conducted in 1985 by DFS’s serologist Ms. Burton. During DNA testing conducted in 2009, it was learned that items 9K and 10K have XX chromosomes, indicating that source was female. DNA testing also revealed that 23K #1 and 7FE #1 have XY chromosomes, indicating the source was male. These findings strongly suggest that 9K and 10K were left at the crime scene by a different person than the person who left 23K #1 and 7FE #1.

For item 23K #1, there is additional evidence that it was left by a different person than 9K and 10K: at locus D3S1358, item 23K #1 has different values than items 9K and 10K. Item 23K #1 reported 19,16 at locus D3S1358, while 9K and 10K reported 14,16. Even aside from the gender difference, the differing values at this locus provide especially strong evidence that 23K #1 was left at the scene by a different person than the person who left 9K and 10K.

For item 7FE #1, there was no reporting of results at D3S1358, so I considered this item to be of lesser evidentiary value than item 23K #1. However, item 7FE #1 is a strong finding that I make with the same degree of confidence as for 23K #1. That is because item 7FE #1 reports at locus D8S1179 a value of 13,14 while 10K reports 10,14. This parallels the findings regarding different values found at D3S1358 for item 23K #1.

[The following information will be of interest only to the scientifically curious. At locus D8S1179, item 9K reports only one value: 14. This indicates that one of the two alleles

dropped out during DNA testing, see page 4 of my original letter. This does not affect the finding in regard to item 10K. Also, item 23K #1 reports no values at locus D8S1179. That does not affect the finding in regard to 7FE #1. Dropped alleles and no reported results are common in DNA testing of decades-old blood samples, which were often secured under less-than-ideal conditions.]

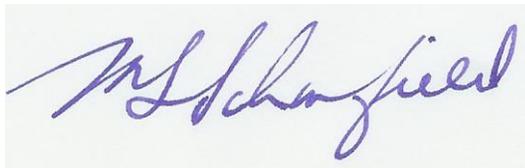
### Conclusion

I conclude with a reasonable degree of scientific certainty that item 7FE #1 was left at the crime scene by a different person who left item 10K. Moreover, a third locus, as discussed above, shows that item 23K #1 has different values than items 9K and 10K at Amel locus, D3S1358 and D13S317.

The differing values at locus D13S317 confirm my earlier findings regarding item 23K #1 and lend an even greater degree of scientific certainty. There is no doubt that 23K #1 was left at the scene by a different person than the person who left items 9K and 10K.

Finally, aside from Ms. Burton's opinion that 23K #1 and 7FE #1 are pure AB blood types, there are no additional alleles at the locus described throughout my reports and on the chart I provided

I am glad to discuss my findings with anyone associated with the investigation of this case.

A handwritten signature in blue ink, appearing to read "M. Schaffel", is centered at the bottom of the page. The signature is written in a cursive style with a light blue background behind it.