

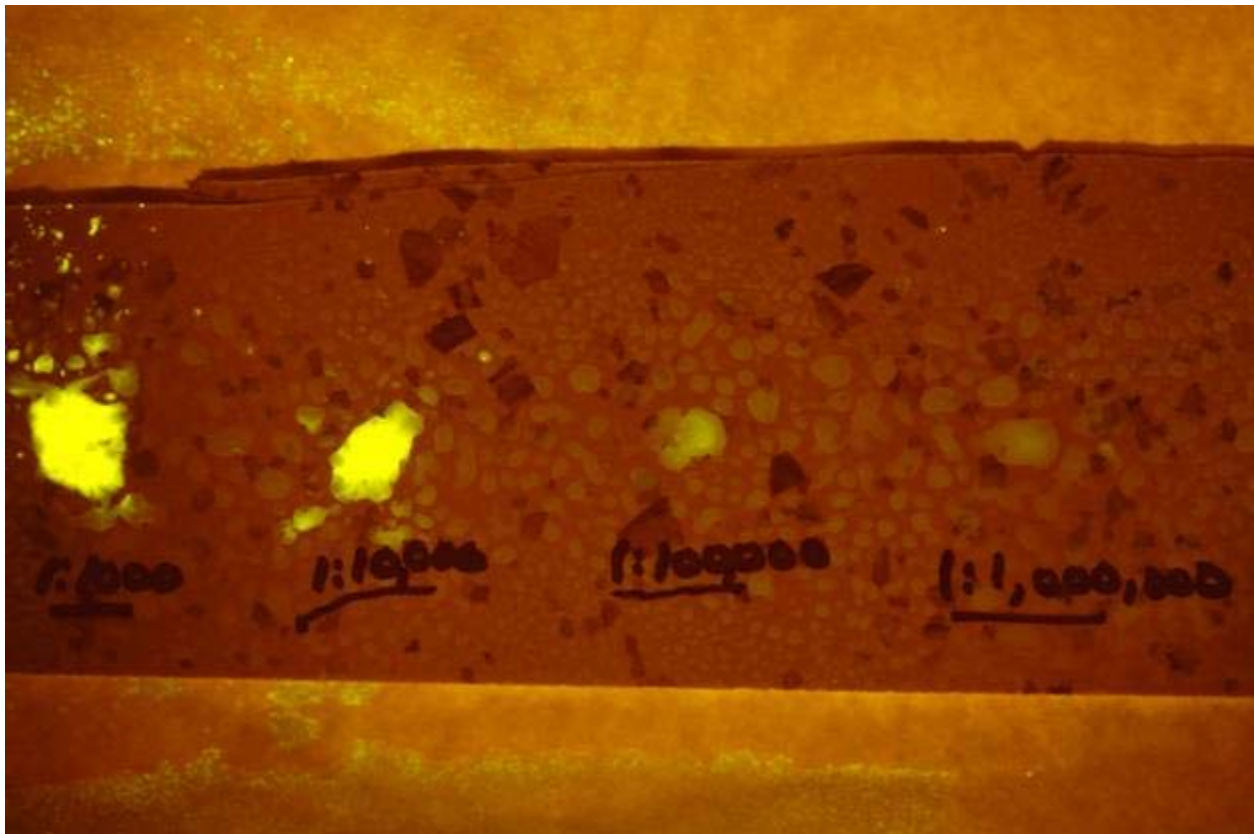
04/06/11

Per my phone conversation with your company today, below is some feedback on our experience with Hemascein:

I am Detective Lieutenant JP Sinclair of the Vermont State Police. I am currently the Commander of the State Police Crime Scene Search Team. We are the team that is activated to respond to all homicide scenes both in our jurisdictions and (by request) those covered by Municipal Police agencies in the State of Vermont. We also respond to other major crime scenes on a case by case basis. We are responsible for the processing of evidence at the scene and documentation of the scenes.

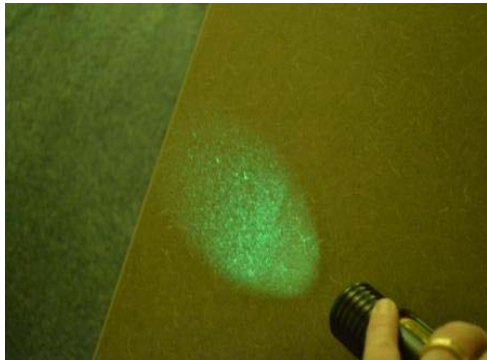
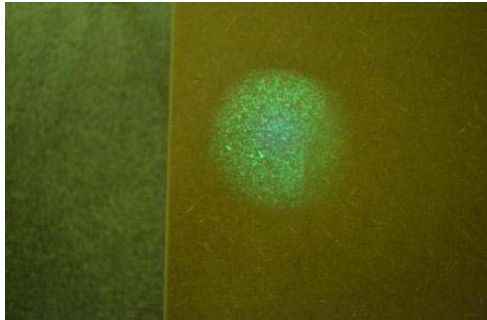
I have been researching blood reagents to add to our equipment used at crime scenes. To date, we only utilized Phenolphthalein presumptive tests on visible stains found at scenes; however, I had concerns of encountering a homicide scene that had been cleaned up by the accused. Due to health and liability concerns, we had long since discontinued the use of luminol.

We purchased a Hemascein kit about 3 months ago and have done some extensive practice and testing in conjunction with our Vermont Forensic Laboratory. I have been happy with the results. We initially tested Hemascein in the lab on a piece of linoleum with known dilutions to test its sensitivity. Attached is a picture showing the photo depicting the test results. I was very happy with the visible reaction all the way down to 1:1,000,000. The reaction time was also very impressive, the day after we applied and photographed the reaction, we still were getting visible reaction.



We further tested the ability to get a complete DNA profile with nuclear DNA after application of the Hemoscein on a controlled blood application. Again, the product worked as advertised and did not inhibit the ability to get a full profile.

I have since been testing the Hemoscein with canine blood in a variety of testing areas. Below is a photograph of a conference room table with 2 drops of blood applied, cleaned with a wet paper towel and then dried with a paper towel.



Below is the control area outside the blood area with Hemoscein and Hydrogen Peroxide applied showing no reaction



I have found that the yellow filter glasses and camera lens with the blue UV crime light is best for viewing and photography. Although the recommended orange filter does work, I have found yellow is more sensitive and is easier to see and photograph. Photography of the Hemoscein reaction is very easy. We utilize a Nikon D3100 digital camera with the flash turned off. It's as simple as pointing the

blue wavelength light on the reaction area with one hand and taking the picture with the other. As shown, the reaction photographs very well.

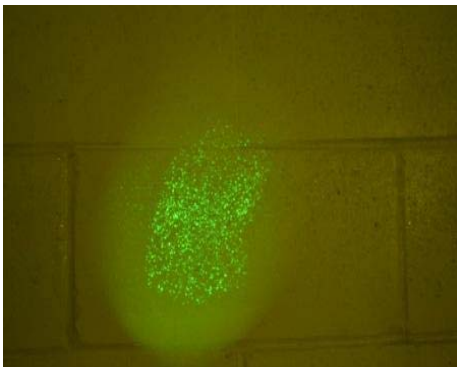
Below is another test done on painted concrete garage wall. Picture 1 is the blood applied (2 drops canine blood, smeared).



Picture 2 is after cleaning with wet paper towel and then dry paper towel.



Picture 3 is after application of Hemascein and Hydrogen Peroxide showing reaction



Again, excellent reaction and easy to photograph.

The ability to keep a concentrate solution ready to mix into the sprayer is very helpful. The sprayers can be readied very quickly at a field scene.

The results to date of our practice with Hemoscein have been favorable and we have used it in a few actual field scenes with lab results pending. It has greatly enhanced our ability to get the jump on crime scenes with the potential for foul play.

Detective Lieutenant JP Sinclair, Vermont State Police