



E6 Gunshot Residue: Is It Suitable for Court?

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After attending this presentation, attendees will have information regarding whether the results of testing for gunshot residue should be submitted as evidence in court as well as why a judge recently excluded GSR evidence under the *Frye* test.

This presentation will impact the forensic community and/or humanity by demonstrating whether scientific testing exists to provide information that will be helpful for court and police or are private laboratories simply for profit businesses thereby limiting GSR as an investigative tool.

Recently the FBI Laboratory stopped doing GSR testing, citing the allocation of scarce resources. Newspapers reported that the FBI found GSR particles in pertinent areas in their new state of the art \$130,000,000 laboratory. During the past year the FBI hosted a meeting on the future of GSR. Only employees of laboratories which actually do GSR testing were invited to attend. Discussions and minutes were not disclosed until oral reports were given months later to limited audiences at two scientific meetings. A written report was published online in the July 2006, issue of *Forensic Science Communications*. It was against this background that a legal challenge was mounted in a criminal case in Anoka County, Minnesota. Two people were shot and killed outside a pool hall. A number of people were stopped leaving the scene. They were brought to a police station and held together in a small hallway. Thirteen people were handcuffed on benches and on the floor. Police required all to use the bathroom and wash their hands. The police removed and replaced handcuffs after each person washed. Four hours later, sampling began. The subjects were taken into the test room one at a time still wearing clothes from the scene. They changed into jail clothes in the test room. Their hands were photographed using a table as a backdrop and the table was wiped off between subjects with a dry towel. Twenty-four "stubs" were sent to a commercial analytical laboratory for testing using SEM. A note stating that the subjects may have washed their hands was included. The stubs were all tested at a cost of \$4800. All tested positive to a degree. The report, which was given to the grand jury, stated that positive test results meant that the subject had fired a gun, been in close proximity when a gun was fired, or handled contaminated guns or ammunition. The analyst testified at the *Frye* hearing that the language in the report was a mistake. He added the language "or other surfaces" to his testimony. The court ruled that GSR testing was not generally accepted in the scientific community of GSR experts (in part because there is no standard as to the number of particles needed), that it was not reliable in this case, and that it would not be helpful to the jury. The state is not appealing but has asked the Court to reconsider as to only one Defendant. Why? Because he had so much residue that it must not be contamination. They stated that they needed it to show that the Defendant fired a gun or was near a gun when it was fired - exactly what was in the original discredited report. It was very clear from the testimony at the hearing that the evidence was being offered by the State and the State's expert to show much more than it can really show. That expert has testified to much more in the other cases. The Court's ruling in this case came before the publication of the GSR Symposium Report and the report raises many questions including acceptance criteria, report language, criteria for a positive test, and quality control in the laboratories doing GSR analysis.

Gunshot Residue (GSR), *Frye*, Contamination