

IN THE CIRCUIT COURT OF WOOD COUNTY, WEST VIRGINIA

STATE OF WEST VIRGINIA,
Plaintiff,

Vs.

// Case No. 02-F-131
(Thomas C Evans, III, Judge)

ROBIN LADD,
Defendant.

**ORDER DENYING MOTION *IN LIMINE*
TO EXCULDE TOOLMARK TESTIMONY**

Upon the defendant's Motion in Limine to Exclude Tool Mark Testimony (etc), opposed by the State, the defendant seeks to exclude the expert testimony of Rodger R. Reed, a forensic firearm and tool marks examiner, on the basis that the theory and technique of tool mark identification is unsound, and that this scientific evidences is unreliable. No challenge is made by the defense, in this motion *in limine*, on the issue of whether Mr. Reed is a qualified expert witness. See Syllabus point 5, *Gentry v. Mangum*, 195 W.Va. 512, 466 S.E.2d 171 (1995).

The purpose of the expert testimony to be offered is set forth in the 2000 trial transcript and, essentially, consists of expert opinion that tool marks existing on a homemade firearm sound suppressor (a silencer) found in the possession of defendant's alleged co-conspirator (A. Mitchell) were made by a common tool known as a vise that was found by the police at defendant's farm in Jackson County, West Virginia.

In support of the admissibility of such expert opinion, the State presented the testimony of Rodger Russell Reed. The defendant was afforded an opportunity to present evidence, and both parties submitted memoranda of law.

Findings of Fact

From the evidence presented, the court finds from a preponderance as follows:

1. Reed testified that he is a forensic scientist, employed by the West Virginia State Police for 16 years at the forensic laboratory, the last 6 in the firearm and tool mark section. He has a BS in chemistry and a minor in physics from Fairmont State College, together with graduate classes in microscopy at Marshall University. He is a member of the Association of Firearms and Tool Mark Examiners (AFTE), an association existing since 1969, and the Midwestern Association of Forensic Scientists.

2. AFTE is a peer group of examiners from around the world that examine evidence. Typically, the evidence consists of firearms, cartridge cases and bullets, but also tool marks left by bolt cutters, pliers, and the like. AFTE regularly publishes a technical journal in the field, and it is peer reviewed. The journal contains special cases submitted to it, but also information regarding ongoing research in the field.

3. AFTE provides standards for becoming a firearm and tool mark examiner, and these standards have been adopted by the W. Va. State Police. Generally, the training period under the direction of senior firearm and tool mark examiners in the organization.

4. The principle underlying and forming the basis for the opinion that the tool marks on the silencer were made by the vise at the Ladd farm is that a tool leaves damage on another object that is unique and distinct to that particular tool. Tool mark optical bridge, of a mark left by a tool on a piece of evidence with the tool mark created with the instrument on an exemplar of similar composition. The tool mark left by a particular tool on a surface contains individual characteristics left by the tool. The examiner considers contour, height, dept and other individual characteristics of the tool mark in the examination of the evidence. The examiner uses scientific observation and measurement in this process.

5. Tool mark identification and firearm and ballistic identification rely on the same methods and scientific principles.

6. A determination of whether there is a “match” or a conclusion that the marks on the crime scene evidence and the marks left on the exemplar were made by the same tool or instrument depends on whether there is “sufficient agreement” between the compared marks for the examiner to conclude that there is either a match or that the marks were made by different tools. The discipline does not have a fixed standard (i.e., what number of identical compared marks constitutes “sufficient agreement”).

Conclusions of Law

7. In West Virginia, the admissibility of an expert opinion is governed by the West Virginia Rules of Evidence. *Gentry v. Mangum*, 466 S.E.2d 171 (W. Va. 1995). Rule 702, WVRE, provides:

RULE 702. TESTIMONY BY EXPERTS

If scientific technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education may testify thereto in the form of an opinion or otherwise.

8. The recent cases of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993), and *Wilt v. Buracker*, 191 W.Va. 39, 443 S.E.2d 196 (1993), *cert denied*, 511 U.S. 1129, 114 S.Ct. 2137, 128 L.Ed. 2d 867 (1994), provide the contour of analysis regarding the admissibility of scientific testimony under the West Virginia Rules of Evidence. These decisions and *Rule 702* impose upon a circuit court the duty to screen scientific evidence for relevance and reliability. In this manner, the court fulfills the “gatekeeper” function under *Daubert/Wilt*.

9. In *Watson v. Inco Alloys*, 209 W. Va. 234, 545 S.E.2d 294 (2001), the court held that the question of admissibility of expert testimony under *Daubert* and *Wilt* only arises if it is first established that the testimony deals with scientific knowledge; “scientific” implies a grounding in the methods and procedures of science while “knowledge” connotes more than subjective belief or unsupported speculation, and in order to qualify as “scientific knowledge,” an inference or assertion must be derived by the scientific method.

10. The court is satisfied that the basis underlying this expert’s opinion is grounded in the scientific method, and that the *Daubert* and *Wilt* analysis is applicable to a determination of whether this expert testimony is reliable under Rule 702. The theory underlying tool mark identification, as well as ballistic and firearm identification, is that marks left by tools are microscopically unique. This theoretical assertion has been validated by testing. The inquiry is whether the method is junk or novel science and, thus, unreliable.

11. In Syllabus Pt. 1, *Wilt v. Buracker*, 191 W. Va. 39, 443 S.E.2d 196 (1993), the court held:

Under Rule 702 of the West Virginia Rules of Evidence, there is a category of expert testimony based on scientific methodology that is so longstanding and generally recognized that it may be judicially noticed and, a trial court need not ascertain the basis for its reliability.

12. In *State v. Barker*, 366 S.E.2d 642 (W. Va. 1988), the court, applying the pre-*Wilt* standard, held that “[I]n order for a scientific test to be initially admissible, there must be general acceptance of the scientific principle which underlies the test.” Syl. Pt. 7, *State v. Clawson*, 165 W.Va. 588, 270 S.E.2d 659 (1980). [FN5] ***There are some scientific tests, such as ballistics tests, fingerprint identification, and blood tests, which are so general accepted in the scientific community that a trial court may take judicial notice of their reliability.***” 165 W.Va. 618, 270 S.E.2d at 676. (emphasis added).

Therefore, under the pre-*Wilt* test requiring general acceptance of the scientific principle, a much more stringent test necessary to demonstrate reliability than presented by WVRE 702, [see *State v. Leep*, 2002 WL 1358754 (W. Va. 2002)], the reliability of ballistic tests may be judicially noticed. Inasmuch of the scientific principle underlying ballistic tests, performed on bullets, cartridge casings and firearms, is the same principle underlying tool mark identification, the court is of the opinion that the reliability of the this proffered expert testimony may be judicially noticed. Syllabus Pt. 1. *Wilt v.*

Buracker, supra.

Even if the reliability of tool mark identification is not judicially noticed, the court is satisfied that the state has submitted sufficient evidence from which the court can conclude, in the gatekeeper role, that the expert opinion is reliable and not junk or novel science. This is based on the evidence presented that the theory underlying tool mark identification has been tested extensively and found to be accurate and reliable; that the theory has been subjected to peer review; while it is unclear whether there may be a high known or potential rate of error, there are stringent standards controlling who and how the tool mark identification process occurs; and, finally, that indeed the theory underlying tool mark identification enjoys general acceptance.

The defense memorandum of law cites *Ramirez v. State*, 810 So.2d 836 (FL 2002), for the proposition that inasmuch as there are no objective standards controlling

the examiner's determination, (it is a "match" because the examiner says that it is a "match"), the tool mark identification testimony should be excluded in this case. The *Ramirez* court, however, excluded "tool mark" identification evidence involving marks made in human cartilage. Applying the *Frye* standard, which is no longer applicable in West Virginia, the Florida Supreme Court rejected the expert evidence. It is not without significance, however, that the Florida court, in rejecting expert testimony that a particular knife was the murder weapon, notes at 810 So.2d 845, that:

[t]he theory underlying tool mark evidence, which is explained below, is generally accepted in the scientific community and has long been upheld by courts.

13. The testimony of the proffered witness relating to conclusions made from tool mark examination is not based solely on the *ipse dixit* of the examiner. While the discipline does not have a uniform standard defining "sufficient agreement", to conclude that the determination is entirely subjective is too narrow of a view of Mr. Reed's testimony regarding the tool mark identification process. He testified he looks for different contour, height, depth and individual characteristics of the items being examined. (Trp. 18); that he has studied thousands of "known matches" and "known non-matches" (Id); that he has studied comparison of marks left by tools sequentially manufactured, which leave some matching marks when viewed in the comparison microscope (Tr. 20); and, that determinations made by him have been subjected to peer review (12 tool mark cases). Proficiency review of his tool mark determinations did not reveal any errors (Tr. 25). The court is satisfied that the probative value of this testimony outweighs any prejudice or confusion. See WVRE 403. The objections relating to the subjective elements of tool mark identification, claimed unusually high error rates in the discipline and the like do not affect the admissibility of the evidence but are proper subjects of cross examination so that the Jury can determine the weight and credit to be given to this evidence.

For the foregoing reasons, the motion in limine to exclude the expert tool mark testimony offered by the State is **ORDERED** denied and overruled.

The Clerk is ordered to provide counsel of record with attested copies of this order.

ENTER: July 1, 2002

Thomas C. Evans III
Designated Judge
Fourth Judicial Circuit