

Questioned Documents Unit (QDU)

FBI Approved Standards for Scientific Testimony and Report Language for Forensic Examination of Footwear and Tire Impression Evidence

1 Purpose

This document provides examples of the scientifically-supported conclusions and opinions approved for reporting examination conclusions and offering expert opinion statements during footwear and tire impression testimony by examiners within QDU. It is noted that these examples are not intended to be all inclusive and may be dependent upon the precedent set by the judge or locality in which a testimony is provided. Further, these examples are not intended to serve as precedent for other forensic laboratories and do not imply that statements by other forensic laboratories are incorrect, indefensible, or erroneous.

2 Scope

This document applies to examiners in the QDU who prepare an *FBI Laboratory Report* (7-1, 7-1 LIMS) and/or provide expert witness testimony regarding the forensic examination of footwear/tire impression evidence. This policy is effective on the issue date of this document and is not retroactive to previously issued reports or testimony. This document provides the acceptable range of opinions expressed in both laboratory reports and during expert witness testimony while acknowledging that this document cannot address every variable in every examination.

3 Responsibilities

3.1 The examiner will ensure that the *Laboratory Report* complies with the statements set forth in this document.

3.2 The examiner will ensure that their expert witness testimony complies with the statements set forth in this document.

3.3 The technical reviewer will ensure that the *Laboratory Report* complies with the statements set forth in this document.

3.4 The technical reviewer will evaluate expert witness testimony to determine if such testimony complies with the statements set forth in this document.

4 Statements Approved for Use in Laboratory Reports and Expert Witness Testimony Regarding Forensic Examination of Footwear and Tire Impression Evidence

The following is the range of opinions approved for use by the examiner in both laboratory reports and when providing expert witness testimony.

4.1 Source Identification

4.1.1 'Source identification' is an examiner's conclusion that the known footwear item/tire made the questioned impression. This conclusion is an examiner's opinion that the known footwear item/tire and the questioned impression have corresponding class characteristics (i.e., design, physical size and wear) and one or more randomly acquired characteristics with no meaningful differences, and the observed corresponding characteristics are sufficient such that an examiner would not expect to see the same combination of characteristics repeated in a different footwear item/tire.

4.1.2 The basis for a 'source identification' conclusion is an examiner's opinion that the observed corresponding characteristics provide extremely strong support for the proposition that the known footwear item/tire made the questioned impression and extremely weak support for the proposition that a different footwear item/tire made the questioned impression.

4.1.3 A 'source identification' is the statement of an examiner's opinion (an inductive inference) that the probability that a different footwear item/tire made the questioned impression is so small that it is negligible.

4.2 Inclusion Based on Class and Randomly Acquired Characteristics

4.2.1 'Inclusion based on class and randomly acquired characteristics' is an examiner's conclusion that the known footwear item/tire probably made the questioned impression. This conclusion is an examiner's opinion that the known footwear item/tire and the questioned impression have corresponding class characteristics and one or more randomly acquired characteristics with no meaningful differences; however, there are limitations associated with the evidence that prevent an examiner from reaching a 'source identification' conclusion. For another footwear item/tire to have made the questioned impression, it would have to exhibit the same observed corresponding characteristics.

4.2.2 The basis for an 'inclusion based on class and randomly acquired characteristics' is an examiner's opinion that the observed corresponding characteristics provide strong support for the proposition that the known footwear item/tire made the questioned impression and weak support for the proposition that a different footwear item/tire made the questioned impression.

4.3 Inclusion Based on Class Characteristics

4.3.1 'Inclusion based on class characteristics' is an examiner's conclusion that the known footwear item/tire could have made the questioned impression.

4.3.2 The basis for an 'inclusion based on class characteristics' conclusion is an examiner's opinion that the known footwear item/tire and the questioned impression have observed corresponding class characteristics with no meaningful differences. There may be other footwear items/tires with characteristics that are indistinguishable from the known footwear item/tire that could have also made the questioned impression.

4.4 Inconclusive

4.4.1 'Inconclusive' is an examiner's conclusion that no determination can be reached as to whether the known footwear item/tire could or could not have made the questioned impression.

4.4.2 The basis for an 'inconclusive' conclusion is an examiner's opinion that there are limitations associated with the evidence that prevent an examiner from either including or excluding the known footwear item/tire as a possible source of the questioned impression.

4.5 Support for Exclusion

4.5.1 'Support for exclusion' is an examiner's conclusion that the known footwear item/tire probably did not make the questioned impression. This conclusion is an examiner's opinion that the known footwear item/tire and the questioned impression have different class characteristics and/or randomly acquired characteristics; however, there are limitations associated with the evidence that prevent an examiner from reaching a 'source exclusion' conclusion.

4.5.2 The basis for a 'support for exclusion' conclusion is an examiner's opinion that the observed characteristics provide strong support for the proposition that a different footwear item/tire made the questioned impression and weak support for the proposition that the known footwear item/tire made the questioned impression.

4.6 Source Exclusion

4.6.1 'Source exclusion' is an examiner's conclusion that the known footwear item/tire did not make the questioned impression. This conclusion is an examiner's opinion that the known footwear item/tire and the questioned impression have different class characteristics and/or randomly acquired characteristics.

4.6.2 The basis for a ‘source exclusion’ conclusion is an examiner’s opinion that the observed characteristics provide extremely strong support for the proposition that a different footwear item/tire made the questioned impression and extremely weak or no support for the proposition that the known footwear item/tire made the questioned impression.

5 Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony Regarding Forensic Examination of Footwear and Tire Impression Evidence

The following are not approved for use by the examiner; however, it is acknowledged that there may be circumstances outside the control of the examiner, such as in courts of law, which require the examiner to deviate from the statements set forth below.

5.1 Qualification for All Conclusions

A conclusion provided during testimony or in a report is ultimately the examiner’s decision and is not based on a statistically-derived or verified measurement or comparison to all other footwear items/tires. Therefore, the examiner shall not:

- assert that a ‘source identification’ or a ‘source exclusion’ conclusion is based on the ‘uniqueness’ of an item of evidence.
- use the terms ‘individualize’ or ‘individualization’ when describing a source conclusion.
- assert that the known item made the questioned impression to the exclusion of all other footwear items/tires.

5.2 Qualification for ‘Inclusion’ Conclusions

The examiner shall not provide either of the two ‘inclusion’ conclusions provided above unless the examiner also explains that there may be other footwear items/tires with characteristics that are indistinguishable from the known footwear item/tire that could have also made the questioned impression.

5.3 Error Rate

The examiner shall not assert that forensic footwear/tire examinations are infallible or have a zero error rate.

5.4 Statistical Weight

The examiner shall not provide a conclusion that includes a statistic or numerical degree of probability except when based on relevant and appropriate data.

5.5 Number of Examinations Performed

An examiner shall not cite the number of forensic footwear/tire examinations performed in his or her career as a direct measure for the accuracy of a conclusion provided. An examiner may cite the number of forensic footwear/tire examinations performed in his or her career for the purpose of establishing, defending, or describing his or her qualifications or experience.

5.6 Statements of Certainty

An examiner shall not assert that the known footwear item/tire made the questioned impression with absolute or 100% certainty, or use the expressions ‘reasonable degree of scientific certainty,’ ‘reasonable scientific certainty,’ or similar assertions of reasonable certainty in either reports or testimony unless required to do so by a judge or applicable law.

6 Laboratory Report Reviews

The *Laboratory Report* will be reviewed according to the *QDU Case Records and Review* to ensure compliance with the statements set forth in this document.

7 Testimony Reviews

Expert witness testimony will be reviewed according to the *FBI Laboratory Practices for Court Testimony Monitoring* to ensure compliance with the statements set forth in this document.

8 References

ASCLD/LAB-International Supplemental Requirement for the Accreditation of Forensic Science Testing and Calibration Laboratories. American Society of Crime Laboratory Directors/Laboratory Accreditation Board, Garner, NC, 2011

FBI Laboratory Quality Assurance Manual

FBI Laboratory Operations Manual

QDU Quality Assurance Manual

U.S. Department of Justice Uniform Language for Testimony and Reports for the Forensic Footwear Discipline

U.S. Department of Justice Uniform Language for Testimony and Reports for the Forensic Tire Discipline

Rev. #	Issue Date:	History:
1	03/01/18	Deleted FBI Laboratory Report of Examination. Added FBI Laboratory Report/Laboratory Report to Sections 2, 3.1, 3.3, and 6. Corrected QDU QAM(s) for Section 6. Grammatical correction at Section 5.
2	08/15/20	Sections 4 and 5 were updated to comply with approved ULTRs (approved on 06/08/2020). Section 8 was updated to include approved ULTRs.

Redacted - Signatures on File

Approval

Questioned Documents
Unit Chief

Date: 08/14/2020

Footwear/Tire
Technical Leader

Date: 08/14/2020

QA Approval

Quality Manager

Date: 08/14/2020