

	<b>TRACE-PM 14.0 Testimony</b>	
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	<i>Revision #: 1</i>	<i>Issued Date: 10/18/2018</i>
	<i>Document Manager: Cheryl Lozen</i>	<i>Approved By: Jeffrey Nye</i>

## Trace (Materials) Testimony Guidelines

This document provides the acceptable range of opinions expressed during expert witness testimony while acknowledging that this document cannot address every variable in every examination.

### Statements Approved for Expert Witness Testimony Regarding Forensic Examinations of Trace (Materials):

The examiner may report results of examinations and/or state opinions/conclusions about the presence or absence of a targeted chemical (e.g., bank dye chemicals, lubricants, pepper sprays). The examiner may state or imply the type of material (e.g., cotton, wool, silk).

The examiner may report and/or state an opinion as to the identification or chemical classification (if an identification was not achieved) of a substance. The examiner may also report and/or state potential uses of the substance or class of substances.

The examiner may report and/or state an opinion that the conclusions apply to the entirety of an item (or a percentage of the item) when there is a reasonable assumption of homogeneity of the item.

The examiner may report results of examinations and/or state opinions/conclusions regarding a chemical comparison that was performed between items, provided that the opinions/conclusions are supported by the appropriate chemical analyses.

An examiner may report and/or state an association between two or more items based on their physical and/or chemical properties.

An examiner may state that compared items exhibit physical features that demonstrate they were once part of the same object. This conclusion can only be reached when the examined items fit together in one or more of the following ways: along an irregular edge-to-edge border matched over a reasonable length; alignment of unique surface markings (or internal features); a three-dimensional fit.

For the large majority of comparisons, associations are limited to class characteristics and, as such, are not individualizing. The examiner may report and/or state the relative strength of an association. There are many potential gradations stating the strength of the association, depending upon the number of characteristics available for assessment, the number of orthogonal examinations able to be conducted, and the results obtained from the analyses conducted.

The examiner may report and/or state that additional significance may be given to examples of cross-transfer and/or if multiple types of evidence appear to have transferred from one source to another.

An examiner may report and/or state the likely manufacturer based on resources available to the laboratory (e.g., databases, industry contacts). For example, an examiner may report make-model-model year possibilities of an original equipment manufacturer paint system.

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An examiner may report and/or state the manufacturing process used to produce an item and may explain the variability possible between products.

An examiner may report and/or state the batch size involved in production, such as how many single rolls can be produced from a jumbo duct tape roll or how many vehicles from an assembly line might contain the same paint layer system.

An examiner may report and/or state the application process used when the physical characteristics permit such an inference. For example, an examiner may indicate that a paint was spray applied to a surface.

The examiner may report and/or state the limitations of his/her examinations and opinions.

**Statements Not Approved for Expert Witness Testimony Regarding Forensic Examinations of Trace (Materials):**

An examiner shall not assert that the analysis/examination is infallible or has a zero error rate.

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

The examiner may not report or state an opinion that definitively concludes how a chemical originated on/within an item or how long that chemical has been there.

An examiner may not state or imply that two or more broken items/fragments were once part of the same object unless the items/fragments physically fit together (fracture match).

The examiner may not state that an item/fragment came from a particular source to the exclusion of all other sources.

The examiner may not state an association between a questioned item and a source without qualifying the association.

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

An examiner shall not 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.