



Range of Conclusions and Significance of the Results

It is possible for firearms to be altered or parts replaced, and these alterations may not be apparent. If items are identified or eliminated as having been fired in a firearm, it is important to note it is in that firearm *as received by HFSC*.

Identification*: Agreement of all discernable class characteristics and a sufficient correspondence of individual characteristics will lead the examiner to the conclusion that both items (evidence and tests) originated from the same source.

*Identification means that in the examiner's opinion, it is extremely unlikely any other firearm is capable of producing the markings used in forming their conclusion.

In this context, the judgement of "extremely unlikely" is based on:

- Extensive empirical research and validation studies that have been conducted in the field

AND

- The cumulative results of training and the casework examinations that have either been performed, peer reviewed, or published in a peer-reviewed forensic journal

Inconclusive: Agreement of any/all discernable class characteristics but a lack of agreement or disagreement of individual characteristics will lead the examiner to the conclusion that they cannot determine if the items are from the same or different sources.

Elimination: A disagreement of class characteristics will lead the examiner to the conclusion that the items did not originate from the same source. In some instances, it may be possible to support a finding of elimination even though the class characteristics are similar when there is marked disagreement of individual characteristics.

Unsuitable: A lack of (or very poor quality) class or individual markings from the firing process will lead the examiner to determine that they cannot form any sort of source conclusion (identification, elimination, or inconclusive) about the item.

Insufficient: There may be times when an examiner may not feel that an item is not suitable for comparison but does not conform to the definition of unsuitable. In this instance, an analyst may make a determination of "insufficient". A conclusion of insufficient is rendered when examining a single item, not a comparison between two items. Examiners may render an opinion that markings on an item are insufficient when:

- An item has discernible class characteristics and no (or very few) individual characteristics but is useful for elimination conclusions.
- The examiner cannot determine if markings are individual or subclass. Insufficient should only be used in this instance if no individual markings can be found. If only some markings are potentially subclass in nature, it is noted in the case record, but the item(s) may still be compared.