

Technical Note

Documenting and Reporting Inconclusive Results

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Abstract: In a latent print unit, documenting and reporting identifications and exclusions is relatively straightforward. Inconclusive results, however, tend to be a bit more challenging because the meaning of and reason for the inconclusive result can be so varied. It has been the author's experience that many agencies and latent print analysts struggle with the documentation and reporting of inconclusive results. The purpose of this paper is to share one method of defining, documenting, and reporting inconclusive results that the author has found successful in a latent print unit. The author also recommends some quality assurance procedures associated with inconclusive results.

Introduction

The use of "inconclusive" is dependent upon how the agency makes the "suitability" determination for latent prints [1]. If the agency only permits the analyst to render conclusions on latent prints that are suitable for identification, then inconclusive results can only be due to problems with the exemplar prints. If the agency permits the analyst to render conclusions on latent prints that are suitable for identification or exclusion, then inconclusive results may occur because of problems with the latent print or the exemplar print. Even though these approaches to "suitability" are different, there are still different reasons why the result is inconclusive, and there is a more descriptive manner

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to document and report these results. Based on the ability to indicate latent prints that are suitable for identification or exclusion, inconclusive results can be broken down into the following three categories: cannot exclude, incomplete, and not compared.

Cannot Exclude

A “cannot exclude” result (Figure 1) will occur when the latent print has detail consistent with the exemplar prints; however, it is insufficient to identify the source because of the quality or quantity of the latent print. There is data to support the conclusion that the latent print and the exemplar print were made by the same source; however, the selectivity of the available corresponding data is not strong enough to disregard the possibility that another source could have left the print. In other words, the latent print is not clear enough, lacks sufficient surface area or minutiae, or displays an inconsistency that the analyst cannot interpret.

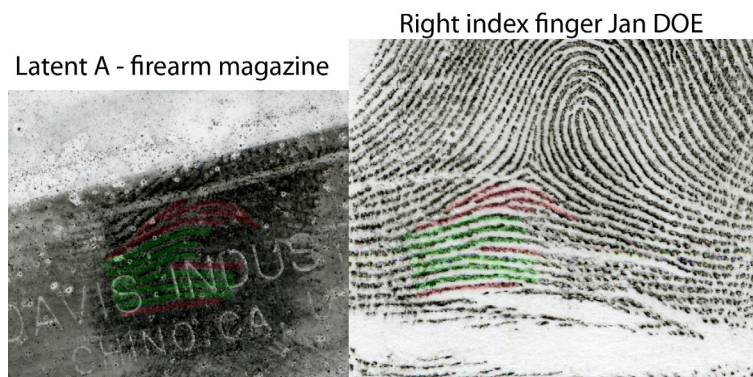


Figure 1

Example of marked-up images of a latent print and exemplar print. The result of this comparison to Jane DOE was “cannot exclude”.

If an analyst reaches a “cannot exclude” result, the subject’s name and the anatomical region that was found to have similar detail should be clearly indicated in the notes, and the notes should reflect why the analyst was unable to exclude the person. The case analyst should include marked-up images in the case file that demonstrate the consistent detail and any areas of concern in the latent print that are preventing a definitive conclusion. A “cannot exclude” result is generally a complex examination and should follow more intense documentation standards [2]. “Cannot exclude” results should be verified by another analyst because the subject is being included as a potential source of the print and, again, because the comparison is likely complex. If there are additional subjects compared in the case, the results of these comparisons should be documented, verified, and reported as well. An example of reporting language for Figure 1 is as follows:

Latent A – Jane DOE could not be excluded. Limited detail was found consistent with the right index finger of Jane DOE; however, the quantity of the detail in the latent print was insufficient to render a definitive conclusion. John DOE and Bob SMITH were excluded.

Incomplete

An “incomplete” result (Figure 2) will occur when the exemplar prints are inadequate (quantity or quality). The latent print may or may not have limited detail consistent with the exemplar prints. Additional exemplar prints will be required and may permit the analyst to reach a definitive conclusion. It has been the author’s experience that unclear or incomplete exemplar prints are a common problem for many latent print analysts.

For each latent print compared with “incomplete” results, the notes should reflect the subject’s name, whether any detail was found consistent with the exemplars (including the anatomical region if detail was found consistent), and the additional exemplars needed to complete the comparison. It is suggested that “incomplete” comparisons, particularly if detail is found consistent, be verified by another analyst. If there are additional subjects compared in the case, the results of these comparisons should be documented, verified, and reported as well. Two examples of reporting language for “incomplete” comparisons are as follows:

Latent B – The comparison to Jane DOE was incomplete. Limited detail was found consistent with the right middle finger of Jane DOE; a fully rolled impression of the medial segment of the right middle finger may result in a definitive conclusion. John DOE and Bob SMITH were excluded.

Latent C – The comparisons to Jane DOE and John DOE were incomplete. No detail was found consistent with Jane DOE or John DOE; exemplars of the carpal delta regions of the palms of Jane DOE and John DOE may result in definitive conclusions. Bob SMITH was excluded.

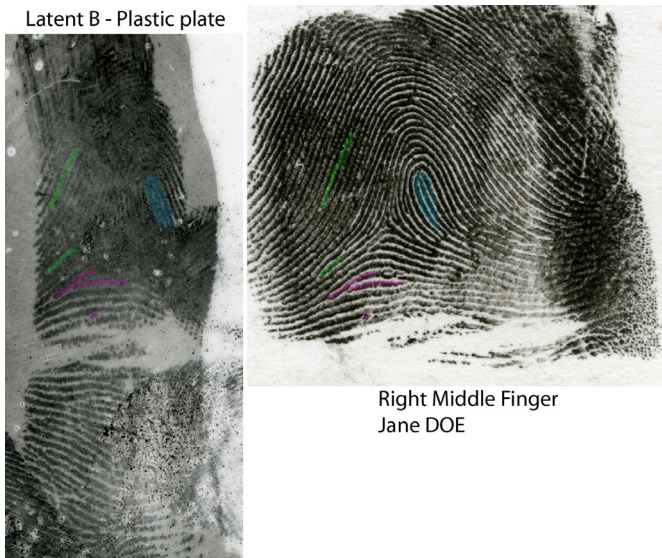


Figure 2

Example of an “incomplete” comparison with limited detail consistent with the exemplar prints. Additional exemplars of the medial segment of the right middle finger are needed to complete the comparison.

Not Compared

If a latent print contains an anatomical region that is not recorded in the exemplar prints, or there are no exemplar prints, no comparisons are possible. For example, the latent print is a palm print and there are no palm exemplars available.

For each latent print not compared, the notes should reflect the name(s) of the subject(s) not compared and the exemplar prints needed to perform a comparison. An example of reporting language is as follows:

Latent D – Jane DOE and John DOE were not compared; no palm exemplars available. Bob SMITH was excluded.

Conclusion

The ability to clearly articulate the reason for an inconclusive result is becoming more imperative. ISO/IEC 17025:2005(E) General Requirements for the Competence of Testing and Calibration Laboratories states in section 5.10.1, “The results of each test, calibration, or series of tests or calibrations carried out by the laboratory shall be reported accurately, clearly, unambiguously and objectively, and in accordance with any specific instructions in the test or calibration methods.” [3] ASCLD/LAB-International Supplemental Requirements for the Accreditation of Forensic Science Testing Laboratories 2011 Edition states in section 5.10.3.5, “When associations are made, the significance of the association shall be communicated clearly and qualified properly in the report.” [4] This ASCLD/LAB-International document goes on to state in section 5.10.3.7, “When no definitive conclusions can be reached, the report shall clearly communicate the reason(s).” [4]

The three categories of inconclusive results described in this article have been implemented successfully at the Las Vegas Metropolitan Police Department (LVMPD) Forensic Laboratory. The analysts in the LVMPD Latent Print Detail have found that reporting inconclusive results in this manner has alleviated ambiguity in both the reporting process and in court testimony. It is recognized that this is only one method for addressing inconclusive results; however, it may be of assistance to those agencies or analysts struggling to articulate, document, and report inconclusive results.

For additional information, please contact:

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References

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2. SWGFAST. Standard For the Documentation of Analysis, Comparison, Evaluation, and Verification (ACE-V), ver. 1.0, 2010, (accessed December 13, 2010).
3. ISO/IEC 17025:2005(E) General Requirements for the Competence of Testing and Calibration Laboratories, 2nd Edition, 5/15/2005.
4. ASCLD/LAB-International Supplemental Requirements for the Accreditation of Forensic Science Testing Laboratories 2011 Edition, Approved September 11, 2010.