

**QD SOP-13 Procedure for Examination of Mechanical
Check Writer Impressions**

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Effective Date: 4/13/2016
Status: Retired
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Approved by Director: Dr. Guy Vallaro

Purpose: Procedure for Examination of Mechanical Check-writer Impressions

This procedure provides guidance to be used by forensic document examiners for examinations and comparisons involving mechanical check-writers and their impressions (exclusive of rubber stamp check-writer impressions or computer generated check-writer impressions). These procedures are applicable whether the examination(s) and comparison(s) are of Questioned and Known items or of exclusively Questioned items. These procedures include evaluation of the sufficiency of the material available for examination.

The procedures outlined here are grounded in the generally accepted body of knowledge and experience in the field of forensic document examination. By following these procedures, a forensic document examiner can reliably reach an opinion concerning whether two or more impressions were created by the same check-writer, whether a particular check-writer created the specific impression, or the determination of the make and model of check-writer that made an impression.

Items submitted for examination may have inherent limitations on analysis that can interfere with these procedures. Limitations should be noted and recorded. Limitations can be due to submission of non-original documents, limited quantity or comparability, or condition of the items submitted for examination (for example, impressions made with over-inked or inadequately inked check-writers, partially imprinted impressions, or variations in surface texture). Prior storage and handling or chemical processing (for example, for latent prints and swabbing for DNA) can interfere with the examination of certain characteristics. The effects can include, but are not limited to, flattening of the embossment or impression, partial destruction of the paper, stains, and deterioration of the ink. Whenever possible, document examinations should be conducted prior to any chemical processing. Items should be handled appropriately to avoid compromising subsequent examinations.

Responsibility:

Forensic Science Examiners assigned to the Questioned Documents Unit or performing casework in the Unit

Equipment:

1. Lighting (natural, fluorescent) and alternate light sources
Lighting may include the use of transmitted, side or vertical lighting to improve the ability to view fine details.
2. Stereomicroscopes with fiber-optic lighting
3. Video Spectral Comparator

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4. Electrostatic Detection Apparatus
5. Measuring devices
6. Scanners
7. Cameras

Procedure:

1. Examine subject document(s) using oblique illumination and photograph any visible impressions and/or image. In some instances, the use of side lighting in a room with subdued light may provide better visualization of impressions.

Document any impressions observed on the QR DOC-2. If impressions are not observed, document the lack of visible impressions. At various points in these procedures, a determination that a particular feature is not present or that an item is lacking in quality or comparability may indicate that the examiner should discontinue or limit the procedure(s). It is at the discretion of the examiner to discontinue the procedure at that point and report accordingly or to continue with the applicable procedures to the extent possible. The reasons for such a decision shall be documented on the QR DOC-2 and/or in case notes.

2. Determine whether the submitted Questioned impression(s) were produced by a check-writer. If not a check-writer impression (original or copy), discontinue examination and report accordingly.
3. Determine whether the examination is a comparison of Questioned impressions; a comparison of a Questioned impression(s) with a Known impression(s); or a comparison of a Questioned impression(s) with a check-writer(s).

Determine whether the submitted Questioned impression(s) is suitable for comparison. If it is not suitable for comparison, discontinue the procedure and report accordingly. Factors that affect the suitability include clarity, detail, degree of inking or condition of the document. Examination of the original is preferable and consideration should be given to obtaining the original, if not submitted.

4. If a Known document(s) is submitted, determine whether the Known document(s) is suitable for examination, or comparison, or both. If it is not suitable, discontinue the procedure and report accordingly. Factors that affect the suitability include clarity, detail, or condition of the document.
5. If the original is not submitted, evaluate the quality of the best available reproduction to determine whether significant details have been reproduced with sufficient clarity for comparison purposes

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and proceed to the extent possible. If the reproduction is not of sufficient clarity for comparison purposes, discontinue these procedures and report accordingly.

6. If a check-writer(s) is submitted, its condition should be noted. If possible, research the manufacturer's manual and produce exemplars for comparison. Determine if any of the Known exemplar impressions are suitable for comparison.

If none of the Known specimen impressions are suitable for comparison and no others are obtained, discontinue these procedures and report accordingly.

7. If the evidence submitted is considered suitable for comparison, conduct a side-by-side comparison of the Questioned impressions, or the Questioned impression to the Known impressions and/or to the check-writer(s).

Documentation of side-by-side comparisons with photographs should be made if possible.

8. Compare class characteristics (for example, the impression format, typeface design and size, printing element characters, prefix, payee perforator, platen impressions and inking system.). If different, discontinue and report accordingly.

It should be noted that, prefixes may be removed and replaced in certain machines. Payee perforator may be inactivated. These factors should be considered in any evaluation of characteristics. Individual prefixes may be unique to one machine. Manufacturers may also have records of the original purchaser of a certain individual prefix. This information may be provided to the investigating officer to obtain the necessary materials through legal requests.

9. Compare individualizing characteristics in common such as wear and damage defects, perforation patterns, misalignments, reproducible blemishes, ribbon shift, impression voids, improper inking, extraneous inking, and individual prefix features.
10. After evaluating the similarities, differences, and limitations presented in the evidence submitted. Determine their significance individually and in combination. The examiner will then reach a conclusion and report accordingly.
11. Conclusion(s), opinion(s), or findings resulting from these procedures may be reached once sufficient examinations have been conducted. The number and nature of the necessary examinations is dependent on the evidence presented and the examiner's findings.

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The bases and reasons for the conclusion(s), opinion(s), or findings should be included in the examiner's case notes or on QR DOC-2 and may also appear in the report. The final conclusions may consist of the following:

- 1) **Identification**—When the examination reveals no significant, inexplicable differences between two or more items and there is significant agreement in all individualizing characteristics, an identification is appropriate (that is, compared impressions or compared impression and check-writer contain substantial significant characteristic similarities; there are no significant, inexplicable differences; and no limitations associated with absent characteristics).
- 2) **Elimination**—If significant, inexplicable differences between two or more items are found at any level of the analyses, an elimination is appropriate (that is, the impressions contain substantial significant differences; and there may be limitations associated with absent characters or individualizing characteristics; there may be similarities).
- 3) **Qualified Opinions**—When there are limiting factors and the examination reveals similarities or differences of limited significance between two or more items, the use of qualified opinions can be appropriate (that is, the impressions or observed features contain limited similarities or differences; or limitations associated with absent characters, individualizing characteristics, or distorted impressions are present or; a combination of these). Qualified opinions require explanation of the limiting factors in the report.
- 4) **No Conclusion/Inconclusive**—When there are significant limiting factors, a report that no conclusion can be reached is appropriate. This opinion requires explanation of the limiting factors to be included in the report.

Sources of Error: Not applicable

References:

SWGDOC Standard for Examination of Mechanical Checkwriter Impressions ver. 2013-1