

## DOCUMENTS/FORGERY ANALYSIS TEAM

### BACKGROUND:

---

Some document alterations are obvious at first glance. Subtler alterations may be revealed by microscopic analysis, by examining the document under and alternate light source, or by chemical treatment. We will apply these treatments to our submitted document while, at the same time, bearing in mind the two basic methods of document alteration:

- **Adds:** Handwritten material *added* to an existing document may be analyzed by a handwriting examiner to determine if the questioned text was actually written by the person implied in the document. On the other hand, handwriting analysis can be extremely subjective and frequently challenged in a courtroom situation. For this reason, a final determination of the validity of questioned handwritten text usually comes down to chemical analysis.
- **Deletes:** Text may be removed from a document by physical means such as erasure or by chemical bleaching. Either method, no matter how carefully done, leaves traces that can be identified by careful examination by visible light or by chemical tests.

### PART I: GATHERING EVIDENCE

---

Once your team has been established, break off into pairs and assign each pair to one of the other crime scenes: Hair, Fiber, Glass/Plastic, Fingerprints, and Soil. Each pair will cooperate with the investigating team present to uncover any traces of documentation left at the crime scene. A criminal not wanting to leave a trail may have destroyed evidence so don't expect any recovered documents to be intact.

**ALL DOCUMENT-RELATED EVIDENCE GOES TO YOUR TEAM ONLY!**

Collect this evidence and regroup with your team for further analysis. Don't forget to observe the following protocol:

- ✓ Wear gloves, lab coats, and shoe covers before entering the crime scene.
- ✓ When locating evidence, **carefully** remove the specimen and place it in an evidence bag (if possible).
- ✓ After locating evidence, note all details in your EVIDENCE LOG.
- ✓ Check the bottoms of your shoe covers for evidence that you may have accidentally stepped on or missed.

## PART II: EXAMINING DOCUMENTS

---

### VISUAL EXAMINATION

1. If the document is not intact, DO NOT piece it back together yet.
2. On the BACK of the document (where no handwriting is visible), lightly label each piece A, B, C, ..., etc. Note this in your EVIDENCE LOG.
3. Visually observe the individual pieces of the document for possible marks (e.g. eraser, scratches) that could indicate tampering.

### UV LIGHT EXAMINATION

4. Based on the visual inspection from step 3, observe each piece of the document under the UV light source and note any signs of tampering in your EVIDENCE LOG.
5. Circle these possible tampering areas lightly with a pencil.

### MICROSCOPIC EXAMINATION

6. Examine your questioned document under the microscope.
  - a. Play with the different magnifications until you are able to clearly identify the fibers of the document.
  - b. Look for changes in the pattern of the fibers via crushed, broken, or abraded fibers as these are possible indicators of tampering.

## CHEMICAL TREATMENT & EXAMINATION

7. If you haven't already done so, put on your gloves and goggles.
8. Place the document on a flat surface and, using the small spray bottle (filled with ethanol), spray the questionable areas of the document (circled in pencil) with a **fine** mist. Spray until the document is slightly dampened. Any alterations should be lightly visible within a few seconds.
9. Note any final observations in your EVIDENCE LOG.
10. Finally, piece the document together for further clues and answer the following review questions:

- a. Why would physically altering a document (e.g. erasing) be inferior to any other method of document forgery?

---

---

---

---

- b. At which stage of examination (magnification, visual, UV) did you get before you were able to detect alterations in the document?

---

---

---

---

- c. Are there any results that still remain inconclusive? If so, describe.

---

---

---

---

## PART III: REVIEW THE POLICE REPORTS

---

Over the next few pages, your team will need to review the official police report of the crime as well as witness interviews. Some witness accounts will contradict others so it's your job to determine, based on your understanding of the evidence your team collected, who could be an innocent bystander and who could be a suspect.

### **DO NOT CONVERSE WITH OTHER ANALYSIS TEAMS AT THIS TIME!**

You must form your own conclusions as a team first. If it helps, use the following analysis techniques:

- ✓ Note the WHO, WHAT, WHERE, and WHEN of the witness accounts.
- ✓ What are the relationships between witnesses?
- ✓ Create a timeline of where witnesses were at the time of the crime.

Use this space for notes and brainstorming...

## PART IV: CONSULT YOUR PEERS

---

As a team, consult with **one** other analysis team that you feel may enhance your investigation (e.g. Hair and Fiber Analysis). Ask and answer the following questions:

Analysis team being consulted? \_\_\_\_\_

What physical evidence did this team gather? \_\_\_\_\_

What techniques did this team use to analyze their evidence?

---

---

---

What conclusions did this team arrive at? Why?

---

---

---

After consulting with the other analysis team, how does this change your original conclusions? Why?

---

---

---

## PART V: CONCLUDING ANALYSIS

---

As soon as everyone has had a chance to converse with other investigative teams, we will all gather together and draw our final conclusions.