



ATF-LS-FB21 Swabbing Evidence for DNA Analysis.docm	Published Online: March 2018
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1. Scope

This method describes how to sample evidence items for potential biological material suitable for DNA analysis. Evidence sampling should be performed by qualified personnel who have been trained and tested to competency in the DNA collection process.

Laboratory Services Forensic Biology functions are housed at the Forensic Science Laboratory – Washington (FSL-W); however, each of the ATF forensic science laboratories is capable of collecting and preserving potential DNA evidence. The DNA samples, or on occasion the actual items of evidence, are forwarded to the FSL-W for DNA analysis.

2. References

- 2.1. D. Sweet, M. Lorente, J.A. Lorente, A. Valenzuela, E. Villanueva, An improved method to recover saliva from human skin: the double swab method, J. Forensic Sci. 42 (1997) 320-322.
- 2.2. ATF-LS-4.4 Review of Requests for Laboratory Testing.
- 2.3. ATF Forensic Science Laboratory – San Francisco (FSL-SF) Safety Manual.
- 2.4. ATF Forensic Science Laboratory – Atlanta (FSL-A) Safety Manual.
- 2.5. ATF Forensic Science Laboratory – Washington (FSL-W) Safety Program and Chemical Hygiene Plan.
- 2.6. DNA Swabbing Guidelines and Examples, ATF training PowerPoint, current version.

3. Equipment

- 3.1. Disposable gloves
- 3.2. Lab coat
- 3.3. Eye protection
- 3.4. 10% bleach solution
- 3.5. 70% EtOH
- 3.6. Bench paper
- 3.7. Sterile water or other approved wetting solution
- 3.8. Sterile cotton-tipped applicators or other approved collection device
- 3.9. Appropriate packaging material (swab box, paper envelope, plastic tube)
- 3.10. Evidence tape
- 3.11. Scissors/tweezers
- 3.12. Razor blades

4. Safety/Quality Assurance

- 4.1. Disposable gloves shall be worn when handling swabs and evidence.
- 4.2. Lab coat and eye protection should be worn at all times while performing this procedure.
- 4.3. When practical, only one item of evidence shall be open at a time.
- 4.4. Reference samples shall be examined in a dedicated workspace.
- 4.5. Any utensils used to cut or manipulate the evidence must be cleaned between uses with 10% bleach solution and followed by 70% ethanol or alcohol wipe.
- 4.6. The laboratory bench surface shall be cleaned before and after each use with 10% bleach solution or other sanitizing agent and may be followed by 70% ethanol. Fresh bench paper shall then be placed on the surface prior to evidence examination.

Section 5 and Section 7.1.4.1.2. of this document (Procedures) have been redacted in accordance with Freedom Of Information Act (5 U.S.C. § 552) Exemption 7(E) as the release would disclose techniques and procedures for law enforcement investigations or prosecutions, or would disclose guidelines for law enforcement investigations or prosecutions which could reasonably be expected to risk circumvention of the law. The public disclosure of the information in Section 5 could reduce or even nullify the effectiveness of laboratory procedures.

5. Procedure

[REDACTED]

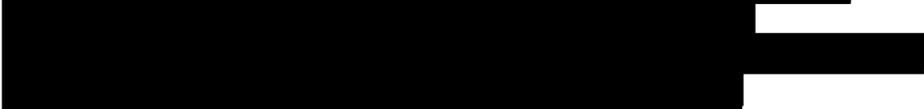


6. Writing DNA Collection Notifications

- 6.1. Once DNA collection activities have been completed for a case or submission, a *DNA Collection Notification* will be generated.
 - 6.1.1. Examiners from other disciplines authorized to perform DNA collection can include the *DNA Collection Notification* within laboratory reports of examinations.
 - 6.1.2. If a DNA Examiner is performing DNA collection and proceeding right into DNA analysis, a *DNA Collection Notification* is not required.
- 6.2. **DNA Collection Notifications are not reports of scientific findings; rather they are a means of communicating to the submitter that the request for DNA collection has been fulfilled.**

7. Independent DNA Collection Notifications

- 7.1. Independent *DNA Collection Notifications* will be issued to the submitter via email (see Appendix 1 for an example). This email will include the following sections:
 - 7.1.1. **Header** – This section contains the ATF Laboratory Number, the ATF Investigation Number, and the Title of Investigation.
 - 7.1.2. **Introduction Statement** – This section contains the date and method by which the evidence was delivered to the laboratory.
 - 7.1.3. **Exhibits section** – This section contains the exhibits evaluated for DNA Collection.
 - 7.1.4. **DNA Sample Collection section** – This section contains the exhibit numbers that were sampled for DNA, along with Sub-exhibits generated.
 - 7.1.4.1. If an exhibit does not meet the criteria for DNA collection, it will be noted in this section along with the reason. The following reasons will be used:
 - 7.1.4.1.1. **“due to the _____ condition of the evidence”**
This statement is used when the evidence is badly damaged, rusted, burnt, or consists of numerous, very small pieces. If it were in better/different condition, this type of evidence would normally be sampled for DNA. A description of the condition will be inserted so the investigating agent knows why the exhibit could not be sampled for DNA.

 - 7.1.4.1.2. 
 - 7.1.4.1.3. **“no areas suitable for DNA collection were observed”**
This statement is used when an exhibit has been evaluated and no areas of possible ridge detail, smears or smudging are observed. In addition, there are no areas where someone would normally handle the exhibit. This reason should be used rarely.
 - 7.1.5. **Disposition section** – This section contains a description of what was done with the collected DNA samples and the evidence that was sampled.
 - 7.1.5.1. DNA samples or evidence will typically be “forwarded to the Forensic Science Laboratory – Washington for DNA analysis” or “returned to the investigating agent.” Other wording may be used as appropriate.
 - 7.1.5.2. If a DNA sample or evidence that could reasonably be expected to still have DNA present (i.e. a shirt) is returned to the investigating agent, a statement explaining

retention of biological evidence will be included.

8. DNA Collection Notifications within a Laboratory Report

- 8.1. When *DNA Collection Notification* is included as part of a laboratory examination report, the DNA collection activities shall be listed in the Examination/Analysis and Interpretation of Results Section (see Appendix 2 for an example).
 - 8.1.1. If an exhibit does not meet the criteria for DNA collection, it will be noted in this section along with the reason. See 7.1.4.1 for approved reasons.
- 8.2. The Disposition Section of the Laboratory Report will contain the disposition of the evidence and the DNA samples taken during DNA collection.
 - 8.2.1. DNA samples or evidence will typically be **“forwarded to the Forensic Science Laboratory – Washington for DNA analysis”** or **“returned to the investigating agent.”** Other wording may be used as appropriate.
 - 8.2.2. If a DNA sample or evidence that could reasonably be expected to still have DNA present (i.e. a shirt) is returned to the investigating agent, a statement explaining retention of biological evidence will be included.
 - 8.2.2.1. NOTE: Exhibit X may potentially contain biological evidence subject to specific storage and preservation requirements. Please reference ATF O 3400.1D and the ATF Property Taken into Bureau Custody Manual to review the storage and preservation requirements of this evidence for the purposes of future DNA analysis.

9. Technical/Administrative Review of Notifications

- 9.1. Prior to sending the notification email or the laboratory report containing a *DNA Collection Notification* to the investigating agent, the printed draft notification email or the draft laboratory report and all associated DNA collection case records shall undergo a technical review and an administrative review using the *DNA Collection Review Form* (ATF-LS-F-5.9.4 C).
- 9.2. The technical review shall be conducted by an individual qualified to perform DNA Collection activities. The administrative reviewer shall be a Section Chief or an employee authorized by laboratory management. The technical and administrative reviews for DNA collection can be conducted by the same individual.
- 9.3. The completion of the technical and administrative review is documented by the initials of the reviewer(s) on the completed *DNA Collection Review Form*.
 - 9.3.1. If the notification is through email, the initials of the technical and administrative reviewer(s) shall also be included on the printed draft notification email. After completion of the review, the email will be sent. A copy of the draft and sent emails will be maintained with the case record.
 - 9.3.2. If the notification is included as part of a laboratory examination report, the *DNA Collection Review Form* will be used in addition to the appropriate review form for the laboratory examination.

Appendix 1: Sample DNA Collection Notification

Email Subject: DNA Collection Notification for ATF Lab# (ATF IN)

ATF Laboratory Number: xxxxx

ATF IN: xxxxx

Title of Investigation: Attempted Murder

Special Agent / Task Force Officer xxxxx,

The evidence described below was received on August 2, 2016, by FedEx number xxxx xxxx xxxx:

EXHIBITS

- 1 One 9mm Glock pistol, Serial number 12343
- 2 One gas can
- 3 One cloth

DNA SAMPLE COLLECTION

Exhibits 1 and 3 were sampled for DNA analysis. The DNA samples were designated 1.Q1 through 1.Q4, 3.Q1 and 3.Q2.

The gas can (Exhibit 2) is not suitable for DNA Collection due to the melted/burned condition of the evidence.

DISPOSITION OF EVIDENCE

The DNA samples listed above will be forwarded to the ATF Forensic Science Laboratory – Washington for DNA analysis. The remaining evidence will be returned to the investigating agent.

NOTE: Exhibit 3 may potentially contain biological evidence subject to specific storage and preservation requirements. Please reference ATF O 3400.1D and the ATF Property Taken into Bureau Custody Manual to review the storage and preservation requirements of this evidence for the purposes of future DNA analysis.

Joe Swabber

Job Title

Bureau of Alcohol, Tobacco, Firearms and Explosives

Forensic Science Laboratory

Office: (xxx) xxx-xxxx

Appendix 2: Sample Laboratory Examination Report including DNA collection

Special Agent xxxxx
1000 1st Avenue, NE
Suite 101
Beltsville, MD 20705

Date of Report: xxxxxx
Lab Number: xxxxxxxx
Reference: xxxxxx-xx-xxxx
Title: Attempted Murder
Type of Exam: Fingerprint, DNA Collection

The evidence described below was received on xx/xx/xx, by FedEx # xxxx xxxx xxxx:

EXHIBITS

- 1 One 9mm Glock pistol, Serial number 12343
- 2 One gas can
- 3 One cloth

EXAMINATION/ANALYSIS AND INTERPRETATION OF RESULTS

Exhibits 1 and 2 were processed and examined for the presence of identifiable latent prints with negative results.

DNA SAMPLE COLLECTION

Exhibits 1 and 3 were sampled for DNA analysis. The DNA samples were designated 1.Q1 through 1.Q4, 3.Q1 and 3.Q2.

The gas can (Exhibit 2) is not suitable for DNA Collection due to the melted/burned condition of the evidence.

DISPOSITION OF EVIDENCE

The DNA samples listed above will be forwarded to the ATF Forensic Science Laboratory – Washington for DNA analysis. The submitted exhibits are being returned to the contributor.

Joe Analyst
Fingerprint Specialist

REVIEWED BY:

Bob Smith
Chief, Identification Section