

DNA Procedures for Reporting Serological Testing Results

1 Scope

These procedures apply to DNA personnel who prepare *Laboratory Reports* (7-1, 7-1 LIMS, 7-273, or 7-273 LIMS) containing serological testing results.

2 Reporting Guidelines

As a part of its quality program, the DNA Units have developed standard operating procedures (SOPs) for the various testing methods used in the serological examination of evidence in the DNA Casework Unit (DCU) and the Biometrics Analysis Unit (BAU). The combination of the results from different procedures must be taken into account for the examiner to develop a conclusion.

To report the results of serology examinations, the examiner must consider all tests conducted. Combinations of negative, positive, and inconclusive test results not described below may be encountered, or one of the tests may not have been conducted (e.g., for the purposes of sample conservation). In such cases, the statements below should be used for guidance as to how to report the specific combination of results encountered.

Requirements for the formatting and administrative content of *Laboratory Reports* are contained in the FBI Laboratory Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records in Forensic Advantage and the DNA Procedures for Case File Assembly and Reviews. Results of serology and DNA testing may be combined into a single *Laboratory Report*.

2.1 Reporting Blood Examination Results

The determination of whether blood is present on an item is dependent on the results of a visual examination, the phenolphthalin test, and/or the Takayama test. The report should generally use the following language based on the combination of these test results.¹

2.1.1 Negative Blood Results

2.1.1.1 When the item is visually examined and no areas of serological value were observed and/or further tested, the following statement should generally be included in the report:

A visual examination was conducted on item 1; however, no areas of serological value were observed.

¹ For a given item of evidence, only the results for the stain on that specimen that yielded the most information with respect to the blood examinations conducted are reported.

It is noted that if any other blood examination(s) are conducted, the results of the visual examination are not reported.

2.1.1.2 When the phenolphthalin test is negative for an item and the Takayama test is not conducted, the following statement should generally be included in the report:

*Blood was not detected on item 2.**

with the following explanatory endnote:

** This conclusion is based on a negative presumptive test. Insufficient quality and/or quantity of biological material may affect the ability to detect blood.*

2.1.2 Presumptively Positive Blood Results

When the phenolphthalin test is positive for an item and the Takayama test is either not conducted or negative, the following statement should generally be included in the report:

*Blood was indicated on item 3.**

with one of the following explanatory endnotes, as appropriate:

**This conclusion is based on a positive presumptive test. Further confirmatory testing was not conducted. This result provides an indication that blood may be present on an item, but does not constitute an identification of blood. Insufficient quality and/or quantity of biological material may affect the ability to detect blood.*

**This conclusion is based on a positive presumptive test and a negative confirmatory test. These results provide an indication that blood may be present on an item, but do not constitute an identification of blood. Insufficient quality and/or quantity of biological material may affect the ability to detect blood.*

2.1.3 Confirmatory Blood Results

When the Takayama test is positive for an item, regardless of the results of the phenolphthalin test, the following statement should generally be included in the report:

*Blood was identified on item 4.**

with one of the following explanatory endnotes, as appropriate:

**This conclusion is based on positive results for both the presumptive and confirmatory tests.*

**This conclusion is based on a positive result for the confirmatory test. The presumptive test was inconclusive, which may occur when an unknown substance(s)*

prevented the interpretation of the presumptive test.

2.1.4 Inconclusive Blood Results

When the phenolphthalin test is inconclusive for an item and the Takayama test is either negative or not conducted, the following statement should generally be included in the report:

No determination can be made regarding the presence or absence of blood on item 5..*

with one of the following explanatory endnotes, as appropriate:

**This conclusion is based on an inconclusive presumptive test, which may occur when an unknown substance(s) prevented the interpretation of the presumptive test.*

**This conclusion is based on an inconclusive presumptive test, which may occur when an unknown substance(s) prevented the interpretation of the presumptive test. The confirmatory test was negative.*

2.2 Reporting Semen Examination Results

The determination of whether semen is present on an item is dependent on the results of a visual examination with an alternate light source, the acid phosphatase (AP) test, and/or the microscopic search for a sperm cell. The report should generally use the following language based on the combination of these test results.²

2.2.1 Negative Semen Results

2.2.1.1 When the item is visually examined with an alternate light source and no areas of serological value were observed and/or further tested, the following statement should generally be included in the report:

A visual examination was conducted on item 6; however, no areas of serological value were observed.

It is noted that if any other semen examination(s) are conducted, the results of the visual examination are not reported.

2.2.1.2 No semen is detected on an item if the results of every test conducted are negative. The following statement should generally be included in the report:

*Semen was not detected on item 7.**

² For a given item of evidence, only the results for the stain on that specimen that yielded the most information with respect to the semen examinations conducted are reported.

with one of the following explanatory endnotes, as appropriate:

**This conclusion is based on a negative presumptive test. Insufficient quality and/or quantity of biological material may affect the ability to detect semen.*

**This conclusion is based on a negative microscopic examination for a sperm cell. Microscopic examinations may not detect semen from azoospermic (e.g., vasectomized) males. Insufficient quality and/or quantity of biological material may affect the ability to detect semen.*

**This conclusion is based on a negative presumptive test and a negative microscopic examination for a sperm cell. Microscopic examinations may not detect semen from azoospermic (e.g., vasectomized) males. Insufficient quality and/or quantity of biological material may affect the ability to detect semen.*

2.2.2 Presumptively Positive Semen Results

When the AP test is positive and a sperm search is either not conducted or is negative, the following statement should generally be included in the report:

*Semen was indicated on item 8.**

with one of the following explanatory endnote, as appropriate:

**This conclusion is based on a positive presumptive test result. Further confirmatory testing was not conducted. This result provides an indication that semen may be present on an item, but does not constitute an identification of semen. Insufficient quality and/or quantity of biological material may affect the ability to detect semen.*

*“*This conclusion is based on a positive presumptive test result and a negative microscopic examination for a sperm cell. These results provide an indication that semen may be present on an item, but do not constitute an identification of semen. Microscopic examinations may not detect semen from azoospermic (e.g., vasectomized) males. Insufficient quality and/or quantity of biological material may affect the ability to detect semen.”*

2.2.3 Confirmatory Semen Results

Semen is confirmed on an item when the microscopic sperm search is positive, regardless of the results of the other examinations. The following statement should generally be included in the report:

*Semen was identified on item 9.**

with one of the following explanatory endnotes, as appropriate:

**This conclusion is based on the microscopic observation of a sperm cell.*

**This conclusion is based on a positive presumptive test and the microscopic observation of a sperm cell.*

**This conclusion is based on a negative presumptive test and the microscopic observation of a sperm cell.*

2.2.4 Inconclusive Semen Results

If the AP result for an item is inconclusive, and a sperm search is either not conducted or is negative, the following statement should generally be included in the report:

*No determination can be made regarding the presence or absence of semen on item 10.**

with one of the following explanatory endnotes, as appropriate based on the tests conducted:

**This conclusion is based on an inconclusive presumptive test, which may occur when an unknown substance(s) prevented the interpretation of the presumptive test.*

**This conclusion is based on an inconclusive presumptive test, which may occur when an unknown substance(s) prevented the interpretation of the presumptive test. The confirmatory test was negative.*

2.2.5 Slide Created without Microscopic Examination

For evidence where samples are sent directly to DNA testing (e.g., Sexual Assault Kit swabs), a slide may be made during the differential extraction process but may not be serologically examined. When a male CODIS eligible DNA profile is developed from an item of evidence for which a slide was created, the following statement should be included in the *Laboratory Report* remarks to inform the contributor that serology testing may be requested if needed in the future. When a male profile is not developed, the statement does not need to be added.

As part of the analytical process, a slide was prepared from item 11 for possible semen identification. The slide was not examined at this time; however, it can be resubmitted if future examinations are needed.

3 References

United States. Department of Justice. Office of Legal Policy. Forensic Science. *Department of Justice Uniform Language for Testimony and Reports for the Forensic Serological Examinations*. Retrieved from the Department of Justice Web site:
<https://www.justice.gov/olp/uniform-language-testimony-and-reports>.

Rev. #	Issue Date	History
5	02/28/18	Added scope. Incorporated BAU into introduction. Added guidance on reporting when a slide was created but not tested.
6	03/27/19	Updated reporting language to incorporate changes based on the DOJ Serology ULTR requirements.

Approval

Redacted - Signatures on File

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