

Questioned Documents Unit (QDU) Maintenance, Calibration, and Performance Verification of Equipment

1 Scope

These procedures apply to all QDU personnel responsible for equipment that has an effect on the validity of QDU examinations.

1.1 This document addresses the maintenance, calibration, and performance verification requirements of the equipment used and maintained by the QDU. This includes the handling, transporting, storing, use and planned maintenance in order to ensure proper functioning to prevent contamination or deterioration.

1.2 The referenced maintenance, calibration, and performance verification logbooks for each piece of equipment may be combined into one logbook for that piece of equipment.

2 Maintenance

2.1 A maintenance logbook will be available for each piece of QDU equipment requiring maintenance. Typically, the maintenance logbooks will be located by the instrument(s) and include each instrument's serial number or other unique identifier as well as maintenance results. A record of pertinent information, as prescribed by the *FBI Laboratory Practices for the Calibration and Maintenance of Equipment*, will be maintained in the logbook.

2.2 Any maintenance performed will be in accordance with the manufacturer's manual. The following is a list of QDU equipment with planned maintenance requirements:

<u>Equipment</u>	<u>Frequency</u>
Stereomicroscopes	Yearly*
Comparison Microscope	Yearly*
Keyence Digital Microscope	As Needed
Electrostatic Detection Apparatus (ESDA)	As Needed
Electrostatic Dust Lifter	As Needed
Ribbon Analysis Workstation (RAW II)	As Needed
Videospectral Comparator (VSC)	As Needed**

Hyperspectral Imager (HSI)	As Needed
Personal Image Analysis System II (PIAS II)	As Needed

- * Provided through service contract
- ** See Foster and Freeman VSC manual

3 Calibration

3.1 A calibration logbook will be available for each piece of QDU equipment requiring calibration. Typically, the calibration logbooks will be located by the instrument(s) and will include each piece of equipment’s serial number or other unique identifier as well as calibration results. A record of pertinent information, as prescribed by the *FBI Laboratory Practices for the Calibration and Maintenance of Equipment*, will be maintained in the logbook and calibration records are updated in Resource Manager in a timely manner.

3.2 Any calibrations performed will be in accordance with the manufacturer’s manual. The following is a list of QDU equipment with calibration requirements:

<u>Equipment</u>	<u>Frequency</u>
Acculab Balance	Yearly*
Calipers	Yearly*
Ohaus Balance	Yearly*

- * Provided through current service contractor that will be adjusted as needed.

4 Performance Verification

4.1 A performance verification logbook will be available for each piece of QDU equipment requiring verification of proper operation. Typically, the performance verification logbooks will be located by the instrument(s) and will include each instrument’s serial number or other unique identifier as well as performance verification results.

4.2 The following is a list of QDU equipment with planned performance verification requirements:

<u>Equipment</u>	<u>Frequency</u>
ESDA	Weekly ¹
VSC	Every two weeks ^{2,3}
HSI	Prior to use
PIAS II	Prior to use
Keyence Digital Microscope	Prior to use

¹ Prior to use in biohazard room, portable travel kit, and Hazardous Evidence Analysis Team (HEAT) partner laboratories

² Prior to use in biohazard room and HEAT partner laboratories

³ VSC 40/HD: if used within the FBI Laboratory, every two weeks; if used in the field or at HEAT partner laboratories, prior to use

4.3 Any performance verifications performed by QDU personnel will be in accordance with the manufacturer's manual or equipment specific procedure. Instructions for conducting performance verifications will be maintained in the individual performance verification logbooks, or within the equipment's software and in the appropriate technical standard operating procedure (SOP) in which the equipment is used.

4.3.1 For instructions regarding the RAW II, refer to the *QDU Procedures for Conducting Office Equipment Ribbon Examinations*.

4.3.2 For instructions regarding conducting performance verifications on the PIAS II:

- Insert the PIAS II Companion CD into a computer that has the software installed
- Open the PIAS II software
- Open the User's Guide folder
- Open the file titled "PIAS II User's Guide v1.1 with appendices"
- Follow the listed instructions within that document

4.4 A record of pertinent information, as prescribed by the *FBI Laboratory Practices for the Calibration and Maintenance of Equipment*, will be maintained in the performance verification logbook and the cover or first page of the notebook must be labeled with the equipment's unique identifier as found in Resource Manager. Software updates will be logged appropriately, if required.

4.4.1 Certain equipment has a built in method of performance verification. If the performance verification fails on these pieces of equipment, they will not function at all. The QDU equipment that meets such requirements includes the PIAS II and the Keyence Digital Microscope.

4.4.1.1 If such problems persist, requiring maintenance from the equipment manufacturer, a record of the corrective maintenance performed will be maintained.

5 Portable Equipment

Portable equipment such as the ESDA and/or microscopes will be stored and transported in suitable protective and secure containers for field examinations. The portable equipment will be housed in the QDU and the use and maintenance of the equipment will follow the same procedures and guidelines as the in-house equipment. Equipment records will be maintained in accordance with the *FBI Laboratory Practices for the Calibration and Maintenance of Equipment*. Whenever possible, portable equipment will be maintained under the control of QDU personnel.

6 Reference Files

All reference file material will be properly stored and secured in the absence of QDU personnel. In addition, reference material will not be removed from the reference area(s) without advising the program manager or designee responsible for the specific collection. Reference file material will be returned to its secured area at the end of the work day.

7 References

FBI Laboratory Operations Manual

QDU Standard Operating Procedures Manual

Equipment Manuals

Rev. #	Issue Date	History
4	03/01/18	Section 4.2 added “ ³ VSC 40/HD: if used within the FBI Laboratory, every two weeks; if used in the field or at HEAT partner laboratories, prior to use” and adjusted formatting. 1 Scope added, “These practices apply to all QDU personnel responsible for equipment that has an effect on the validity of QDU examinations.” 2.2 deleted “Sirchie Fuming Cabinet” 3.1 added “and calibration records are updated in Resource Manager in a timely manner.” 3.2 deleted “Micrometer”, added “Calipers” “Xpert X-ray Machine Prior to use” 4.2, deleted “Sirchie Fuming Cabinet Prior to use” 4.3 added “and in the appropriate technical standard operating procedure (SOP) in which the equipment is used.” 4.4 added “and the cover or first page of the notebook must be labeled with the equipment’s unique identifier as found in Resource Manager. 4.4.1 Deleted, “As such a written record of performance verification fails on these pieces of equipment.”
5	09/26/19	Section 1.1 added “This includes the handling, transporting, storing, use and planned maintenance in order to ensure proper functioning to prevent contamination or deterioration. Section 2.2 added “planned” and deleted “Xpert X Ray Machine” “As Needed.” Section 3.2 last line added “current”, “or” to contract and “that will be adjusted as needed.” Section 4.2 added “planned” and deleted “Xpert X Ray Machine” “Prior to use” Section 4.3.1 deleted “conducting performance verifications on.” Section 4.4 added “Software updates will be logged appropriately, if required.”

Approval

Redacted - Signatures on File

Questioned Documents
 Unit Chief

Date: 09/24/2019

Questioned Documents
 Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
 Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Questioned Documents Unit (QDU) Case Records and Review for Legacy Cases

1 Scope

These procedures apply to Questioned Documents Unit (QDU) personnel who generate case records and/or conduct technical and administrative reviews for Legacy cases and supplement the *FBI Laboratory Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records for Legacy Cases* and the *FBI Laboratory Practices for Assigning Cases and Conducting Examinations*.

2 Case-Related Records

2.1 Administrative Records

- 2.1.1** A copy of the incoming letter or other administrative documents, if retained.
- 2.1.2** Facsimiles, letters, substantive emails, and other correspondence, if retained.
- 2.1.3** *Chain-of-Custody Log(s)* (7-243 or 7-243a).
- 2.1.4** *QDU Secondary Evidence Inventory (SEI)* (QDU-19).
- 2.1.5** *Laboratory Work Sheet(s)* (7-2).
- 2.1.6** All Evidence Analyst (EA) paperwork, if retained.
- 2.1.7** *Activity and Communication Log* (7-245).
- 2.1.8** Photograph(s)/digital images or equivalent prepared and retained for record purposes. The number of compact disks containing digital images of record copies will be accounted for on the *Laboratory Division Supporting Documentation Envelope* (7-251) which is in the FBI Laboratory File.
- 2.1.9** If an examiner serves as the EA, he/she will retain the *Chain-of-Custody Log* (7-243 or 7-243a) and *Examination Plan* (7-262).

2.2 Examination Records

2.2.1 All case-related work notes/records which support the examiner's conclusion(s) to include:

- Printouts from Video Spectral Comparator (VSC), or comparable equipment

- Copies or images of positive indented writing lifts
- Copies of reference materials/standards
- Drawings/Simulations/Images depicting observed characteristics
- Examination photographs
- Examination overlays
- Manufacturer's information/specifications

2.3 Administrative and examination records will be retained in accordance with procedures in the *FBI Laboratory Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records for Legacy Cases*.

2.3.1 All examination records will be numbered to account for all pages generated in the QDU when processing the requested examinations. The numbering sequence used must account for each page, followed by the total number of pages, using the “Page ___ of ___” or “___ / ___” format.

2.3.2 The total pages of examination records generated will be noted on the front of the 7-251.

2.3.3 An itemized list of administrative records (including the number of pages of each record) will be accounted for on the front of the 7-251.

2.4 All the above administrative and examination records will be maintained in the case file.

3 Case Review

Questioned document and footwear and tire examinations conducted in the FBI Laboratory and the field undergo the same review process. All comparisons and database associations are verified and all cases are technically reviewed by another qualified examiner to ensure accuracy and adherence to established practices and procedures. In addition, the unit chief will ensure all cases are administratively reviewed for accuracy and adherence to established practices and procedures.

3.1 The *QDU-12 Case Review Evaluation Sheet* (Appendix A) and the *QDU – 15 – Abbreviations* (Appendix B) will be used as a guide when conducting all administrative and technical reviews. Technical reviews, and administrative reviews will be conducted on all forensic cases containing “Results of Examinations”. /Laboratory reports containing “Remarks” only with no results section will only be administratively reviewed.

3.2 Upon completing a case that contains examination results, the case examiner will submit the case records and report to a technical reviewer. Upon receiving the case records and report, the reviewing examiner will complete a technical review and ensure that database

associations and all other comparison results are verified. Other results may also be verified at the discretion of the technical reviewer.

3.2.1 If corrections are needed, they will be recorded, addressed, and the case will then be resubmitted for review.

3.2.2 If a technical disagreement arises, the *FBI Laboratory Practices for Resolution of Scientific or Technical Disagreement* will be followed.

3.3 The individual conducting the technical review and confirmation of the conclusions will sign and date the yellow file copy of the *Laboratory Report (7-1)* on the reviewer line indicating the technical review and confirmation have been performed and that the examiner and reviewer are in agreement.

3.4 Once the technical review and verification are completed and the review signature is obtained, or if no technical review is required (e.g., Remarks only), the case examiner will submit the case records and report for administrative review. All cases will be administratively reviewed.

3.4.1 If corrections are needed, they will be recorded and addressed, and the case will then be resubmitted for review.

3.4.2 The administrative reviewer will sign and date the yellow file copy of the *Laboratory Report (7-1)* on the administrative reviewer line indicating the administrative review has been performed and that the report is administratively accurate.

3.5 If the case meets the criteria for a blind verification, it will be assigned a blind verifier by the Technical Leader/BV Coordinator (Qualified Examiner designated to serve in this role if Technical Leader is unavailable). Refer to the *QDU Blind Verification Procedures* for guidance.

3.9 Once the review processes are completed and both signatures are obtained, and if applicable, a blind verification has been conducted, the report will be uploaded to Sentinel, if appropriate, and issued.

4 Dissemination of Results

There are instances when the results of an examination(s) need to be expeditiously relayed to the contributor. Prior to a report being issued to the contributor and a technical review being conducted, an examiner may expeditiously disseminate the results or partial results of an examination(s) that is technical in nature only after a verification of those results has been conducted by a verifier. This review of the expedited results will be recorded on the *Activity and Communication Log (7-245)* by the verifier. The examiner will clearly state to the contributor which examinations were conducted, which items of evidence were examined, and the results of the examinations. Information not technical in nature may be reported prior to any

review. The dissemination of the expedited results or other information will be recorded on the *Activity and Communication Log (7-245)* by the examiner. Technical review and an administrative review will still be conducted and recorded in accordance with this procedure prior to the report being issued.

4.1 The following information is considered to be technical in nature and will not be provided to the contributor prior to conducting a verification :

- Whether an alteration or tampering of an item is detected
- Interpretation of indented writing
- Results of a positive database search
- Printing process(es) used to produce an item
- Whether text is located on an office equipment ribbon
- Authenticity of an item based on reference material
- Dating verification of an item based on reference material
- Any interpretive results

4.2 The following information is not considered to be technical in nature and may be provided to the contributor prior to conducting a technical review and verification:

- Request for additional known items
- Inquiry concerning the known writing (e.g., is the writing dictated or undictated, how was the writing obtained)
- Inquiry of whether the original of a non-original item is available or can be obtained
- Inquiry of whether a better copy of a non-original item is available or can be obtained
- The suitability of an item for comparison (e.g., severely distorted writing, indistinct footwear impression)
- The lack of sufficient comparability of items for comparison (e.g., handwritten entries to be compared to hand printed entries)
- Suggestion of additional examinations that may be probative
- Notification that a requested examination cannot or will not be conducted
- Request for consent to submit an item to a facilitating laboratory
- **Redacted**

5 References

FBI Laboratory Operations Manual

FBI Laboratory Quality Assurance Manual

QDU Quality Assurance Manual

QDU Standard Operating Procedures Manual

Rev. #	Issue Date	History
10	03/01/18	<p>1 Scope, deleted, “<i>Reviewing a Report Examination for Legacy Cases</i>” “<i>Retaining Case Related Records for Legacy Cases</i>” and added, <i>Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records for Legacy Cases, Assigning Cases and Conducting Examinations.</i>” 2 Case Records changed to “2 Case Related Records” 2.18 deleted “case file”, added “FBI Laboratory File.” 2.2.1, second bullet, added “or images” 2.3, deleted “<i>Retaining Case Related Records for Legacy Cases</i>”, added “<i>Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records for Legacy Cases</i>” Under 3 Case Review, deleted “designee conducts an administrative review to”, added “comparisons and database associations are verified” “all cases are administratively reviewed for” 3.1 added “and the <i>QDU – 15 – Abbreviations</i> (Appendix B)” “as a guide” 3.2, reworded for technical reviews and verifications. Deleted 3.2.1. Deleted 3.2.1.1. Deleted 3.3. 3.3.1 changed to 3.2.1. 3.3.2 changed to 3.2.2, deleted “conflict” “<i>Scientific or Technical Conflict Resolution</i>”, added “disagreement” “<i>Resolution of Scientific or Technical Disagreement</i>” Deleted 3.3.2.1. Deleted 3.3.2. 3 changed to “3.3”, deleted “FBI” “<i>of Examination</i>” “conclusions/results” “within an acceptable range” 3.5 changed to 3.4, deleted “copies to the unit chief/designee.” 3.6 changed to 3.4.1. Deleted 3.6.1. 3.7 changed to 3.4.2, deleted “unit chief/designee conducting the” “FBI” “<i>of Examination</i>” added “er” to “review” 3.8 changed to 3.5, deleted, “Case Assignment Program Manager, added “Technical Leader” 3.9, added “to Sentinel” Under 4 Dissemination of Results, deleted “unit chief, or designee”, added “that is technical in nature” “Information not technical in nature may be reported prior to review.” “or other information” 4.1, added “is considered to be technical in nature and” 4.2, added “is not considered to be technical in nature and may be”</p>
11	09/26/19	<p>2.1.6 deleted “Request Coordinator (RC)” and added “Evidence Analyst (EA).” Section 2.1.8 added “/digital images”. Section 2.1.9 deleted “RC” and added “EA.” Section 2.3.3 deleted “document” and added “record.” Section 3 added “and footwear and tire” Section 3.1 deleted “Confirmations”, lowercase “t” in “technical” and added capital “T” in “Technical”, “In addition, all “Results of Examinations” containing comparison results, printing process results, alteration/obliteration results, interpretation of indented writing, database search results, and any other results deemed necessary by the technical reviewer will be verified.” Section 3.3 deleted “confirmations” and added “verifications.” Section 3.4 added “/BV Coordinator (Qualified Examiner designated to serve in this role if Technical Leader is unavailable.)” Section 4 deleted</p>

“complete” “technical reviewer” “technical reviewer” “Further,”
and added “verification” “verifier” “verifier” “any” and capital “T”
in “Technical.” Section 4.1 deleted “technical review” and added
“verification.” Section 4.2 added “and verification”

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Approval

Questioned Documents
Unit Chief

Date: 09/24/2019

Questioned Documents
Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Appendix A: *QDU-12 Case Review Evaluation Sheet – Legacy*
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Appendix B: *QDU-15 Abbreviations*

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Questioned Documents Unit (QDU) Case Processing Procedures

1 Scope

This document applies to the Unit Chief, Examiners, and Document Analysts assigned to the QDU.

2 Responsibilities

2.1 A forensic examiner is responsible for ensuring that all forensic evaluations and examinations are conducted for each request for examination, while ensuring the integrity and safeguarding of the evidence while in his/her custody. It is also the responsibility of the pool examiner or assigned examiner to ensure that all case records are completed in accordance with established Laboratory practices.

2.2 A document analyst (technician) is responsible for ensuring that all requested preliminary case preparation and examinations, as requested by the pool examiner or assigned examiner, are complete. It is also the responsibility of the technician to ensure the integrity and safeguarding of the evidence while in his/her custody.

2.3 For a more detailed list of examiner and technician responsibilities, refer to the *QDU Administrative Structure and Operating Guidelines*.

3 Procedures for Technician Assistance

3.1 For pool system cases, the pool examiner will initiate the request for technician assistance. For subsequent technician assistance, the pool examiner or assigned examiner will initiate the additional requests. For Legacy casework, written instructions will be given to the assigned technician. The Unit Chief will ensure that a technician is assigned to the request.

3.2 Once the case has been assigned, the pool examiner or assigned examiner/technician will coordinate the evidence transfer.

3.3 Biological/chemical hazard items will be handled in specifically designated areas within the QDU space.

3.4 Evidence Transfers

The *FBI Laboratory Practices for Transferring and Storing Evidence* will be followed. For Legacy cases the *Chain-of-Custody Log* (7-243 and/or 7-243a) should be retained by the technician while the evidence is in his/her custody. However, the examiner may retain the

Chain-of-Custody Log (7-243 and/or 7-243a) if other item transfers are expected for Legacy cases.

4 Preliminary Case Preparation and Examinations

A technician, pool examiner, or assigned examiner will:

4.1 Inventory evidence, provide check-in notes, and acknowledge receipt of the case.

4.2 Ensure the proper handling and integrity of the evidence while in his/her custody and maintain the chain-of-custody as detailed in 3.4

4.3 Conduct and ensure the accuracy and quality of preliminary case preparation including administrative paperwork, imaging/photography of evidence, preparation of test impressions, and creating a permanent case record.

4.4 Ensure the technical accuracy of preliminary casework he/she has completed.
Preliminary casework includes:

- Indented writing examinations
- Watermark searches
- Typewriting classifications
- Database searches

4.5 Provide appropriate case records pertaining to the preliminary examinations performed on evidence received, results obtained, and procedures used.

4.6 Ensure all captured images have the laboratory number and item number included with the image.

5 Safety

Standard precautions for the handling of chemical and biological materials should be followed. Examiners/technicians may refer to the *FBI Laboratory Safety Manual* for guidance. Chemical and biological materials that are hazardous or potentially hazardous will be maintained and examined in specifically designated areas within the QDU space.

6 References

FBI Laboratory Operations Manual

FBI Laboratory Safety Manual

CPC Operations Manual

QDU Standard Operating Procedures Manual

QDU Quality Assurance Manual

Rev. #	Issue Date	History
4	03/01/18	<p>Added “1 Scope This document applies to the Unit Chief, Examiners, and Document Analysts assigned to the QDU.” 1 Responsibilities changed to “2 Responsibilities” , 1.1 changed to “2.1”, 1.2 changed to “2.2”, 1.3 changed to “2.3” 2 Requirements for Using the CPC changed to “3” Requirements for Using the CPC, first sentence deleted, Operation and use of the CPC will be in accordance with the guidelines established in the <i>CPC Operations Manual</i>.” Under Requirements, 3.1 changed to “3.1”, deleted “for questioned document cases” “the following”, added “a request for CPC assignment in FA and will ensure that necessary instructions are included.” “For Legacy casework, written instructions will be given to the CPC. Deleted original 2.1.1, 2.1.2, 2.1.3. Under Requirements, added “3.2 The Unit Chief will ensure that a technician will be assigned to the request, Original 2.2 changed to “3.3” Once the case has been assigned in CPC, the examiner/technician will coordinate the evidence transfer.” Original 2.2.1 changed to “3.3.1” Biological/chemical hazard items will be handled in specifically designated areas within the QDU space.” Deleted original 2.3 and 2.3.1. 2.4 Evidence Transfers changed to 3.4 Evidence Transfers, 3.4.1, deleted “For Legacy cases, the”, “<i>Evidence for Legacy Cases</i> and Forensic Advantage cases”, added “The” “<i>and Storing Evidence</i>” “For Legacy cases”, “for Legacy cases.” Deleted original 2.4.2. 3 Preliminary Case Preparation and Examinations changed to “4 “ Preliminary Case Preparation and Examinations, 3.1 changed to “4.1, 3.1.1 changed to 4.1.1, added “As requested, “i” added to “inventory”, added “,” after “evidence.” 3.1.2, changed to “4.1.2”, changed “2.4.1 to “3.4.1” and deleted “and 2.4.2” 3.1.3 changed to “4.1.3”. Deleted original 3.1.3.1, 3.1.3.1.1, and 3.1.3.1.2” 3.1.4 changed to “4.1.4”. 3.1.5, changed to “4.1.5”, Deleted original 3.1.5.1. Changed original 3.1.6 to “4.1.6, deleted “(either written on the evidence or with a Q tab or I tab) visible” and added, “included with the image. Deleted original 3.2, 3.2.1, 3.2.2, 3.2.2.1, 3.2.2.1.1. , and 3.2.2. 4 Safety changed to “5 Safety”, 5 References, changed to “6 References”</p>
5	09/26/19	<p>In title, deleted “Center.” Section 2.1 added “pool” “or assigned examiner” and “case.” Section 2.2 added “pool” and “or assigned examiner.” Section 3 Title, deleted “Using the CPC”, added “Technician Assistance.” Section 3.1, deleted “To receive assistance from the CPC, an examiner will submit a request for CPC assignment in FA and will ensure that necessary instructions are included.”, added “For pool system cases, the pool examiner will initiate the request for technician assistance. For subsequent technician assistance, the pool examiner or assigned examiner will initiate the additional requests”, deleted “CPC”, and added</p>

“assigned technician.” Section 3.2, deleted “in CPC”, added “pool” and “assigned examiner” Section 3.4, deleted “(not to CPC).” Section 4, deleted “When assigned a case”, added “A pool examiner, or assigned examiner” Section 4.1, deleted “As requested,” lower case I in inventory, and “under the direction of an examiner.” Section 4.2, deleted “4.1” and added “4.” Section 4.3, added “photography”, “preparation of test impressions,” “case” Section 4.4 deleted “as requested by the examiner.” Section 4.5, added “case.” Section 4.6 added “laboratory number and”, deleted “before returning preliminary casework and records to the examiner.”

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Approval

Questioned Documents
Unit Chief

Date: 09/24/2019

Questioned Documents
Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Questioned Documents Unit (QDU) Evidence Handling Procedures and Examinations for Legacy Cases

1 Scope

These procedures apply to all personnel in the Questioned Documents Unit (QDU) who receive, transfer, store, and/or return evidence using the Legacy system.

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3 Transfers of Evidence

3.1 All transfers of evidence will be conducted in accordance with the *FBI Laboratory Practices for Transferring and Storing Evidence* and the *FBI Laboratory Practices for Handling Drug and Valuable Evidence*, where applicable.

3.2 In instances when multiple QDU examiners/analysts are assisting/conducting examinations on the same evidence, but evidence is not being transferred, a separate list of those individuals will be maintained by the assigned examiner. This list will be maintained in the case file.

3.3 All evidence transferred within the FBI Laboratory and out of the QDU will be properly sealed unless exigent circumstances exist (e.g., immediate cases). In these instances transfers will be hand-to-hand and a proper seal is not required, within the FBI Laboratory. All transfers outside of the FBI Laboratory, the evidence will be under proper seal.

4 Inventory of Evidence

4.1 For evidence received under the Legacy system, the *FBI Laboratory Practices for Assigning Cases and Conducting Examinations* and the *FBI Laboratory Practices for Processing a Submission and Evidence Breakdown* will be followed.

4.2 Evidence item(s) will be labeled with the item identifier, laboratory number, and the examiner's initials whenever the item(s) lends itself to marking.

4.3 The following types of evidence do not lend themselves to some or all of the required markings:

- **Redacted** postage stamps, or other small items in which space is limited
- Items requiring other forensic examinations, such as latent print examinations
- Items requiring indented writing examinations
- Ransom notes or other items that may be returned to the subject
- Items covered in biological matter
- Charred or brittle items
- Legal documents, such as passports, identification cards, and certificates
- Historical items
- Valuable items, such as artwork
- Other items in which markings would be considered destructive

4.4 When it is not possible to place some or all of the required markings on the evidence, the primary container/packaging will contain the laboratory number and other required identifiers.

4.4.1 Anyone writing on outer packaging containing evidence should exercise caution and ensure no extraneous indentations are placed onto the evidence.

5 General Evidence Handling Considerations

5.1 All examiners and analysts will take appropriate measures to ensure the integrity of the evidence for future examinations in other forensic disciplines and safeguard the evidence against contamination, loss, or deleterious changes.

5.2 If DNA or trace evidence are possible future examinations, the examiner should refer to the *QDU Procedures for the Initial Assessment of Documentary Evidence*.

5.2.1 For the majority of cases involving DNA exams, the evidence will be transferred to the DNA unit before the QDU analyst takes possession. In the few instances where this does not occur, great care must be taken as to not contaminate the evidence with the analyst's DNA.

5.2.1.1 A clean disposable surface (e.g., brown paper, kimwipe or paper equivalent) must be placed down on any surface where the evidence will be handled, as appropriate.

5.2.1.2 The analyst will wear gloves, a mask, and a lab coat to prevent his/her DNA from being transferred to the evidence, if the evidence is examined in the QDU prior to DNA exams.

5.2.1.3 The analyst will clean the scanner with alcohol wipes before use in order to prevent contamination, if the evidence is scanned prior to DNA exams. The scanner will be cleaned after use, as needed.

5.2.2 If an analyst observes trace evidence, (e.g., hair, fiber) care must be taken to preserve the evidence and the examiner should be immediately notified.

5.3 For evidence that will be examined by the latent print discipline, nitrile gloves must be worn at all times. **Redacted**

5.3.1 If the evidence is composed of a hard surface, (e.g., plastic, metal) two sets of gloves should be worn: cotton gloves with nitrile gloves over them. This is done to prevent the latent prints possibly present on the surface from being removed.

5.3.2 If an analyst handles latent evidence without gloves, he/she must immediately inform the examiner.

5.4 Analysts should consult with the pool examiner or assigned examiner for any pertinent information or special instructions.

5.5 Care must be taken as to not tear the evidence or adhere it to any surface, possibly causing damage.

5.5.1 If an adhesive material is on the evidence, a barrier sheet may be used to prevent sticking. The analyst will consult with the pool examiner or assigned examiner before proceeding with this method.

5.5.2 If a piece of the evidence contains an adhesive material that inhibits the analyst's ability to scan or conduct indented writing examinations, he/she must consult with the pool examiner or assigned examiner before using a material such as Undu[®] to remove the adhesive.

5.5.3 If evidence needs to be altered, (excluding splitting the sides of an envelope or removing spiral rings from notebooks for ESDA purposes) the pool examiner or assigned examiner must contact the contributor to obtain consent for the alteration. The contributor's consent or disapproval will be recorded on the *Activity and Communication Log (7-245)*. If, and after, the proper permission is received, the examiner will be the one to alter the evidence, recording the alteration in his/her notes.

5.5.3.1 An analyst must never alter, cut or tear a piece of evidence. This task must be completed by the pool examiner or assigned examiner.

5.6 Especially fragile evidence such as charred or water-soaked documents must be handled with great care. In most situations, the pool examiner or assigned examiner will have attempted to protect and preserve the charred or soaked evidence before it is transferred to an analyst.

5.6.1 The analyst should follow any special instructions from the pool examiner or assigned examiner regarding the protection of the evidence during the scanning and/or Electrostatic Detection Apparatus (ESDA) process.

5.7 In instances where evidence in an analyst's possession has gotten wet, the analyst must immediately inform the pool examiner or assigned examiner and take steps to dry the evidence thoroughly.

5.7.1 The evidence should not be placed into any plastic document holder or bag, as this may damage the document further and promote mold growth. The evidence should be placed in a paper envelope after it has dried.

5.8 Machine printed material should not be placed in plastic document holders or bags due to the tendency for the medium to transfer to the plastic if pressure or heat is applied. Printed documents should be placed inside paper envelopes for proper storage and protection. If documents are observed to be stored improperly, the analyst should immediately consult the pool examiner or assigned examiner.

5.9 All biohazard evidence will be examined in the biohazard room using appropriate personal protective equipment (PPE).

5.9.1 All surfaces which come in contact with biohazard evidence (where feasible) will be properly cleaned after use using a 10 percent bleach solution (prepared that day or manufacturers).

5.10 Evidence containing known chemicals that may be harmful will be worked in an area equipped to handle such substances (e.g., chemical fume hood), and a trained examiner will wear appropriate PPE.

6. Examination of Evidence

6.1 The examination of all evidence for Legacy cases will be conducted in accordance with the *FBI Laboratory Practices for Assigning Cases and Conducting Examinations*.

6.2 All assigned examiners in the QDU will assess the submitted evidence and conduct all examinations deemed necessary, in accordance with the *QDU Standard Operating Procedures Manual*. In addition, each assigned examiner will take appropriate measures to ensure the integrity of the evidence for future examinations in other forensic disciplines and safeguard against contamination or loss.

6.2.1 At a minimum, a visual inspection of the submitted items is required in all active cases. Based upon contributor request(s) and a preliminary visual inspection, the assigned examiner will determine and record in the examination records the appropriate examinations to be conducted on the submitted items. For comparison of an unknown to a known, the procedure

requires the evaluation of the unknown item(s) to identify characteristics suitable for comparisons.

6.2.1.1 Magnification, lighting, or other equipment may be used as needed during the initial visual inspection.

6.3 An association within the QDU will be defined as follows - An observation that two or more elements have significant aspects in common indicating they may be of a related/common origin at some point in time.

6.4 Refer to the *QDU Case Records and Review for Legacy Cases* procedures for conducting technical and administrative reviews.

6.5 If an examiner/analyst elects to use digital enhancement software, such as Photoshop for casework purposes, the examiner/analyst will refer to the user's guide and/or other pertinent information for the particular software being used. In addition, the examiner/analyst will keep a record of the particular software being used and the steps performed to the image during the enhancement process. This record may be written, printed, or kept in digital format with the enhanced image. The record will be maintained in the *Laboratory Division Supporting Documentation Envelope (7-251)*.

6.5.1 Requirements for Photoshop Processing are as follows:

- The original image will remain unaltered.
- A working copy of the original image will be created and used for digital processing to preserve the integrity of the original image.
- Digital image processing must not misrepresent nor compromise the integrity of the information contained in the original image.

6.5.2 Questioned document cases are dynamic in nature and may require the use of all available Photoshop processing/tools. However, the primary processing/tools used in casework typically include, but are not limited to:

- Image enhancements (contrast, brightness, etc.)
- Filters
- Levels
- Color channels
- Eraser
- Dodge/Burn
- File format conversion (e.g., TIFF to JPEG)

6.6 Electronic images/information submitted via e-mail, facsimile, or Sentinel for database searches and other QDU examinations will be handled in accordance with the *FBI Laboratory Practices for Processing a Single Unit Submission (SUS)*, *FBI Laboratory Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records for Legacy Cases*, *FBI Laboratory Practices for Transferring and Storing Evidence*, *FBI Laboratory*

Practices for Processing a Submission and Evidence Breakdown and the FBI Laboratory Practices for Assigning Cases and Conducting Examinations.

6.7 All cases being processed by a pool examiner, assigned examiner, and/or assigned technician/analyst and those being technically reviewed are considered under active examination. In addition, analysis or comparison of case evidence at least once every sixty days will constitute active examination. Evidence that is not under active examination will be properly sealed and stored.

7 Secondary Evidence

A *QDU-19 Secondary Evidence Inventory* (Appendix A) will be completed and retained when electrostatic lifts and/or photographs/electronic images of indentations as well as lifts, casts, and test impressions of footwear/tire and other pattern impression evidence (new evidence created in Laboratory) are returned to the contributor. In addition, exemplars (new evidence created in Laboratory) taken for future comparison purposes will be treated as secondary evidence. DVD(s)/CD(s) containing uncompressed image files can be treated as secondary evidence or included in the *Laboratory Division Supporting Documentation Envelope* (7-251). Secondary evidence will be sealed and labeled in accordance with the evidence practices of the FBI Laboratory.

8 Safety

Standard precautions for the handling of chemical and biological materials should be followed. Examiners/analysts may refer to the *FBI Laboratory Safety Manual* for guidance. Chemical and biological materials that are hazardous or potentially hazardous will be maintained and examined in specifically designated areas within the QDU space.

9 References

FBI Laboratory Safety Manual

FBI Laboratory Operations Manual

FBI Laboratory Quality Assurance Manual

QDU Quality Assurance Manual

QDU Standard Operating Procedures Manual

Rev. #	Issue Date	History
6	03/01/18	<p>3.1 changed from Legacy manuals to updated manuals, 3.3 added, “within the FBI Laboratory and” “, within the FBI Laboratory. All transfers outside of the FBI Laboratory, the evidence will be under proper seal.” 4.1 changed from Legacy manuals to updated manuals. 5.2.1.1, added, “or paper equivalent” 5.2.2, added “the”. 5.3, added “nitrile” 5.4, deleted, “The examiner may elect to include this information on the <i>QDU – 1 Case Processing Center Request Sheet</i> (Appendix A). Any special instructions included on the <i>QDU-1</i> form must also be verbally conveyed to the analyst. Deleted 5.4.1. 5.5.3.1, deleted, “on his/her own.” Added, “alter” “This task must be completed by the examiner.” 6.1 changed from Legacy manuals to updated manuals. 6.5 added “software, such as Photoshop” “particular software being used and the” Added “6.5.1 Requirements for Photoshop Processing are as follows: The original image will remain unaltered. A working copy of the original image will be created and used for digital processing to preserve the integrity of the original image. Digital image processing must not misrepresent nor compromise the integrity of the information contained in the original image. Added, “6.5.2 Questioned document cases are dynamic in nature and may require the use of all available Photoshop processing/tools. However, the primary processing/tools used in casework typically include, but are not limited to: Image enhancements (contrast, brightness, etc.), Filters, Levels, Color channels, Eraser, Dodge/Burn, File format conversion (e.g., TIFF to JPEG)” 6.6 changed from Legacy manuals to updated manuals. 7 Secondary Evidence, 7.1 deleted Appendix “B”, added Appendix “A”, “as well as lifts, casts, and test impressions of footwear/tire and other pattern impression evidence (new evidence created in Laboratory)” “In addition, exemplars (new evidence created in Laboratory) taken for future comparison purposes will be treated as secondary evidence. DVD(s)/CD(s) containing uncompressed image files can be treated as secondary evidence or included in the <i>Laboratory Division Supporting Documentation Envelope (7-251)</i>. Secondary evidence will be sealed and labeled in accordance with the evidence policies of the FBI Laboratory.” Deleted, “shoeprints, or tire treads,” “for investigative assistance and/or interpretation.” “The lifts and/or photographs/electronic images of indentations will be sealed and labeled in accordance with the evidence policies of the FBI Laboratory. Photographs/electronic images taken for copy shot or notation purposes only are not secondary evidence and will not be treated as such.”</p>
7	09/26/19	<p>Section 5.4 added “pool” “or assigned examiner.” Section 5.5.1 added “pool” “or assigned examiner.” Section 5.5.2 added “pool” “or assigned examiner.” Section 5.5.3 deleted “e.g.,” and added</p>

“excluding” “or removing spiral rings from notebooks for ESDA purposes” “examiner or assigned examiner.” Section 5.5.3.1 added “pool” “or assigned examiner.” Section 5.6 added “pool” “or assigned examiner.” Section 5.6.1 added “pool” “or assigned examiner.” Section 5.7 added “pool” “or assigned examiner.” Section 5.8 added “pool” “or assigned examiner.” Section 6.2 added “assigned” “assigned.” Section 6.2.1 deleted “document” and added “assigned” “record” “For comparison of an unknown to a known, the procedure requires the evaluation of the unknown item(s) to identify characteristics suitable for comparisons.” Section 6.3 added “/common”, “at some point in time.” Section 6.7 deleted “the QDU Case Processing Center (CPC) and added “a pool examiner, assigned examiner, and/or assigned technician/analyst”

Redacted - Signatures on File

Approval

Questioned Documents
Unit Chief

Date: 09/24/2019

Questioned Documents
Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Appendix A: QDU-19 Secondary Evidence Inventory

Redacted - Form on File

Questioned Documents Unit (QDU) Proficiency Testing

1 Scope

Proficiency testing in the QDU applies to all forensic examiners, analysts (technicians), and contractors who are involved in the examination, preliminary examination, and/or review of casework. The proficiency testing program will encompass internal and external tests in the categories of testing of General Document Examination and Impression Evidence (footwear/tires). Proficiency testing records will be maintained in accordance with *FBI Laboratory Practices for Open Proficiency Testing*.

2 Categories of Testing (COT) and Frequency

2.1 All QDU examiners, technicians, and contractors will be proficiency tested annually in each COT in which they are qualified to perform work.

2.1.1 Examiners, technicians, and contractors in the QDU are proficiency tested in the following:

Test Participant	Category of Testing	Test Description	Source
Examiners	General Document Examination	Document Examination	External
Examiners	General Document Examination	Handwriting/Hand Printing	External
Examiners	Impression Evidence	Footwear Examination	External
Analysts	General Document Examination	Electrostatic Detection Apparatus	Internal
Redacted	Redacted	Redacted	Redacted
Analysts	Impression Evidence	Footwear Database Search	Internal

2.2 The QDU will participate in external proficiency testing if it meets the requirements described in the Quality Assurance Manual and Laboratory Operations Manual and will internally test unit personnel whenever an acceptable external test is not available.

3 Test Administration

3.1 External Tests

3.1.1 Two examiners will be designated to take the proficiency tests independently, review them, and determine the acceptable answer parameters/range for the test participants, if applicable. This will be recorded in the case record communication log by the designated examiner(s) performing the reviews. The *FBI Laboratory Practices for Open Proficiency Testing* will be followed and participants will follow appropriate Standard Operating Procedures when participating in proficiency tests.

3.1.2 Once the answer parameters/range has been established, if applicable, the proficiency tests will be distributed by the Proficiency Test Representative to the other examiners for independent examination. After a proficiency test is completed, an examiner will record his/her results on the test provider data sheets as well as prepare a written report of his/her results and complete the report in Forensic Advantage (FA).

3.1.3 All examiner proficiency tests will be verified as well as technically and administratively reviewed prior to returning the tests to the Proficiency Test Representative. The original designated examiners will verify as well as technically and administratively review each proficiency test using the *QDU-12 Case Review Evaluation Sheet* (Appendix A) as a guide. Refer to the *FBI Laboratory Practices for Open Proficiency Testing* as well as the *QDU Case Records and Review for Legacy Cases* for more information on case review and retaining proficiency test records.

3.1.4 The QDU examiners will electronically submit their results to the external providers and the Proficiency Test Representative will ensure this task is completed by all examiners.

3.1.5 When the proficiency test results are furnished to the QDU by the test provider, the technical reviewer will evaluate the test. Appropriate entries will be made within FA in accordance with *FBI Laboratory Practices for Open Proficiency Testing*.

3.2 Internal Tests

3.2.1 The QDU will follow the *FBI Laboratory Practices for Open Proficiency Testing* regarding internal proficiency testing, test preparation, and test records within FA.

3.2.2 Qualified examiners may design and prepare internal proficiency samples and tests. A *QDU-21 Internal Proficiency Validation* (Appendix B) will be completed and retained for reference purposes with each specific proficiency test. The *QDU-21* will include all pertinent information regarding test design and sample/test preparation as required and set forth by the *FBI Laboratory Practices for Open Proficiency Testing*. Refer to the *QDU-21* for specific validation criteria.

3.2.3 For the internal Electrostatic Detection Apparatus (ESDA) proficiency test, a *QDU-24 ESDA Observation Checklist* (Appendix C), may be used by a qualified examiner not participating in the test as a guide in the evaluation of the test to the examiner or analyst. The ESDA lift(s) will be evaluated and an image of the ESDA lift will be added to the Case Record Object Repository.

3.2.4 For the Analyst Footwear Database Search, the SICAR search worksheet will be completed by the analyst and uploaded into the Case Record Object Repository. The search criteria listed by the analyst on the worksheet will be used to evaluate the test.

Redacted

3.2.6 All reviews and evaluations will be performed by a qualified examiner in Forensic Advantage. All worksheets and final images of Redacted ESDA lift(s) will be uploaded in the case record object repository and approved by the Analysts. All records will be retained in FA.

3.2.7 When appropriate, previous external tests may be utilized as internal tests, provided the examiners or technicians have no knowledge of the previous external test results. The QDU will follow the *FBI Laboratory Practices for Open Proficiency Testing* when using external proficiency test samples for internal proficiency tests.

4 Corrective Action

The QDU will follow the *FBI Laboratory Practices for Open Proficiency Testing* regarding potential inconsistencies and corrective action taken for any administrative and analytical/interpretive errors identified during the proficiency testing process.

5 References

FBI Laboratory Operations Manual

QDU Standard Operating Procedures Manual

QDU Quality Assurance Manual

Rev. #	Issue Date	History
5	03/01/18	<p>2.1.1, added “Examination” to “Footwear” Test Description, added “Analysts” to Test Participant, added “Impression Evidence to Category of Testing, added “Footwear Database Search” to Test Description. 2.2, deleted “approved American Society of Crime Laboratory Directors/Laboratory Accreditation Board”, added, “accrediting body” Section 3 changed to “Test Administration” 3.1 changed to “External Tests” 3.1.1, added “by the QDU Proficiency Test Representative (PTR) 3.1.2 added, “will be” “by the PTR” “and complete the report in Forensic Advantage.” 3.1.3, deleted “Forensic Analysis Support Unit’s Proficiency Test Program Manager (PTPM) for submission of the results to the test provider” “The technical and administrative reviews will be documented at the bottom of each informal report prepared by the examiner taking the proficiency test. This report will be retained as part of the examination records. Once the tests have been reviewed and signed, they will be forwarded to the PTR PTPM.” ”, added “Proficiency Test Representative” “as a guide” “Proficiency Test Representative.” 3.1.4 added, “The QDU examiners will electronically submit their results to the external providers and the Proficiency Test Representative will ensure this task is completed by all examiners.” 3.1.5 changed to 3.1.4, added “the technical reviewer will evaluate the test and complete” The QDU-20 “within Forensic Advantage (FA), deleted “via the PTPM” “o the Proficiency Testing Database” 3.2 title changed to “Internal Tests” 3.2.1, deleted “and database entry”, added “and test records” “within FA” 3.2.2, added “design and” “samples and” “design and sample/test” 3.2.3 added “by a qualified examiner not participating in the test” “analyst” 3.2.3 bullet added “For the Analyst Footwear Database Search, no QDU-20 or QDU-24 form will be used. Only a SICAR search worksheet will be completed.” “analyst” 3.2.4 bullet added, “For Analysts Footwear Database Search no QDU-12, QDU-24, or QDU-28 forms are used. All reviews and evaluations will be performed by a qualified examiner in Forensic Advantage. All analysts worksheets will be uploaded and approved by the Analysts. All records will be retained in Forensic Advantage” 3.2.5, added “and evaluations” “by a qualified examiner.” The QDU-20 or QDU-24 is” “3.2.4 for Analyst Footwear Database Search records.” 3.2.6, deleted “Refer to” “for more information on”, added “The QDU will follow” “when” Under 4 Corrective Action, added “potential inconsistencies and”</p>
6	09/26/19	<p>Section 2.2 deleted “when available from an accrediting body approved provider” and added “if it meets the requirements described in the QAM/LOM” Section 3.1.1 deleted “on the QDU-20</p>

Proficiency Test Representative (PTR) at the start of all proficiency tests. The QDU-20 will include all pertinent information regarding the proficiency test as required by the “Refer to the QDU-10 for specific evaluation criteria.” and added “, if applicable” “in the case record communication log by the designated examiner(s) performing the reviews.” “The” “will be followed and participants will follow appropriate Standard Operating Procedures when participating in proficiency tests.” Section 3.1.2 added “if applicable” and deleted “n’ in “an” and “informal.” Section 3.1.3 added “verified as well” “verify as well” Section 3.1.5 deleted “and complete the QDU-20” “The QDU-20 will be retained with the test notes.” Section 3.2.2 deleted “C” and added “B” for the Appendix. Section 3.2.3 deleted “Prior to a QDU prepared” “test being issued, a QDU-20, or for an” “D” for Appendix initiated and the test will be distributed by a qualified” “or contractor” and added “For” “the” “Electrostatic Detection Apparatus” added parenthesis around “ESDA” “C” for Appendix, “a” “as a guide in the evaluation of the test” “The ESDA lift(s) will be evaluated and an image of the ESDA lift will be evaluated and an image of the ESDA lift will be added to the case object repository.” Deleted last sentence under Section 3.2.3. Added Section “3.2.4 For the Analyst Footwear Database Search, the SICAR Search worksheet will be completed by the analyst and uploaded into the Case Record Object Repository. The search criteria listed by the analyst on the worksheet will be used to evaluate the test.” **Redacted**

Changed original “3.2.4” to “3.2.6” and deleted last four sentences and paragraph and added “All reviews and evaluations will be performed by a qualified examiner in Forensic Advantage. All worksheets and final images of **Redacted**

ESDA lift(s) will be uploaded into the Case Object Repository and approved by the Analysts. All records will be retained in FA. Deleted original section “3.2.5” and its contents. Changed original “3.2.6” to “3.2.7”

Redacted - Signatures on File

Approval

Questioned Documents
Unit Chief -

Date: 09/24/2019

Questioned Documents
Technical Leader -

Date: 09/24/2019

Footwear/Tire Tread
Technical Leader -

Date: 09/24/2019

QA Approval

Quality Manager -

Date: 09/24/2019

Appendix A: *QDU-12 Case Review Evaluation Sheet - Legacy*
Redacted - Form on File

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Questioned Documents Unit (QDU) Purchasing of Supplies and Services and Storage of Reagents and Consumables

1 Scope

This document applies to all employees in the QDU that purchase services and supplies or handle any reagents and/or consumables received and used in the unit. In addition, information may be found in the *FBI Laboratory Safety Manual*.

2 Procurement of Services and Supplies

Authorized QDU personnel will prepare a *Requisition for Supplies and Equipment* (FD-369) or other appropriate documentation for all services and supplies. Products and services that affect laboratory activities must comply with specifications defined within specific standard operating procedures. All requests for services and supplies will be reviewed and approved by the Unit Chief prior to ordering.

3 Documentation of Supplies

The receipt and accuracy of all purchased supplies will be confirmed by the person receiving the order. When items are received, they will be checked against the original FD-369 or appropriate document to ensure they are in agreement with one another. Electronic records of purchases will be maintained within the QDU.

4 Storage

Solvents, reagents, and other chemicals purchased for use will be stored in the proper storage facility until their intended use according to the manufacturer. Reagents made in-house will be stored in appropriate containers. At a minimum, labels will have the identity of the reagent and the date of preparation or lot number. Records maintained by QDU will identify who made the reagents and the components used in preparation.

5 Evaluation of Suppliers

Suppliers of products and services are evaluated by historical performance. If historical performance cannot be determined (e.g., a new company that provides a critical service or supply), the quality of the service or supply will be evaluated in the QDU. Records of these approved suppliers will be maintained in the QDU.

Rev. #	Issue Date	History
3	03/01/18	Title, deleted "Reception" and added "Purchasing of Supplies and Services and". 1 Scope, deleted "policy", added "document" "all employees in QDU that handle supplies," "and used" "unit" Under 2 Procurement of Supplies, deleted "Qualified", "or designee" "technical content", added "Authorized" "approval". Under 3 Documentation of Supplies, deleted "documented" "If they are, a check mark is placed next to each item on the invoice, packing slip, payment form, or comparable record and that record is initialed and dated." "R" in records, "of this evaluation" Added, "an accuracy" "confirmed" "Electronic" "purchases". Under 4 Storage, added, " , reagents, and other chemicals" Changed section title 5 Evaluation of Distributors to "5 Evaluation of Suppliers". Under section 5, deleted "Distributors" "supplies", "supply" "evaluations" "Shoeprint laboratory", and added "Suppliers", "supply", "service" "supply" "approved suppliers"
4	09/26/19	1 Scope, added "In addition, information may be found in the FBI Laboratory Safety Manual." Section 2 deleted "Critical supplies" added "Products and services that affect laboratory activities." Section 4 added "At a minimum, labels will have the identity of the reagent and the date of preparation or lot number. Records maintained by QDU will identify who made the reagents and the components used in preparation." Section 5 deleted "critical services and supplies" and added "products and services."

Approval

Redacted - Signatures on File

Questioned Documents
 Unit Chief

Date: 09/24/2019

Questioned Documents
 Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
 Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Questioned Documents Unit (QDU) Training and Continuing Education Procedures

1 Scope

This document addresses training and details the procedures for continuing education for all employees of the Questioned Documents Unit (QDU) and supplements the requirements found in the *FBI Laboratory Quality Assurance Manual* and the *FBI Laboratory Operations Manual - Practices for the Forensic Examiner Training Program*. The training program of the QDU is detailed in the *QDU Training Manuals*. These manuals are divided into modules that encompass numerous critical subject areas. Upon completion of the modules, the trainee will be tested (oral, written, or both) to demonstrate his/her comprehension and proficiency in that subject area. Furthermore, trainees will receive training samples as well as current casework samples and will be required to demonstrate competency by analyzing these samples correctly.

2 Records

2.1 All records related to training of personnel within the QDU will be maintained by the QDU Training Program Manager in individual personnel folders. This includes monthly and quarterly reviews regarding a trainee's activities and progress, electronic communications recording the completion of a training program, certificates recording completion of other training courses that have been taken, case review sheets, oral board and moot court evaluation sheets, and any other pertinent records. Records concerning continuing education completed by examiners and analysts may also be maintained.

2.2 Forensic Examiner Trainees (FET) will maintain a training log and must fulfill training requirements as outlined in the *Document Analyst Training Syllabus*, the *QDU Training Manuals*, *FBI Laboratory Practices for the Forensic Examiner Training Program*, *FBI Practices for Oral Board Exercises*, and *FBI Laboratory Practices for Moot Court and Admissibility Hearing Exercises*.

2.3 The appropriate discipline Training Program Manager will review the FET's training log on a monthly basis; this review will be recorded and maintained in the FET's training record.

2.4 The discipline Training Program Manager will provide feedback to the FET, at a minimum on a quarterly basis, using the *Forensic Examiner Training Evaluation (7-270)*.

3 Training and Continuing Education

All employees within the QDU will receive evidence handling as well as training in forensic ethics prior to beginning any casework. This training will include the appropriate behavior and ethical practices in forensic science in general, as well as within their discipline, as appropriate.

The ethical practices in forensic science training will be covered by reviewing The Application of Ethical Practices in Forensic Sciences PowerPoint which is available in Virtual Academy.

3.1 Training Forensic Examiner Trainees

The FET will receive instruction and training in Laboratory administration, safety, evidence handling procedures, evidence processing, ethics, instrumentation, quality assurance, quality control, general knowledge of forensic science, criminal and civil law and procedures, courtroom testimony (including Daubert and ASSTR), and analysis, comparison, and evaluation of documentary evidence. Furthermore, each trainee will be assigned to a mentor(s) throughout the duration of the training program. Each mentor will assist the discipline Training Program Manager with the training and evaluation process of the trainee.

3.1.1 The training program in the QDU is intended to cover the areas necessary to prepare the trainee to become an examiner in his/her category(ies) of testing. Its purpose is to provide a structured period of training which will enable the trainee to establish a firm foundation from which further study, development, and competency may occur. Incorporated in this training period are reference reviews, specialized training, specialty-related tours, and independent research. The training program will be administered in accordance with the *FBI Laboratory Operations Manual – Practices for the Forensic Examiner Training Program*.

3.1.2 Each examiner trainee will be provided with the requirements of the training program, a training plan outlining the requirements to become qualified in a particular category of testing, and a training schedule with milestone dates. This training plan will be developed by the discipline Training Program Manager, the UC, the trainee's mentor(s), and other appropriate unit personnel.

3.1.2.1 Prior to the initiation of the Forensic Examiner Training Program, the Technical Leader will conduct an assessment of an FET's knowledge and skills to determine if any modifications to the FE training program are needed. This applies to both FETs with no previous experience, as well as FETs with prior experience.

3.1.2.1.1 An FET assigned to the QDU (without prior experience) will undergo approximately two years of training in questioned documents and/or footwear/tire treads and their application to the analysis and comparison of evidentiary materials for the evaluation and interpretation of such.

3.1.2.1.2 When hiring an experienced examiner, the QDU will follow the *FBI Laboratory Quality Assurance Manual* to assess previous training and determine if any modifications are necessary for his/her training program.

3.1.2.2 The training plan will be provided to the FET within 45 calendar days of initiating the training program. All training plans must be approved by the appropriate Technical Leader and the trainee's Unit Chief.

3.2 Training New Analysts (Technicians)

3.2.1 New analysts assigned to the QDU will undergo approximately 1 to 3 months of training in selected areas of questioned documents and/or footwear/tire tread examinations. The trainee will receive instruction and training in Laboratory administration, safety, evidence handling procedures, evidence processing, forensic ethics, instrumentation, quality assurance, quality control, courtroom testimony, analysis of selected questioned document areas, and the use and application of specialized equipment.

3.2.2 Each new trainee will be provided with the requirements of the training program and a training plan. This training plan will be developed by the appropriate discipline Training Program Manager, the UC, and other appropriate unit personnel.

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3.4 Remedial Training for Experienced Document Analysts and Examiners

3.4.1 At times, it may be necessary to provide remedial training for experienced document analysts and examiners (e.g., failed proficiency test, improper use of a validated protocol). In these instances the *FBI Laboratory Practices for Addressing a Nonconformity* will be followed and a remedial training plan will be developed by the discipline Training Program Manager for the document analyst or examiner to ensure his/her proper level of understanding of the issue at hand.

4.4 Continuing Education for All QDU Personnel

4.4.1 Each employee within the QDU is required to take a minimum of 8 hours of continuing education each review year. The majority of continuing education hours must be related to the topics of questioned documents, forensics in general, leadership, or relevant work practices with no more than 3 of the 8 hours attributed to FBI or Laboratory mandated annual training.

4.4.2 Continuing education training topics and courses in the QDU are chosen by the employee and his/her UC or supervisor. Acceptable topics of training must directly relate to the employee's current job requirements and should focus on maintaining skills and expertise in his/her category of testing. For example, this training may include instrument courses, relevant

workshops at scientific meetings, management courses, training provided in the QDU, factory tours, and computer courses. Discussion between an employee and his/her supervisor and/or Unit Chief will occur prior to receiving continuing education.

5 References

FBI Laboratory Quality Assurance Manual

FBI Laboratory Operations Manual

ASTM E 2388, "Standard Guide for Minimum Training Requirements for Forensic Document Examiners," *Annual Book of ASTM Standards*, Vol 14.02.

Questioned Documents Unit Training Manuals

Questioned Documents Unit Document Analyst Training Syllabus

QDU Standard Operating Procedures Manual

Rev. #	Issue Date	History
7	06/01/18	Added information regarding forensic ethics training.
8	09/26/19	Section 2.1 added “and quarterly” “recording” “recording” “records” and deleted “documenting” “documenting” “documents” Section 2.2 added “ <i>FBI Laboratory Practices for the Forensic Examiner Training Program, FBI Practices for Oral Board Exercises, and FBI Laboratory Practices for Moot Court and Admissibility Hearing Exercises.</i> ” and deleted “and” Section 3 added “evidence handling as well as” “prior to beginning any casework.” Section 3.1 added “including Daubert and ASSTR” Section 3.1.2.2 added “appropriate” and deleted “discipline’s” Redacted

The contractor will receive instruction and training in Laboratory safety, evidence handling procedures, forensic ethics, quality assurance, and the use and application of specialized equipment.” Added “3.3.2 Each new contractor will be provided with the requirements of the training program and a training plan. This training will be developed by the appropriate discipline Training Program Manager, the UC, and/or other appropriate unit personnel.” Re-numbered sections and new “4.4” title changed to “Continuing Education for All QDU Personnel.” Deleted last paragraph, no longer a requirement to review the effectiveness of training.”

Redacted - Signatures on File

Approval

Questioned Documents
 Unit Chief

Date: 09/24/2019

Questioned Documents
 Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
 Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Questioned Documents Unit (QDU) Validation of New Technical Procedures

1 Scope

These procedures apply to all QDU employees involved in validating new technical procedures in the QDU to ensure the scope and accuracy of the procedure to meet the needs of the given application.

2 Internally Developed Technical Procedures

Procedure development and validation reviews will be recorded on the first page of the packet containing the supporting records for the procedure being developed and/or validated. At a minimum, procedure development and validation studies will address the criteria as outlined in *FBI Laboratory Practices for Developing Methods and Validating Technical Procedures*. In addition, examiners/analysts using an internally developed procedure(s) will be competency tested prior to use in casework. Technical review, approval records, and validation study records will be maintained in the QDU training room.

3 Externally Developed Technical Procedures

Prior to applying an externally developed procedure to QDU casework, QDU personnel must demonstrate and record that the technical procedure is sufficiently validated and performs as expected in the FBI Laboratory. This will be done in accordance with the *FBI Laboratory Practices for Developing Methods and Validating Technical Procedures*. In addition, examiners/analysts using an externally developed procedure(s) will be competency tested prior to use in casework. Technical review, approval records, and validation records will be maintained in the QDU training room.

4 Procedure Modifications

Any modifications to a procedure will be recorded on the *Activity and Communication Log* (7-245) (for Legacy cases), the *Case Record Communication Log* (for Forensic Advantage cases), or on a *Major Deviation Request* (7-258) depending on the nature of the change. This will be done in accordance with the *FBI Laboratory Practices for Authorizing Deviations*. If the modification will be permanent, it will be incorporated into a revised issue of the standard operating procedure.

5 References

FBI Laboratory Operations Manual

Rev. #	Issue Date	History
3	03/01/18	1 Scope, deleted “new to”, added “all QDU employees involved in new” “in” 2 Internally Developed Technical Procedures, deleted, “ <i>Technical Procedures and Practices for Validating Technical Procedures</i> ” added, “ <i>Methods and Validating Technical Procedures.</i> ” 3 Externally Developed Technical Procedures, deleted “ <i>Validating Technical Procedures</i> ”, added “ <i>Developing Methods and Validating Technical Procedures.</i> ”
4	09/26/19	1 Scope added “to ensure the scope and accuracy of the procedure to meet the needs of the given application.”

Approval

Redacted - Signatures on File

Questioned Documents
Unit Chief

Date: 09/24/2019

Questioned Documents
Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Questioned Documents Unit (QDU)

Facilitation of Document Examinations by Other Forensic Laboratories

1 Purpose

To establish the procedures for temporarily transferring evidentiary items or images of items to other forensic laboratories for the purpose of facilitating forensic document examinations.

2 Scope

These procedures apply to QDU employees who recognize the need to temporarily transfer evidentiary items or images of items to other forensic laboratories for the purpose of facilitating forensic document examinations due to resources or equipment not available in the FBI Laboratory.

3 Responsibilities

3.1 Upon recognizing the need for an examination that is not conducted in the FBI Laboratory, the QDU employee will:

- Determine the facilitating laboratory that is best equipped to facilitate the examination.
- If the transfer of evidentiary items is necessary, as is the case with destructive examinations, record contributor consent or non-consent for the use of a facilitating laboratory on an *Activity and Communication Log (7-245)*, or Case Communication Log in Forensic Advantage (FA).
- Upon contributor consent, prepare appropriate administrative records to accompany the items or images to be transferred.
- Contact the facilitating laboratory and transfer the items/images and appropriate records either in person or by FedEx. If only the transfer of images is required, these may be transferred electronically.
- Ensure the transfer of evidentiary items is recorded on a *Chain-of-Custody Log (7-243)*, or equivalent in FA, as appropriate.

4 Procedures

4.1 Upon receipt of items in the QDU, the employee will determine if the FBI Laboratory is equipped to conduct all appropriate document examinations on the submitted items. Upon recognizing the need for a document examination that is not conducted in the FBI Laboratory, the employee will determine if another forensic laboratory can conduct the requested examinations. If destructive examinations are required (excluding splitting the sides of an

envelope or removing spiral rings from notebooks for ESDA purposes), the employee will contact the contributor and record contributor consent or non-consent to proceed with destructive examinations. If consent is granted, the evidence will be provided to the other forensic laboratory. Contributor consent/non-consent will be recorded on the *Activity and Communication Log (7-245)*, or Case Communication Log in FA.

4.2 Upon recorded consent, the QDU employee will prepare the following administrative records to accompany the items to the other laboratory:

- A copy of the request for examinations that was submitted with the items.
- An electronic formal request on official Bureau letterhead that includes appropriate administrative information.

4.3 The QDU employee may deliver the items to the other forensic laboratory in person or by FedEx. If only images of the items are required for the completion of the requested examination (e.g., **Redacted** orange postal barcode examinations), the images may be submitted electronically or saved to a disk and submitted in person or by FedEx.

4.3.1 For Legacy cases, if the evidence is sent via FedEx, the following information will be recorded on the QDU examiner's *Chain-of-Custody Log (7-243a)*:

Items	Delivered By	Accepted By	Date	Remarks
(Q/K) for Legacy cases	(QDU employee)	(Mailroom employee)	(Date)	To (laboratory)
	QDU			
(Q/K) for Legacy cases	(Mailroom employee)	FedEx (Tracking #)	(Date)	

Figure 1: Example of information to be recorded on *Chain-of-Custody Log*

4.3.2 For cases in FA, if the evidence is sent via FedEx, the evidence will be transferred out and back in to the Laboratory and recorded electronically in the Case Chain-of-Custody. The FedEx tracking number will be recorded in the Comments field. In the majority of instances, the recording of the FedEx tracking will occur after the QDU employee's evidence transfer to the mailroom employee and will require the forwarding of the *FBI Laboratory Shipping Invoice (7-264 or 7-264 LIMS)* to the QDU.

4.3.3 If the images are submitted to the facilitating laboratory electronically, electronic versions of the administrative records will be included as well.

4.4 Prior to mailing the items to the other forensic laboratory, the QDU employee will complete a *FBI Laboratory Shipping Invoice (7-264 or 7-264 LIMS)*, and deliver the items to the FBI mail room.

(Note: The QDU employee may have to wait for the return of the 7-264 before recording the FedEx tracking number on *Chain-of-Custody Log (7-243a)*, or equivalent in FA.)

4.5 Upon receipt of the items from the other facilitating laboratory, the QDU employee will record the incoming FedEx number in the appropriate block of the *Chain-of-Custody Log (7-243a)*, or equivalent in FA.

4.6 It will be the responsibility of the facilitating laboratory, where applicable, to forward any original report from the facilitating laboratory to the contributor. In addition, the facilitating laboratory will forward a copy of its report to the FBI Laboratory.

4.6.1 Copies of the facilitating laboratory's report and request records will be retained in the case file.

5 References

FBI Laboratory Operations Manual

FBI Laboratory Quality Assurance Manual

QDU Quality Assurance Manual

QDU Standard Operating Procedures Manual

Rev. #	Issue Date	History
5	03/01/18	3.1 bullet 2, deleted “equivalent”, added “Case Communication” 4.1 deleted “then” “have the other laboratory conduct examination(s) of the submitted items” “equivalent”, added “to proceed with destructive examinations. If consent is granted, the evidence will be provided to the other forensic laboratory, “Case Communication Log” 4.2, bullet 1, deleted “Electronic Communication or incoming letter”, added “request for examinations”, bullet 2, added “An electronic”, deleted “to the FBI Laboratory”, at last bullet.
6	09/26/19	Section 4.1 added “(excluding splitting the sides of an envelope or removing spiral rings from notebooks for ESDA purposes.)” Section 4.2 deleted “the following” and list of six requirements for an electronic formal request and added “appropriate administrative.” Section 4.3.2 deleted “transfer” and “o” in on “Record” and added “transferred out and back in to the Laboratory and” “electronically.”

Redacted - Signatures on File

Approval

Questioned Documents
Unit Chief

Date: 09/24/2019

Questioned Documents
Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Questioned Documents Unit (QDU) Case Assignment and Case Receiving

1 Scope

These procedures supplement the corresponding sections of the *FBI Laboratory Operations Manual* (LOM) and apply to Questioned Documents Unit (QDU) Unit Chief who will ensure that all cases will be assigned to examiners that receive requests for examinations using both the Legacy system and Forensic Advantage (FA).

2 Responsibilities

2.1 An Examiner will:

- Advise his/her Supervisor and/or Unit Chief of work schedule changes.
- Accept the transfer of evidence from personnel from another unit serving as the Evidence Analyst (EA). This may be a direct transfer of evidence or the evidence may be placed in the QDU Evidence Storage Room (ESR).
- Receive notification by personnel from another unit serving as the EA (either via email or telephone call) or via FA that evidence is available for examination.
- Receive drug or valuable evidence directly from appropriately trained personnel or retrieve and return to/from the dual-safe in the QDU ESR or return such evidence directly to appropriately trained personnel.

2.2 The Unit Chief will ensure the following is conducted:

- Update and maintain the QDU case assignments in Forensic Advantage.
- Assign requests for examinations to examiners.

3 Procedures

3.1 Determining the Examiner Assignment

The Unit Chief will ensure the assignment of all cases to examiners will be completed. The Unit Chief is notified via FA or by personnel from another unit serving as the EA (via email or telephone) that a case needs to be assigned. These are general guidelines that should be followed to determine the examiner assignment, but the individual assigning a case has latitude in deciding if any, or all, of the following criteria have a bearing on a particular case assignment:

- The number of cases that are currently assigned to the examiner.

- The complexity of the cases that are currently assigned to the examiner.
- The number of deadline cases that are currently assigned to the examiner.
- If a case is received on the weekend or after hours, the individual assigning the case will refer to the weekly duty list for the examiner assignment.

3.1.1 Major Case Assignment

Major cases are assigned based on the caseload and availability of an examiner. Typically, all subsequent requests for examinations in a major case are assigned to the examiner who was assigned the first submission.

The Unit Chief may direct other examiners to assist in the examination of major cases, cases with voluminous items, multiple requests for examinations, or cases of a complex nature.

3.1.2 Special/Weekend Case Assignments

If an immediate request for examination is received after normal business hours or on the weekend, the assignment of the case will be based on the weekly duty list, which is maintained on the unit calendar. The Unit Chief will advise the examiner's supervisor.

4 References

FBI Laboratory Operations Manual

FBI Laboratory Quality Assurance Manual

QDU Quality Assurance Manual

Rev. #	Issue Date	History
4	03/01/18	1 Scope, deleted “assigns” “or employees”, added “Unit Chief” “will ensure that all will be assigned to examiners” 2 Responsibilities, deleted “Case Assignment Program Manager (CAPM)”, added “Unit Chief”, deleted “Case Storage Facility (CSF), added “Evidence Storage Room (ESR).”, added “or retrieve to/from the dual-safe in the QDU ESR” “or”. 2.2, deleted “The CAPM or designee will:”, added “The Unit Chief will ensure the following is conducted:”, deleted “case Management System”, added, “case assignments in Forensic Advantage” 3 Procedures, first sentence, deleted “The CAPM or designee is responsible for” “or designee”, added “The Unit Chief will ensure” 3.1.2 Special/Weekend Case Assignments, deleted “If this request is received and assigned to an examiner by the” “the CAPM” “and the examiner’s supervisor will be advised.” added, “The” “ will advise the examiner’s supervisor.”
5	09/26/19	Section 2.1, second bullet, deleted “Request Coordinator (RC)” added “Evidence Analyst (EA)” Section 2.1, third bullet, deleted “RC” added “EA.” Section 3.1 deleted “RC” added “EA.”

Redacted - Signatures on File

Approval

Questioned Documents
Unit Chief

Date: 09/24/2019

Questioned Documents
Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Questioned Documents Unit (QDU) Blind Verification Procedures

1 Purpose

These procedures outline the method used in the QDU for administering a blind verification (BV) to comply with the *FBI Laboratory Practices for Blind Verification*.

2 Scope

2.1 These procedures apply to the Unit Chief, Examiners and Technical Leads assigned to the QDU.

2.2 A BV is the independent second examination of an item(s) of evidence in a forensic case by another examiner qualified and authorized in the same category of testing who does not know the conclusion(s) of the original examiner. In the QDU, a BV will be conducted on single submission comparison cases involving a single examination type from the categories of testing of the unit to include handwriting, printing, and footwear/tire tread examinations. The criteria for a BV will be comparison cases where there are two (2) or fewer questioned items/questioned impressions and two (2) or fewer known items that have been submitted in the same submission. A BV can be conducted on cases involving identifications, eliminations, no conclusions, and qualified opinions. A BV will not be conducted on intelligence casework, biohazard cases, classified or grand jury cases, or cases involving drug and/or valuable evidence and unknown substance cases. Additionally, when there are fewer than three (3) examiners qualified and authorized in a category of testing, a blind verification will not be conducted.

2.3 The Unit Chief will ensure cases that meet the criteria for a BV will be evaluated by the Technical Leader to ensure the BV process is not excessively burdensome (e.g., questioned item is a notebook).

3 Responsibilities

3.1 The Unit Chief will ensure:

- Cases meeting the BV criteria are assigned a blind verifier.
- When exigent circumstances arise, approve a minor deviation to exclude the BV on a case that meets the BV criteria.
- The number of blind verifications are tracked annually.
- The number of BVs is evaluated and recorded on an annual basis to ascertain that a representative number of associations and non-associations are conducted in the applicable examination types.
- A blind verifier is assigned on a rotating basis.

- To designate another examiner within the same category of testing to serve in the technical leader role if the Technical Leader serves as either the original examiner or the blind verifier.

3.2 The Original Examiner will:

- Evaluate evidence to determine if it meets the QDU criteria for BV, and notify the Unit Chief/Technical Leader.
- Perform the necessary examinations.
- Ensure that the Technical Review has been completed.
- Transfer the items for examination to the blind verifier.
- Provide case notes and results electronically in Forensic Advantage (FA).

3.3 The Technical Leader or BV Coordinator (Qualified Examiner designated to serve in this role if Technical Leader is unavailable) will:

- When exigent circumstances arise, approve a minor deviation to exclude the BV on a case that meets the BV criteria.
- Review the conclusion(s) reached by the original examiner and the blind verifier.
- Determine whether the results of the original examiner and blind verifier are acceptable.

3.4 The Blind Verifier will:

- Independently perform the necessary examinations for the BV.
- Generate examination records.
- Provide case notes and results electronically to the Technical Leader/BV Coordinator.
- Once evaluated by the Technical Leader/BV Coordinator, provide case notes and results electronically in FA.

4 Procedures

4.1 The original examiner evaluates the listing of evidence received in each submission to determine if it meets the QDU criteria for BV. If it does, the original examiner will notify the Technical Leader/BV Coordinator for the BV assignment. The Technical Leader/BV Coordinator will copy the Unit Chief via email of the BV assignment.

4.1.1 If a case meets the QDU criteria for BV but circumstances are such that a BV cannot be conducted (e.g., case needs to be examined and returned expeditiously to the contributor), the Technical Leader or Unit Chief (non-technical issue), will record on the *Activity and Communication Log (7-245)*, or FA Case Record Communication Log, as applicable, the reason why the BV was not conducted, and the requirement being deviated from to include document title, revision number, and date.

4.2 The original examiner will conduct the necessary examinations as outlined in the *QDU Quality Assurance Manual* and the *QDU Standard Operating Procedures Manual*. Additionally, the original examiner will record case notes and prepare a report in accordance with FBI Laboratory practices.

4.3 Upon completion of the examination, the original examiner will submit the completed case records, report copies, and transfer the evidence to a designated technical reviewer. Upon receiving these items, the technical reviewer will conduct a technical review and verify comparisons and database associations.

4.4 Upon completion of the examination and after the technical review has been completed and recorded, the original examiner will provide the case notes and results electronically in FA.

4.4.1 The original examiner will transfer the original items directly to the blind verifier in accordance with FBI Laboratory practices.

4.5 The blind verifier will independently perform the necessary examinations, generate the appropriate case notes, and record his/her conclusion(s).

4.6 Upon the completion of the blind verifier's examinations, the blind verifier will provide the completed case notes and results electronically to the Technical Leader/BV Coordinator.

4.7 Once evaluated by the Technical Leader/BV Coordinator, provide case notes and results electronically in FA.

4.8 The original examiner and blind verifier are prohibited from discussing their examinations until the Blind Verifier has provided their results electronically to the Technical Leader/BV Coordinator.

4.9 The Technical Leader will review the results of the original examiner and the blind verifier to determine if they are in agreement. Results of this review and resolution of differences in original and BV conclusions will be recorded in the case record communication log.

4.9.1 In order to immediately report Identification or Elimination, the original examiner, technical reviewer and blind verifier will all be in agreement. If they are not in agreement, the Technical Leader, original examiner, blind verifier and technical reviewer (if necessary) will meet to address the concerns of the BV and attempt to reach a consensus agreement. If a consensus agreement is reached, modifications to existing notations and/or results will be made and a report will be issued with the consensus conclusion. If a consensus is not reached and in the opinion of the Technical Leader all the BV concerns have not been properly addressed by the original examiner the Technical Leader will refer to the LOM - *FBI Laboratory Practices for Resolution of Scientific or Technical Disagreement* if consultation does not resolve differences of

opinion on a BV.

4.9.2 When inconclusive or qualified opinions are reached by the original examiner, the Technical Leader may establish an acceptable range of conclusions. The acceptable range will not exceed one level of opinion. If the results of the original examiner and blind verifier do not fall within the acceptable range, the Technical Leader will refer to the LOM - *FBI Laboratory Practices for Resolution of Scientific or Technical Disagreement* if consultation does not resolve differences of opinion on a BV.

4.10 If the Technical Leader serves as either the original examiner or the blind verifier, the Unit Chief will designate another examiner within the same category of testing to serve in the Technical Leader role.

4.11 After conclusions of the original examiner and blind verifier have been reviewed, the Unit Chief will conduct the administrative review.

5 References

FBI Laboratory Operations Manual

QDU Quality Assurance Manual

QDU Standard Operating Procedures Manual

Rev. #	Issue Date	History
6	03/01/18	<p>2 Scope, added who this document applies to. Under 2 Scope, deleted, “single examination” “typewriting, shoe print on document cases”, “with five (5) or fewer questioned items and two (2) or fewer known items.” “ In addition, the criteria for a BV on shoe print/tire tread cases will be comparison cases with (10) or fewer questioned impressions and two (2) or fewer known sources. Unit Chief/Designee” and added “qualified and authorized in the same category of testing, where there are two (2) or fewer questioned items/questioned impressions and two (2) or fewer known items that have been submitted in the same submission. classified or or cases involving drug and/or valuable evidence and unknown substance cases qualified and authorized. The Unit Chief will ensure cases.”</p> <p>3.1, deleted, “designate” “Generate a <i>QDU-27 Blind Verification Form</i> (Appendix A).” “When exigent circumstances arise, the Technical Leader/Unit Chief/Designee will approve a minor deviation to exclude the BV on a case that meets the BV criteria.” “Accept and retain the completed case records, reports, copies, and appropriate administrative paperwork from the original examiner, until after the BV has been completed.” “Review the conclusion(s) reached by the original examiner, until after the BV has been completed.” “Review the conclusion(s) reached by the original examiner and the blind verifier.” “Determine whether the results of the original examiner and blind verifier are acceptable range of conclusions and whether the set of conclusions falls within the acceptable range.” 3.1, added “ensure” “Cases” “When exigent circumstances arise, approve a minor deviation to exclude the BV on a case that meets the BV criteria.” “The number of blind verifications are tracked annually.” “The number of BV’s is evaluated and recorded on an annual basis to ascertain that a representative number of associations and non-associations are conducted in the applicable examination types.” “A blind verifier is assigned on a rotating basis.” “To designate another examiner within the same category of testing to serve in the technical leader role if the Technical Leader serves as either the original examiner or the blind verifier.” 3.2, deleted “Case Assignment Program Manager (CAPM) will:” “Track the number of blind verifications annually.” “Technical Leader” “Assign a blind verifier on a rotating basis.” “Maintain each completed <i>QDU – 27</i>.” 3.2, deleted all of the original “3.2 The Case Assignment Program Manager (CAPM) will:” information and new 3.2 information changed to the “Original Examiner will:” “Evaluate evidence to determine if it meets the QDU criteria for BV and notify the Unit Chief/Technical Leader.” “Perform the necessary examinations.” “Ensure that the Technical Review has been completed” “Transfer the items for examination to</p>

the blind verifier.” “Provide case notes and results to the Unit Chief/Technical Leader.” 3.3, deleted, all of “The Original Examiner will:” information. New “3.3” information “The Technical Leader will : When exigent circumstances arise, approve a minor deviation to exclude the BV on a case that meets the BV criteria.” “Review the conclusion(s) reached by the original examiner and the blind verifier.” Determine whether the results of the original examiner and the blind verifier are acceptable.” All original “3.4 The Blind Verifier will: information deleted. The new “3.4” information added, “The Blind Verifier will: Independently perform the necessary examinations for the BV.” “Generate examination records.” Provide notes and results to the Unit Chief/Technical Leader.” Deleted all of the information for “3.5 A Technical Reviewer will: An Administrative Reviewer will:”, “3.6 An Administrative Review will:”, and “3.7 A Technical Leader will:” 4.1, deleted “CAPM evaluates the listing of evidence received in each Laboratory submission to determine if it meets the QDU criteria for BV. If it does the CAPM will assign an examiner for the BV on a rotating basis to ensure an even distribution of BV assignments in the QDU. If one is not assigned, the original examiner will notify the CAPM and a blind verifier will be assigned.” “Technical Leader.” 4.1, added, “original examiner evaluates the listing of evidence received in each submission to determine if it meets the QDU criteria for BV. If it does, the original examiner will notify the Unit Chief/Technical Leader and a BV will be assigned.” 4.1.1, added, “Technical Leader or Unit Chief (non-technical issue). 4.3, deleted, “ly” “the examination records”, “reported” and added, “transfer the”, “conduct a”, “when applicable”, and “verify comparisons and database associations.” 4.4, deleted, “transfer the completed case records, report copies, and administrative paperwork”, “directly” “unit chief/designee.” and added, provide the case notes and results” Unit Chief/Technical Leader.” 4.4.1, deleted, “along with the appropriate administrative paperwork.” 4.5, added, “independently” “generate the appropriate case notes” 4.6, delete, “transfer” “unit chief/designee.” added “provide” “Unit Chief/Technical Leader.” Delete all of the original 4.8 and 4.9 information. “4.10” changed to “4.8”, deleted “unit chief/designee will initiate a *QDU* – 27 to record.” New 4.8 information, “The Technical Leader will review the results of the original examiner and the blind verifier to determine if they are in agreement. Results of this review and resolution of differences in original and BV conclusions will be recorded in the case record communication log.” New 4.8.1 added, “In order to immediately report Identification or Elimination:, the original examiner, technical reviewer and blind verifier shall all be in agreement. If

they are not in agreement, the Technical Leader, original examiner, blind verifier and technical reviewer (if necessary) will meet to address the concerns of the BV and attempt to reach a consensus agreement. If a consensus agreement is reached, modifications to existing notations and/or report will be made and the report will be issued with the consensus conclusion. If a consensus is not reached and in the opinion of the Technical Leader all the BV concerns have not been properly addressed by the original examiner and technical reviewer, the Technical Leader will refer to the LOM – *FBI Laboratory Practices for Resolution of Scientific or Technical Disagreement* if consultation does not resolve differences of opinion on a BV. New 4.8.2 added, “When inconclusive or qualified opinions are reached by the original examiner and technical reviewer, the Technical Leader may establish an acceptable range of conclusions. The acceptable range will not exceed one level of opinion. If the results of the original examiner and blind verifier do not fall within the acceptable range, the Technical Leader will refer to the LOM – *FBI Laboratory Practices for Resolution of Scientific or Technical Disagreement* if consultation does not resolve differences of opinion on a BV.” All 4.12 information deleted. 4.12 changed to 4.9. New 4.9 added, If the Technical Leader serves as either the original examiner or the blind verifier, the Unit Chief will designate another examiner within the same category of testing to serve in the Technical Leader role.” 5 Records information deleted. Changed “6 Records” to “5 Records.”

- 7 09/26/19 Section 2.1 changed “Lead” to “Leads”. Section 2.2 changed “items” to “item(s)” and added “a single examination type from” and “the” and deleted “any of the major”. Section 3.2 deleted “to the Unit Chief/Technical Leader” and added “electronically in Forensic Advantage (FA).” Section 3.3 added “or BV Coordinator (Qualified Examiner designated to serve in this role if Technical Leader is unavailable).” Section 3.4 deleted “in FA to the Unit Chief/Technical Leader”, added “electronically to the Technical Leader/BV Coordinator”, “Once evaluated by the Technical Leader/BV Coordinator, provide case notes and results electronically in FA.” Section 4.1 deleted “Unit Chief”, “and a” “will be assigned.” and added “/BV Coordinator for the”, “assignment.” “The Technical Leader/BV Coordinator will copy the Unit Chief via email of the BV assignment.” Section 4.1.1 deleted “policy” and added “requirement”. Section 4.2 deleted “report results” and added “case notes” and “prepare a report” and deleted lowercase p and added uppercase P in “Practices.” Section 4.4 deleted “to the Unit Chief/Technical Leader” and added “electronically in FA.” Section 4.4.1 deleted lowercase p and added upper case P in “Practices.” Section 4.6 deleted “in FA to the Unit

Chief/Technical Leader” and added “electronically to the Technical Leader/BV Coordinator.” Section 4.7 added “Once evaluated by the Technical Leader/BV Coordinator, provide case notes and results electronically in FA.” Original sections 4.7 through 4.10 changed to 4.8 through 4.11. Updated 4.8 changed “have’ to “has”, deleted “in FA”, “the Unit Chief/Technical Leader”, added “Blind Verifier” “electronically to the Technical Leader/BV Coordinator.” Updated 4.9.1 deleted “shall”, added “will” and deleted “and technical reviewer.” Updated 4.9.2 deleted “and technical reviewer.”

Redacted - Signatures on File

Approval

Questioned Documents
Unit Chief

Date: 09/24/2019

Questioned Documents
Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Questioned Documents Unit (QDU) Administrative Structure and Operating Guidelines

1 Scope

This document applies to the Unit Chief, Supervisors, Technical Leader, Examiners, Document Analysts and Contractors assigned to the QDU.

The QDU operates in accordance with the *FBI Laboratory Operations Manual (LOM)* and the *FBI Laboratory Quality Assurance Manual (QAM)*. These manuals are supplemented by the procedures contained in the unit's quality system manuals. All unit personnel will adhere to all relevant FBI Laboratory policies and practices of the LOM, QAM, and QDU quality system documents.

2 Mission, Organization, and Management Structure

The mission of the QDU is to provide scientific examination of physical evidence in the general areas of questioned documents and footwear and tire impressions, to report findings and provide testimony relating to these examinations in legal proceedings, to provide training to the law enforcement community, and to render field support to the FBI and all other duly authorized law enforcement agencies world-wide.

2.1 The QDU is assigned to the Scientific Analysis Section (SAS) of the FBI Laboratory Division (LD).

2.2 The administrative structure of the QDU is designed to clearly define a chain-of-command and to establish a list of responsibilities and duties.

2.3 The QDU is comprised of a unit chief (UC), supervisory document analyst-forensic examiners (also referred to as supervisors), technical leaders (TL), document analyst-forensic examiners (also referred to as examiners), document analysts (also referred to as analysts or technicians), Redacted

2.3.1 Supervisors, technical leaders, and footwear/tire tread group report directly to the UC.

2.3.2 Examiners and analysts report directly to their assigned supervisor.

2.3.3 Contractors report directly to the UC.

2.4 QDU examiners perform examinations in one of two categories of testing. These two categories of testing are General Document Examination and Impression Evidence (also referred to as footwear and tire impression examinations).

2.4.1 Analysts assist examiners assigned to the Footwear and Tire Group, Questioned Documents Group or the pool system.

2.4.2 Analysts support all examiners who perform general document examinations. Analysts are primarily responsible for processing cases for the examiners but may also work with databases and/or perform administrative tasks for the unit.

2.5 Both categories of testing in the QDU have a TL.

2.5.1 The TLs will notify the UC when issues arise concerning the technical operations of his/her category of testing.

Redacted

2.7 The current assignment roster is maintained by the UC.

3 Responsibilities

3.1 Unit Chief

- Oversees the daily operations of the unit, including hiring, budget, unit programs, liaison, new technologies, training, and proficiency testing.
- Performs administrative review of Laboratory reports.
- Makes critical evaluations on the acceptance of cases in the unit.
- Maintains the cases received in the unit via Forensic Advantage and/or a database.
- Conducts annual Performance Appraisal Reviews on all unit employees who report directly to him/her.
- Observes and evaluates activities of personnel on a regular basis.
- Sets performance measures by which the unit's mission is fulfilled.
- Maintains regular contact with the SAS Chief.
- Handles special projects from the SAS Chief.
- Provides and recommends formal training opportunities for employees to ensure continuing education.
- Oversees unit meetings.
- Attends regular SAS meetings.
- Maintains direct contact with other appropriate units within the LD.
- Maintains contact with other appropriate units within the FBI.
- Prepares written and oral communications in conjunction with the field, other divisions, and the law enforcement community.

- Maintains, expands, and improves liaison contacts to enhance the attainment of unit performance measures.
- Provides 24-hour availability to address national and international crises.
- Manages assigned programs according to FBI/DOJ policies, guidelines, and procedures.
- Ensures that the QDU complies with all FBI and LD policies.
- Ensures that the QDU's quality assurance program complies with the QAM and LOM requirements.
- Ensures that one qualified individual is designated to serve as TL in each category of testing.
- Ensures that the assignment of casework is distributed to examiners based on expertise and caseload.
- Ensures the examiner contacts the contributor every 60 calendar days the evidence has been in QDU and no examinations have been conducted. Approves corrective actions prior to submission to the Forensic Analysis Support Unit (FASU), if required. Corrective actions may not be submitted to FASU without the prior approval of a TL from that category of testing.
- Authorizes and approves minor deviations to technical SOPs.
- Authorizes and approves major deviations prior to submission to FASU. Deviations to technical procedures may not be submitted to FASU without the prior approval of a TL from that category of testing.
- Ensures an annual review is performed of the unit's quality system, including the technical standard operating procedures in each category of testing, training, and proficiency testing.

3.2 Supervisor

- Serves as a direct supervisor of assigned unit personnel.
- Conducts annual Performance Appraisal Reviews on all unit employees who report directly to him/her.
- Ensures compliance with current unit and LD policies, practices, and procedures.
- Performs technical reviews of casework in his/her category of testing.
- Performs administrative reviews of Laboratory reports, if requested by the UC.
- Observes and evaluates activities of employees who report directly to him/her on a regular basis.
- Communicates recommendations to the UC of assigned unit personnel who have exemplary performance and have earned recognition (e.g., awards and rewards). Conversely, responsible for informing the UC of assigned unit personnel with poor attendance, poor work performance, and behavioral problems.

- Maintains competency in the General Document Examination or Impression Evidence (footwear and tire impression examinations) categories of testing through annual proficiency tests.
- Receives, assesses, and examines evidentiary material, ensuring the integrity of the evidence is maintained while in his/her custody.
- Conducts critical evaluation of evidence in order to properly manage examinations performed on cases.
- Performs comprehensive and authoritative analyses of evidence.
- Provides technical leadership and communication with contributors in regard to case acceptance and feasibility of requested examinations.
- Prepares case notes, Laboratory reports, and other relevant communications to document facts pertaining to evidence received, analyses performed, procedures used, and the significance of the results obtained.
- Researches, develops, and validates new technical procedures for use in casework.
- Prepares and presents ideas, recommendations, conclusions and analytical procedures to peers, superiors, subordinates and the public, including courtroom testimony.
- Mentors new employees in his/her area of expertise.
- Represents the FBI Laboratory with respect to the collection, submission, and examination of evidence, as well as courtroom testimony.
- Provides support and analyses at major crime scenes, when needed.
- Provides 24-hour availability to address national and international crises.
- Handles special projects assigned by the UC.
- Serves as acting UC, when designated.

3.3 Technical Leader

- Accountable for technical operations within his/her category of testing, including training, quality assurance, proficiency testing, and validation.
- Authorizes suspension/termination of operations within his/her category of testing if it is determined that current casework operations have been compromised. If it becomes necessary to suspend operations, he/she must notify the UC, and is responsible for documenting the situation in an electronic communication (EC) to inform executive management.
- Approves unit technical documents (e.g., standard operating procedures, documents related to training and testimony) before issuance. Directs, reviews, and approves all developmental validation, internal validation, or validation of a material modification within his/her category of testing.
- Manages the research, development, and validation of new technical procedures for use in casework within his/her category of testing.
- Ensures compliance with current unit and LD policies, practices, and procedures.

- Provides technical expertise and approval to UC for major deviations and corrective actions.
- Maintains competency in the General Document Examination or Impression Evidence (footwear and tire impression examinations) categories of testing through annual proficiency tests.
- Ensures that examiners and analysts in his/her category of testing are qualified for their assigned work responsibilities in accordance with the QAM and LOM requirements.
- Serves as an SME for court testimony monitoring for his/her category of testing.
- May delegate his/her duties to a qualified examiner in the same category of testing, but the final work product remains the responsibility of the TL.
- Serves as an examiner in the category of testing in which he/she is the TL.
- Trains and mentors new employees in his/her area of expertise.
- Serves as acting UC, when designated.
- Serves as program manager for the Blind Verification Procedures in QDU.

3.4 Examiner

- Ensures compliance with current unit and LD policies, practices, and procedures.
- Maintains competency in the General Document Examination or Impression Evidence (footwear and tire impression examinations) categories of testing through annual proficiency tests.
- Receives, assesses, and examines evidentiary material, ensuring the integrity of the evidence is maintained while in his/her custody.
- Conducts critical evaluation of evidence in order to properly manage examinations performed on cases.
- Performs comprehensive and authoritative analyses of evidence.
- Provides technical leadership and communication with contributors in regard to case acceptance and feasibility of requested examinations.
- Prepares case notes, Laboratory reports, and other relevant communications to document facts pertaining to evidence received, analyses performed, procedures used, and the significance of the results obtained.
- Maintains the chain of custody and ensures technical accuracy of casework.
- Performs technical review of Laboratory reports in his/her category of testing, if requested by the UC or a supervisor.
- Performs administrative review of Laboratory reports, if requested by the UC.
- Researches, develops, and validates new technical procedures and equipment for use in casework.
- Prepares and presents ideas, recommendations, conclusions and analytical procedures to peers, superiors, subordinates and the public, including courtroom testimony.
- Trains and mentors new employees in his/her area of expertise.

- Represents the FBI Laboratory with respect to the collection, submission, and examination of evidence, as well as courtroom testimony.
- Mentors, reviews daily work, and evaluates performance of trainees assigned to him/her for casework.
- Provides support and analyses at major crime scenes.
- Manages a major program within the unit (GS-14 only), where applicable.
- Provides 24-hour availability to address national and international crises.
- Handles special projects assigned by the UC.
- Serves as acting UC, when designated.

3.5 Document Analyst

- Ensures compliance with current unit and LD policies, practices, and procedures.
- Provides technical and operational assistance to examiners in the unit.
- Conducts preliminary case preparation including administrative paperwork, imaging of evidence, and creating a permanent record.
- Maintains the chain of custody and ensures technical accuracy of preliminary casework, ensuring the integrity of the evidence is maintained while in his/her custody.
- Performs database searches, indented writing examinations, watermark searches, and typewriting classifications under the direction of an examiner.
- Under direction of an examiner, inventories evidence, provides check-in notes, and acknowledges receipt of the case.
- Transfers evidence as directed to the Operational Projects Unit
- Provides appropriate records pertaining to the preliminary examinations performed on evidence received, results obtained, and procedures used.
- Prepares and presents ideas, recommendations, database results, and analytical procedures to peers, superiors, and the public, including courtroom testimony.
- Trains and mentors new employees in his/her area of expertise.
- Handles special projects assigned by the UC.
- Assists in maintenance of databases.
- Conducts performance checks on appropriate unit equipment.
- Assists examiners in trial preparation by creating courtroom exhibits.
- Assists examiners in preparation of discovery requests.
- Maintains competency in the General Document Examination or Impression Evidence (footwear and tire impression evidence) categories of testing through annual proficiency tests. Performs administrative duties in support of the unit, as assigned.
- Performs related duties, as required.
- Returns evidence to other units and mails evidence to contributors

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4 Personnel Matters

4.1 All unit personnel are presented with an annual performance appraisal review by his/her immediate supervisor. Each employee is also presented with a mid-year performance review.

4.2 Requests for sick leave, annual leave, compensatory leave, overtime, and leave without pay are approved by the UC or the employee's supervisor.

4.3 Training opportunities, presentations, participation in schools, unit tours, and other matters must be approved by the UC or supervisor.

4.4 Travel vouchers will be reviewed and approved by the UC or a UC from another unit.

4.5 Annually, all unit personnel must meet the required hours of continuing education as set forth by the FBI LD and the QDU.

4.5.1 Each QDU employee will ensure his/her continuing education hours are documented in Virtual Academy. Each training opportunity that is not mandated by the FBI or the LD must be approved by the student's immediate supervisor.

5 Field Office Assistance/Crime Scene Response

5.1 Requests for QDU assistance at crime scenes must be directed to the UC of the Evidence Response Team Unit. These requests must be approved by the QDU Unit Chief who must also seek approval from the SAS Chief.

5.2 Requests for QDU participation in a Hazardous Evidence Analysis Team deployment or exercise must be directed to the QDU Unit Chief, and from the Unit Chief of the Scientific Response and Analysis Unit.

Rev. #	Issue Date	History
2	03/01/18	<p>1 “Introduction” deleted and “Scope” added. 1 Scope, added to whom this document applies to. Deleted the “mission” statement under 1 Scope. Added the word “Mission” and the “mission” statement at 1 Mission, Organization and Management Structure. 2.1 deleted Forensic Analysis Branch of the Science and Technology Branch. Section 2.3 grammatical corrections, deleted “lead document analyst” and “lead analyst” information and added “or technicians” “and contract program managers.” 2.3.1, grammatical corrections, deleted “lead analyst” and added “technical leader, and footwear/tire tread group.” 2.3.2, grammatical corrections, added “their” to assigned supervisor. 2.4, added “examiners” perform examinations in one of two categories of testing. 2.6, added “or serving as project managers.” 2.7, deleted “or designee.” 3.1, bullet 4, added “via Forensic Advantage and/or a database.” 3.1, bullet 17, deleted “Serves as a technical expert for the FBI pertaining to the collection, submission, and examination of evidence, as well as courtroom testimony and current legal issues.” 3.1, bullet 19, deleted “Where applicable, maintains competency by participating in unit proficiency testing program in his/her category of testing, where applicable.” 3.1, bullet 26, deleted “review of cases over 60 days is conducted.” And added “examiner contacts the contributor every 60 calendar days the evidence has been in QDU and no examinations have been conducted.” 3.1, bullet 30, added Ensures an annual review is performed of the unit’s quality system, including the technical standard operating procedures in each category of testing, training, and proficiency testing. 3.3, bullet 8, added “in the General Document Examination or Impression Evidence (footwear and tire impression examinations) categories of testing through annual proficiency tests. 3.3, bullet 7, added in the General Document Examination or Impression Evidence (footwear and tire impression examinations) categories of testing through annual proficiency tests. 3.3, bullet 14, added, Serves as program manager for the Blind Verification Procedures in QDU. 3.4, bullet 2, added, in the General Document Examination or Impression Evidence (footwear and tire impression examinations) categories of testing through annual proficiency tests. Deleted all of 3.5 Lead Analyst. Changed “3.6 to “3.5” Document Analyst. 3.5, bullet 16, added, “in the General Document Examination or Impression Evidence (footwear and tire impression evidence) categories of testing through annual proficiency tests. Changed “3.7” to “3.6” Contractor. 3.6, bullet 2, added “and/or project manager duties.” 4.5.2, deleted “recorded on a <i>QDU-25 Questioned Documents Unit Training Course Assessment</i> form” added, “maintained within the QDU. 5.1, added “Unit”, deleted “or designee.” 5.2, deleted, “or</p>

designee, Chemical Biological, Radiological, and Nuclear Sciences Unit”, added “nit Chief” and “Scientific Response and Analysis Unit.”

- 3 09/26/19 1 Scope, second paragraph deleted “policies, practices, and.” Section 2.3.1 added “s” to leader and “group.” Section 2.3.2 grammar correction. Section 2.4.1 reworded paragraph “Analysts assist examiners assigned to the Footwear and Tire Group, Questioned Documents Group or the pool system. Section 2.4.2 deleted “in the CPC.” Section 3.2 seventh bullet deleted “outstanding” added “exemplary.” Section 3.2 deleted bullet “Serves as an SME for court testimony monitoring for his/her category of testing.” Section 3.4, eleventh bullet added “equipment.” Section 3.4 deleted bullet “Serves as an SME for court testimony monitoring for his/her category of testing.” Section 3.5, seventh bullet deleted “Forensic Imaging Unit”, added “Operational Projects Unit.” Section 3.5 added bullet “Return evidence to other units and mail evidence to contributors.” Deleted section 4.5.2, evaluation of effectiveness of continuing education training is no longer required.”

Approval

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Questioned Documents
Unit Chief

Date: 09/24/2019

Questioned Documents
Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019

Questioned Documents Unit (QDU)

FBI Approved Standards for Scientific Testimony and Report Language for Forensic Handwriting Comparisons

1 Purpose

This document provides examples of the scientifically-supported conclusions and opinions approved for reporting examination conclusions and offering expert opinion statements during handwriting comparison testimony by Forensic Document Examiners within the QDU. It is noted that these examples are not intended to be all inclusive and may be dependent upon the precedent set by the judge or locality in which a testimony is provided. Further, these examples are not intended to serve as precedent for other forensic laboratories and do not imply that statements by other forensic laboratories are incorrect, indefensible, or erroneous.

2 Scope

This document applies to QDU Forensic Document Examiners who prepare a *FBI Laboratory Report (7-1, 7-1 LIMS)* and/or provide testimony on handwriting comparisons. This requirement takes effect as of the date of this document and is not retroactive to previously issued reports or testimony by the QDU Forensic Document Examiners.

3 Responsibilities

3.1 The Examiner will ensure that a *Laboratory Report* or testimony is consistent with the statements contained within this document.

3.2 The Administrative and Technical Reviewers will ensure that QDU *Laboratory Reports* contain language consistent with the statements contained within this document.

3.3 The Unit Chief will ensure the QDU testimony complies with the statements contained within this document.

4 Statements Approved for FBI Questioned Document Unit, Forensic Document Examiners Testimony and/or Laboratory Reports Regarding Handwriting Comparisons

4.1 Identification

The opinion that two samples of handwriting originated from the same writer(s) due to significant characteristics in agreement, both in quality and quantity, such that the examiner would not expect to see the same combination of characteristics repeated in a handwriting sample of another writer. There are no fundamental differences to suggest another writer and

there are no significant limitations with the items examined. Unexplained characteristics are far outweighed by the combined effect of agreement in all other details.

Note — Due to the impossibility of examining all handwriting, an identification to the exclusion of all others can never be proven. However, an identification opinion is supported by research, which has shown that as more significant characteristics are found in agreement, it becomes less likely to find that same combination of characteristics in a handwriting sample from another writer.

4.2 May Have (Qualified Opinion)

This opinion is based on the prevalence of characteristics in common between two bodies of writing; however, a limitation(s) exists which prevents an identification. This is a less than definitive opinion and requires an explanation of limiting factors.

4.3 No Conclusion

The examiner cannot determine whether the items being compared were or were not prepared by the same writer(s), usually because of such factors as lack of comparability or lack of clarity and detail in the submitted items, which may significantly limit meaningful examinations. In instances when meaningful examinations can be conducted, the weight of the combination of characteristics observed in common is counterbalanced by the weight of the combination of inconsistencies or unexplained characteristics observed. This opinion requires an explanation of limiting factors.

4.4 May Not Have (Qualified Opinion)

This opinion is based on the prevalence of dissimilarities between two bodies of writing; however, a limitation(s) exists which prevents an elimination. This is a less than definitive opinion and requires an explanation of limiting factors.

4.5 Elimination

An opinion that two bodies of writing were not prepared by the same writer(s) due to disagreement in significant characteristics. Any similarities are far outweighed by the lack of agreement in all other details. No significant limitations are present.

5 Statements Not Approved For FBI QDU Forensic Document Examiner Testimony and/or Laboratory Reports

The following are not approved for use by the examiner; however, it is acknowledged that there may be circumstances outside the control of the examiner, such as in courts of law that require the examiner to deviate from the statements set forth below.

5.1 Exclusion of All Other Writers

An examiner may not state that two handwriting samples originated from the same writer to the exclusion of all other writers.

5.2 Absolute or Numerical Certainty

An examiner may not state a level of certainty in his/her opinion that is absolute or numerically calculated.

5.3 Error Rate

An examiner may not state that the method used has a zero error rate or is infallible.

6 Laboratory Report Reviews

The content of a QDU *Laboratory Report* must be reviewed per the *QDU Case Records and Review for Legacy Cases* and *QDU Case Records and Review for Cases in Forensic Advantage (FA)*, as appropriate, ensuring compliance with the approved statements in this document.

7 Testimony Reviews

Forensic Document Examiner testimonies will be reviewed following the *FBI Laboratory Practices for Court Testimony Monitoring*. The review will ensure compliance with the statements in this document.

8 References

ASCLD/LAB-International Supplemental Requirement for the Accreditation of Forensic Science Testing and Calibration Laboratories, American Society of Crime Laboratory Directors/Laboratory Accreditation Board, Garner, NC, 2011

FBI Laboratory Quality Assurance Manual

FBI Laboratory Operations Manual

Rev. #	Issue Date:	History:
1	12/03/15	Changed "Report(s) of Examination" to "Laboratory Report(s)" throughout document. Section 4.1 added "with the items examined" and replaced the last sentence with a Note. Added "is a less than definitive" to Sections 4.2 and 4.4. Sections 4.1, 4.3, and 4.5 made writer plural. Section 4.5 changed "because of" to "due to". Section 6 added " <i>for Legacy Cases and QDU Case Records and Review for Cases in Forensic Advantage (FA)</i> , as appropriate". Made grammatical and format changes throughout document where necessary.
2	03/01/18	2 Scope deleted "policy" and added "requirement". 3.2 deleted "or designee". 3.3 deleted "or designee" "assess if" and added "ensure the". Section 4.1 under Note, changed the word "arrangement" to "combination."

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Approval

Questioned Documents
Unit Chief

Date: 02/28/2018

Questioned Documents
Technical Leader

Date: 02/28/2018

QA Approval

Quality Manager

Date: 02/28/2018

Questioned Documents Unit (QDU)

FBI Approved Standards for Scientific Testimony and Report Language for Forensic Examination of Footwear and Tire Impression Evidence

1 Purpose

This document provides examples of the scientifically-supported conclusions and opinions approved for reporting examination conclusions and offering expert opinion statements during footwear and tire impression testimony by Forensic Examiners within QDU. It is noted that these examples are not intended to be all inclusive and may be dependent upon the precedent set by the judge or locality in which a testimony is provided. Further, these examples are not intended to serve as precedent for other forensic laboratories and do not imply that statements by other forensic laboratories are incorrect, indefensible, or erroneous.

2 Scope

This document applies to Examiners in the QDU who prepare a *FBI Laboratory Report* (7-1, 7-1 LIMS) and/or provide expert witness testimony regarding the forensic examination of footwear/tire impression evidence. This policy is effective on the issue date of this document and is not retroactive to previously issued reports or testimony. This document provides the acceptable range of opinions expressed in both laboratory reports and during expert witness testimony while acknowledging that this document cannot address every variable in every examination.

3 Responsibilities

3.1 The Examiner will ensure that the *Laboratory Report* complies with the statements set forth in this document.

3.2 The Examiner will ensure that his/her expert witness testimony complies with the statements set forth in this document.

3.3 The Technical Reviewer will ensure that the *Laboratory Report* complies with the statements set forth in this document.

3.4 The Technical Reviewer will evaluate expert witness testimony to determine if such testimony complies with the statements set forth in this document.

4 Statements Approved for Use in Laboratory Reports and Expert Witness Testimony Regarding Forensic Examination of Footwear and Tire Impression Evidence

The following is the range of opinions approved for use by the Examiner in both laboratory reports and when providing expert witness testimony.

4.1 Identification

The Examiner may state that it is his/her opinion that the shoe/tire is the source of the impression because there is sufficient quality and quantity of corresponding features such that the Examiner would not expect to find that same combination of features repeated in another source. This is the highest degree of association between a questioned impression and a known source. This opinion requires that the questioned impression and the known source correspond in class characteristics and also share one or more randomly acquired characteristics. This opinion acknowledges that an identification to the exclusion of all others can never be empirically proven.

4.2 Probably Made

The Examiner may state that it is his/her opinion that the shoe/tire probably made the impression and it is unlikely that another shoe/tire is the source of the impression; however, there are limitations which prevent effecting an identification. This opinion indicates a high degree of association between the questioned impression and the known source, which is based on the correspondence of class characteristics in combination with specific wear and/or randomly acquired characteristics.

4.3 Could Have Made

The Examiner may state that it is his/her opinion that the shoe/tire is a possible source of the impression, but other shoes/tires with the same class characteristics are also included in the population of possible sources. This opinion indicates an association of class characteristics (i.e., outsole design and physical size for shoes, tread design and tread dimension for tires) between the questioned impression and the known source. Correspondence of general wear may also be present.

4.4 Could Not Be Determined

The Examiner may state that it is his/her opinion that it could not be determined if the known shoe/tire is the source of the impression. This opinion indicates that similarities and/or differences in class characteristics were noted between the questioned impression and the known source, but there are significant limiting factors within the evidence that do not allow for a specific association or non-association.

4.5 Indications Did Not Make

The Examiner may state that it is his/her opinion that the evidence indicates that the shoe/tire is not the source of the impression, but there are limitations which prevent eliminating the shoe/tire. This opinion indicates a degree of non-association between the questioned impression and the known source, which is based on observed dissimilarities.

4.6 Elimination

The Examiner may state that the shoe/tire is not the source of the impression. This opinion is the highest degree of non-association between a questioned impression and a known source. This opinion requires an observable difference in class and/or randomly acquired characteristics between the questioned impression and the known source.

4.7 Unsuitable

The Examiner may state that it is his/her opinion that the submitted evidence is unsuitable to conduct footwear/tire examinations. This opinion indicates one of the following: there are significant limitations which prevent the examiner from conducting a meaningful comparison between the questioned impression and the known source; or no discernible footwear/tire impressions were observed on the questioned item which prevents the examiner from conducting any comparisons.

5 Statements Not Approved for Use in Laboratory Reports and Expert Witness Testimony Regarding Forensic Examination of Footwear and Tire Impression Evidence

The following are not approved for use by the examiner; however, it is acknowledged that there may be circumstances outside the control of the examiner, such as in courts of law, that require the examiner to deviate from the statements set forth below.

5.1 Exclusion of All of Others

The Examiner may not state that a shoe/tire is the source of a questioned impression to the exclusion of all other shoes/tires because all other shoes/tires have not been examined. Examining all of the shoes/tires in the world is a practical impossibility.

5.2 Error Rate

The Examiner may not state a numerical value or percentage regarding the error rate associated with either the methodology used to conduct the examinations or the Examiner who conducted the analyses.

5.3 Statistical Weight

The Examiner may not state a numerical value or probability associated with his/her opinion. Accurate and reliable data and/or statistical models do not currently exist for making quantitative determinations regarding the forensic examination of footwear/tire impression evidence.

6 Laboratory Report Reviews

The *Laboratory Report* will be reviewed according to the *QDU Case Records and Review* to ensure compliance with the statements set forth in this document.

7 Testimony Reviews

Expert witness testimony will be reviewed according to the *FBI Laboratory Practices for Court Testimony Monitoring* to ensure compliance with the statements set forth in this document.

8 References

ASCLD/LAB-International Supplemental Requirement for the Accreditation of Forensic Science Testing and Calibration Laboratories, American Society of Crime Laboratory Directors/Laboratory Accreditation Board, Garner, NC, 2011

FBI Laboratory Quality Assurance Manual

FBI Laboratory Operations Manual

QDU Quality Assurance Manual

Rev. #	Issue Date:	History:
0	01/14/15	New document.
1	03/01/18	Deleted FBI Laboratory Report of Examination. Added FBI Laboratory Report/Laboratory Report to Sections 2, 3.1, 3.3, and 6. Corrected QDU QAM(s) for Section 6. Grammatical correction at Section 5.

Approval

Redacted - Signatures on File

Questioned Documents
Unit Chief

Date: 02/28/2018

Footwear/Tire Tread
Technical Leader

Date: 02/28/2018

QA Approval

Quality Manager

Date: 02/28/2018

Questioned Documents Unit (QDU) Case Records and Review for Cases in Forensic Advantage (FA)

1 Scope

These procedures apply to Questioned Documents Unit (QDU) personnel who generate case records and/or conduct technical and administrative reviews in Forensic Advantage (FA) and supplements the *FBI Laboratory Practices for Assigning Cases and Conducting Examinations* and the *FBI Laboratory Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records in Forensic Advantage (FA)*.

2 Case-Related Records

2.1 Administrative Records

2.1.1 Facsimiles, letters, substantive emails, and other correspondence.

2.1.2 Case Record Report.

2.1.3 Case Record Communication Log, if applicable.

2.1.4 Photograph(s)/digital images or equivalent prepared and retained for record purposes. The number of compact disks containing digital images of record copies will be accounted for on the *Laboratory Division Supporting Documentation Envelope (7-251)* which is in the FBI Laboratory file.

2.1.5 If an examiner serves as the person managing the case, he/she will retain the Case Report, Chain-of-Custody Log, Examination Plan (7-262), Case Object Repository, and Case Communication Log within FA.

2.1.6 Copies of Evidence Analyst (EA) records, if retained in hard copy format.

2.2 Examination Records

2.2.1 All case-related work notes/records which support the examiner's conclusion(s) to include:

- Printouts or images from Video Spectral Comparator (VSC), or comparable equipment
- Copies or images of positive indented writing lifts
- Copies of reference materials/standards
- Drawings/Simulations/Images depicting observed characteristics
- Examination photographs
- Examination overlays
- Manufacturer's information/specifications
- Electronic copies of test impressions

- Digital photographs of evidence

2.2.2 Case Record Object Repository, where applicable.

2.3 Administrative and examination records for FA cases will be retained in accordance with procedures in the *FBI Laboratory Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records in Forensic Advantage (FA)*.

2.3.1 Certain instances may warrant the physical retention of documents in the 7-251 only. Such instances include classified emails, letters, or other correspondence. In such instances, reference will be made in the Case Communication Log to refer to the 7-251.

2.3.2 All hard copies of examination records will be numbered to account for all pages generated in the QDU when processing the requested examinations. The numbering sequence used must account for each page, followed by the total number of pages, using the “Page ___ of ___” or “___ / ___” format.

2.3.3 If hard copies of examination records exist, the total pages of examination records generated will be noted on the front of the 7-251. If the examination records only exist electronically, they will be retained in FA and/or Sentinel.

2.3.4 If hard copies of administrative records are retained, an itemized list of these records (including the number of pages of each) will be accounted for on the front of the 7-251.

2.4 All the above administrative and examination records will be maintained in the case file, which consists of physical records (if retained) in the 7-251 and electronic records retained in FA and/or Sentinel.

3 Case Review

Questioned document and footwear and tire examinations conducted in the FBI Laboratory and in the field undergo the same review process. All comparisons and database associations are verified and all cases are technically reviewed by another qualified examiner to ensure accuracy and adherence to established practices and procedures. In addition, the unit chief will ensure all cases are administratively reviewed for accuracy and adherence to established practices and procedures.

3.1 The *QDU-12 LIMS Case Review Evaluation Sheet* (Appendix A) and the *QDU – 15 Abbreviations* (Appendix B) will be used as a guide when conducting all administrative and technical reviews. Technical reviews, and administrative reviews will be conducted on all forensic cases containing “Results of Examinations”. In addition, all “Results of Examinations” containing comparison results, printing process results, alteration/obliteration results, interpretation of indented writing, database associations, and any other results deemed necessary by the technical reviewer will be verified. Laboratory reports containing “Remarks” only with no results section will only be administratively reviewed.

3.2 Upon completing a case that contains examination results, the case examiner will submit the case records and report to a technical reviewer. It is the responsibility of the case examiner to ensure that the technical reviewer has not completed any work on the case. Upon receiving the case records and report, the reviewing examiner will complete a technical review and ensure that database associations and other appropriate results, including comparison results, are verified. Other results may also be verified at the discretion of the technical reviewer.

3.2.1 If corrections are needed, they will be recorded, addressed, and the case will then be resubmitted for review.

3.2.2 If a technical disagreement arises, the *FBI Laboratory Practices for Resolution of Scientific or Technical Disagreement* will be followed.

3.2.3 Upon completion of the technical review, the reviewer will record his/her agreement with the examination process in FA. This indicates the examiners and reviewers are in agreement.

3.3 Once the technical review and verifications are recorded in FA, or if no technical review is required (e.g., Remarks only), the case examiner will submit the case records and report for administrative review. All cases will be administratively reviewed.

3.3.1 If corrections are needed, they will be recorded and addressed, and the case will then be resubmitted for review.

3.3.2 Upon completion of the administrative review, the reviewer will record his/her approval of the case records in FA, indicating the administrative review has been performed and that the report is administratively accurate.

3.4 If the case meets the criteria for a blind verification, it will be assigned a blind verifier by the Technical Leader/Blind Verification Coordinator (Qualified Examiner designated to serve in this role if Technical Leader is unavailable). The blind verification will be conducted after the completion of the technical review and verifications and prior to the administrative review. Refer to the *QDU Blind Verification Procedures* for guidance.

3.5 Once the review processes are completed, approval from both the technical and administrative reviewers has been obtained in FA, and if applicable, a blind verification has been conducted, the report will be uploaded to Sentinel, if appropriate, and issued.

4 Dissemination of Expeditious Results

There are instances when the results of an examination(s) need to be expeditiously relayed to the contributor. Prior to a report being issued to the contributor and a technical review being conducted, an examiner may expeditiously disseminate the results or partial results of an examination(s) that is technical in nature only after a verification of those results has been conducted by a verifier. This review of the expedited results will be recorded within FA. The examiner will clearly state to the contributor which examinations were conducted, which items of evidence were examined, the results of the examinations, and that the results are subject to

change upon the completion of the final review conducted upon the completion of the casework and issuance of the Laboratory Report. Information not technical in nature may be reported prior to any review. The dissemination of expedited results or other information will be recorded on the *Case Communication Log* by the examiner in accordance with the FBI Laboratory Operations Manual *Preparing Laboratory Reports and Retaining Records in FA*. Technical review and an administrative review will be conducted and recorded in accordance with this procedure prior to the report being issued.

4.1 The following information is considered to be technical in nature and will not be provided to the contributor prior to conducting a verification:

- Whether an alteration or tampering of an item is detected
- Interpretation of indented writing
- Results of a positive database search
- Printing process(es) used to produce an item
- Whether text is located on an office equipment ribbon
- Authenticity of an item based on reference material
- Dating verification of an item based on reference material
- Any interpretive results

4.2 The following information may be provided to the contributor prior to conducting a technical review and verification:

- Request for additional known items
- Requests for additional evidence (e.g., digital images of impressions taken prior to casting/lifting).
- Inquiry concerning the known writing (e.g., is the writing dictated or undictated, how was the writing obtained)
- Inquiry of whether the original of a non-original item is available or can be obtained
- Inquiry of whether a better copy of a non-original item is available or can be obtained
- The suitability of an item for comparison (e.g., severely distorted writing, indistinct footwear impression)
- The lack of sufficient comparability of items for comparison (e.g., handwritten entries to be compared to hand printed entries)
- Suggestion of additional examinations that may be probative
- Notification that a requested examination cannot or will not be conducted
- Request for consent to submit an item to a facilitating laboratory
- **Redacted**

5 References

FBI Laboratory Operations Manual

FBI Laboratory Quality Assurance Manual

QDU Quality Assurance Manual

QDU Standard Operating Procedures Manual

Rev. #	Issue Date	History
3	09/26/19	<p>1 Scope deleted “practices” added “procedures” Section 2.1.1 deleted “will be uploaded to the case communication log. Section 2.1.4 added “/digital images.” Section 2.1.6 deleted “Evidence Management Personnel documents” and added “Analyst (EA)” and “records.” Section 2.2.1 first bullet, added “or images.” Section 2.2.1 last two bullets added, “Electronic copies of test impressions” and “Digital photographs of evidence.” Section 2.3.4 deleted “documents” added “records.” Section 3 Case Review “and footwear and tire” and “in.” Section 3.1 deleted “Confirmations” and lower case “t” in “technical” and added capital “T” in “Technical”, “In addition, all “Results of Examinations” containing comparison results, printing process results, alteration/obliteration results, alteration/obliteration results, interpretation of indented writing, database search results, and any other results deemed necessary by the technical reviewer will be verified.” Section 3.3 deleted “confirmation” and added “verifications.” Section 3.4 added “/BV Coordinator (Qualified Examiner designated to serve in this role if Technical Leader is unavailable)”. Section 4 deleted “complete” “review” “technical “reviewer” “technical reviewer” “Further”, lower “t” in “technical” and added “verification” “verifier” “verifier” “any” and capital “T” in “Technical.” Section 4.1 deleted “technical review” and added “verification.” Section 4.2 added “and verification.” New second bullet added, “Requests for additional evidence (e.g., digital images of impressions taken prior to casting/lifting).</p>
4	02/03/20	<p>In section 3.1 changed “search results” to “associations”. Added “It is the responsibility of the case examiner to ensure that the technical reviewer has not completed any work on the case. An alternate reviewer should be selected if the primary reviewer has completed any work.” to section 3.2. Also changed “...database associations and all other comparison results are verified.” of section 3.2 to “...database associations and other appropriate results, including comparison results, are verified.” Added “Expeditious” to the title of section 4. Within section 4 changed “...on the <i>Case Record Communication Log</i> by the verifier.” to “...within FA.” Also within section 4 added “..., and that the results are subject to change upon the completion of the final review conducted upon the completion of the casework and issuance of the Laboratory Report.” and “...in accordance with the FBI Laboratory Operations Manual <i>Preparing Laboratory Reports and Retaining Records in FA.</i>” Added “The blind verification will be conducted after the completion of the technical review and verifications and prior to the administrative review.” to section 3.4. Also updated Appendix A.</p>

Approval

Redacted - Signatures on File

Questioned Documents -
Unit Chief

Date: 01/31/2020

Questioned Documents -
Technical Leader

Date: 01/31/2020

Footwear/Tire Tread -
Technical Leader

Date: 01/31/2020

QA Approval

Quality Manager -

Date: 01/31/2020

Appendix A: *QDU-12 LIMS Case Review Evaluation Sheet*

Redacted - Form on File

Appendix B: *QDU – 15 Abbreviations*

Redacted - Form on File

Questioned Documents Unit (QDU) Evidence Handling Procedures and Examinations Using Forensic Advantage (FA)

1 Scope

These procedures apply to all personnel in the Questioned Documents Unit (QDU) who receive, transfer, store, return and/or examine evidence using Forensic Advantage (FA).

Redacted

3 Transfers of Evidence

3.1 All transfers of evidence will be conducted in accordance with the *FBI Laboratory Practices for Transferring and Storing Evidence* and the *FBI Laboratory Practices for Handling Drug and Valuable Evidence*.

3.2 In instances when multiple QDU examiners/analysts are assisting/conducting examinations on the same evidence, but evidence is not being transferred, a separate list of those individuals will be maintained by the assigned examiner. This list will be maintained in the case file.

3.3 All evidence transferred within the FBI Laboratory and out of the QDU will be properly sealed unless exigent circumstances exist (e.g., immediate cases). In these instances transfers will be hand-to-hand and a proper seal is not required, within the FBI Laboratory. All transfers outside of the FBI Laboratory, the evidence will be under proper seal.

4 Inventory of Evidence

4.1 For evidence received using FA, the *FBI Laboratory Practices for Assigning Cases and Conducting Examinations* and the *FBI Laboratory Practices for Processing a Submission and Evidence Breakdown* will be followed.

4.2 Evidence item(s) will be labeled with the item identifier, laboratory number, and the examiner's initials whenever the item(s) lends itself to marking.

4.3 The following types of evidence do not lend themselves to some or all of the required markings:

- **Redacted** postage stamps, or other small items in which space is limited
- Items requiring other forensic examinations, such as latent print examinations
- Items requiring indented writing examinations
- Ransom notes or other items that may be returned to the subject
- Items covered in biological matter
- Charred or brittle items
- Legal documents, such as passports, identification cards, and certificates
- Historical items
- Valuable items, such as artwork
- Other items in which markings would be considered destructive

4.4 When it is not possible to place some or all of the required markings on the evidence, the primary container/packaging will contain the laboratory number and other required identifiers.

4.4.1 Anyone writing on outer packaging containing evidence should exercise caution and ensure no extraneous indentations are placed onto the evidence.

5 General Evidence Handling Considerations

5.1 All examiners and analysts will take appropriate measures to ensure the integrity of the evidence for future examinations in other forensic disciplines and safeguard the evidence against contamination, loss, or deleterious changes.

5.2 If DNA or trace evidence are possible future examinations, the examiner should refer to the *QDU Procedures for the Initial Assessment of Documentary Evidence*.

5.2.1 For the majority of cases involving DNA exams, the evidence will be transferred to the DNA unit before the QDU analyst takes possession. In the few instances where this does not occur, great care must be taken as to not contaminate the evidence with the analyst's DNA.

5.2.1.1 A clean disposable surface (e.g., brown paper, kimwipe or paper equivalent) must be placed down on any surface where the evidence will be handled, as appropriate.

5.2.1.2 The analyst will wear gloves, a mask, and a lab coat to prevent his/her DNA from being transferred to the evidence, if the evidence is examined in the QDU prior to DNA exams.

5.2.1.3 The analyst will clean the scanner with alcohol wipes before use in order to prevent contamination, if the evidence is scanned prior to DNA exams. The scanner will be cleaned after use, as needed.

5.2.2 If an analyst observes trace evidence, (e.g., hair, fiber) care must be taken to preserve this evidence and the examiner should be immediately notified.

5.3 For evidence that will be examined by the latent print discipline, nitrile gloves must be worn at all times. **Redacted**

5.3.1 If the evidence is composed of a hard surface, (e.g., plastic, metal) two sets of gloves should be worn: cotton gloves with nitrile gloves over them. This is done to prevent the latent prints possibly present on the surface from being removed.

5.3.2 If an analyst handles latent evidence without gloves, he/she must immediately inform the examiner.

5.4 Analysts should consult with the pool examiner or assigned examiner for any pertinent information or special instructions.

5.5 Care must be taken as to not tear the evidence or adhere it to any surface, possibly causing damage.

5.5.1 If an adhesive material is on the evidence, a barrier sheet may be used to prevent sticking. The analyst will consult with the pool examiner or assigned examiner before proceeding with this method.

5.5.2 If a piece of the evidence contains an adhesive material that inhibits the analyst's ability to scan or conduct indented writing examinations, he/she must consult with the pool examiner or assigned examiner before using a material such as Undu[®] to remove the adhesive.

5.5.3 If evidence needs to be altered, (excluding splitting the sides of an envelope or removing spiral rings from notebooks for ESDA purposes) the pool examiner or assigned examiner must contact the contributor to obtain consent for the alteration. The contributor's consent or disapproval will be recorded on the Case Communication Log in FA. If, and after, the proper permission is received, the examiner will be the one to alter the evidence, recording the alteration in his/her notes or on the Case Communication Log in FA.

5.5.3.1 An analyst must never cut or tear a piece of evidence on his/her own. This task must be completed by the pool examiner or assigned examiner.

5.6 Especially fragile evidence such as charred or water-soaked documents must be handled with great care. In most situations, the pool examiner or assigned examiner will have attempted to protect and preserve the charred or soaked evidence before it is transferred to an analyst.

5.6.1 The analyst should follow any special instructions from the pool examiner or assigned

examiner regarding the protection of the evidence during the scanning and/or Electrostatic Detection Apparatus (ESDA) process.

5.7 In instances where evidence in an analyst's possession has gotten wet, the analyst must immediately inform the pool examiner or assigned examiner and take steps to dry the evidence thoroughly.

5.7.1 The evidence should not be placed into any plastic document holder or bag, as this may damage the document further and promote mold growth. The evidence should be placed in a paper envelope after it has dried.

5.8 Machine printed material should not be placed in plastic document holders or bags due to the tendency for the medium to transfer to the plastic if pressure or heat is applied. Printed documents should be placed inside paper envelopes for proper storage and protection. If documents are observed to be stored improperly, the analyst should immediately consult the pool examiner or assigned examiner.

5.9 All biohazard evidence will be examined in the biohazard room using appropriate personal protective equipment (PPE).

5.9.1 All surfaces which come in contact with biohazard evidence (where feasible) will be properly cleaned after use using a 10 percent bleach solution (prepared that day or manufacturers).

5.10 Evidence containing known chemicals that may be harmful will be worked in an area equipped to handle such substances (e.g., chemical fume hood), and a trained examiner will wear appropriate PPE.

6 Examination of Evidence

6.1 For cases received using FA, the *FBI Laboratory Practices for Assigning Cases and Conducting Examinations* will be followed.

6.2 All assigned examiners in the QDU will assess submitted evidence and conduct all examinations deemed necessary, in accordance with the *QDU Standard Operating Procedures Manual*. In addition, each assigned examiner will take appropriate measures to ensure the integrity of the evidence for future examinations in other forensic disciplines and safeguard against contamination or loss.

6.2.1 At a minimum, a visual inspection of the submitted items is required. Based upon contributor request(s) and a preliminary visual inspection, the assigned examiner will determine and document in the examination records the appropriate examinations to be conducted on the submitted items. For comparison of an unknown to a known, the procedure requires the evaluation of the unknown item(s) to identify characteristics suitable for comparisons.

6.2.1.1 Magnification, proper lighting, or other equipment may be used as needed during the initial visual inspection.

6.3 An association within the QDU will be defined as follows - An observation that two or more elements have significant aspects in common indicating they may be of a related/common origin at some point in time.

6.4 Refer to the *QDU Case Records and Review for Cases in Forensic Advantage (FA)* for procedures on conducting technical and administrative reviews in FA.

6.5 If an examiner/analyst elects to use digital enhancement software for casework purposes, the examiner/analyst will refer to the user's guide and/or other pertinent information for the particular software being used. In addition, the examiner/analyst will keep a record of the particular software being used and the steps performed to the image during the enhancement process. This record may be written, printed, or kept in digital format with the enhanced image. The record will be maintained in the *Laboratory Division Supporting Documentation Envelope* (7-251, digital 1A) or provided to the contributor as secondary evidence

6.5.1 Requirements for Photoshop processing are as follows:

- The original image will remain unaltered.
- A working copy of the original image will be created and used for digital processing to preserve the integrity of the original image.
- Digital imaging processing must not misrepresent nor compromise the integrity of the information contained in the original image.

6.5.2 Questioned document cases are dynamic in nature and may require the use of all available Photoshop processing/tools. However, the primary processing/tools used in casework typically include, but are not limited to:

- Image enhancements (contrast, brightness, etc.)
- Filters
- Levels
- Color channels
- Eraser
- Dodge/Burn
- File format conversion (e.g., TIFF to JPEG)

6.6 Electronic images/information submitted via e-mail, facsimile, or Sentinel for database searches and other QDU examinations will be handled in accordance with the *FBI Laboratory Practices for Processing a Single Unit Submission (SUS)*, *FBI Laboratory Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records*, *FBI Laboratory Practices for Transferring and Storing Evidence*, *FBI Laboratory Practices for Processing a Submission and Evidence Breakdown* and the *FBI Laboratory Practices for Assigning Cases and Conducting Examinations*.

6.7 All cases being processed by a pool examiner, assigned examiner, and/or assigned technician/analyst and those being technically reviewed are considered under active examination. In addition, analysis or comparison of case evidence at least once every sixty days will constitute active examination. Evidence that is not under active examination will be properly sealed and stored.

7 Secondary Evidence

7.1 A *Secondary Evidence Inventory* log will be completed in FA as a batch report and uploaded into the Case Object Repository in FA when electrostatic lifts and/or photographs/electronic images of indentations as well as lifts, casts, and test impressions of footwear/tire and other pattern impression evidence (new evidence created in Laboratory) are returned to the contributor. In addition, exemplars (new evidence created in Laboratory) taken for future comparison purposes will be treated as secondary evidence. DVD(s)/CD(s) containing uncompressed image files can be treated as secondary evidence or included in the *Laboratory Division Supporting Documentation Envelope (7-251)* or digital 1A. Secondary evidence will be sealed and labeled in accordance with the evidence policies of the FBI Laboratory.

7.2 Each type of secondary evidence will be added as a separate item in FA. The secondary evidence item description will include discipline/category of testing, with number and type.

Item 5	Questioned Documents Secondary Evidence (2 ESDA lifts)
Item 6	Questioned Documents Secondary Evidence (3 photographs)
Item 7	Footwear Secondary Evidence (Twenty footwear test impressions)
Item 8	Tires Secondary Evidence (Ten tire tread impressions)

Figure 1: Example of naming different types of QDU secondary evidence.

8 Safety

Standard precautions for the handling of chemical and biological materials should be followed. Examiners/analysts may refer to the *FBI Laboratory Safety Manual* for guidance. Chemical and biological materials that are hazardous or potentially hazardous will be maintained and examined in specifically designated areas within the QDU space.

9 References

FBI Laboratory Safety Manual

FBI Laboratory Operations Manual

FBI Laboratory Quality Assurance Manual

QDU Standard Operating Procedures Manual

QDU Quality Assurance Manual

Rev. #	Issue Date	History
2	03/01/18	<p>Added “and Examinations” to title. 1 Scope, deleted “and”, added, “and/or examine” 3.1 deleted “<i>Returning Evidence in Forensic Advantage (FA)</i>” and added, “<i>and Storing Evidence</i>” “<i>FBI Laboratory Practices for Handling Drug and Valuable Evidence.</i>” 3.3, added, “within the FBI Laboratory and”, “within the FBI Laboratory. All transfers outside of the FBI Laboratory, the evidence will be under proper seal.” 4.1, deleted “<i>in Forensic Advantage (FA)</i>” added, <i>Assigning Cases and Conducting Examinations and the FBI Laboratory Practices for</i>” 5.2.1.1, added “or paper equivalent” 5.3, deleted “cotton”, added “nitrile” 5.4 deleted “The examiner may elect to include this information on the <i>QDU – 1 LIMS Case Processing Center Request Sheet</i> (Appendix A). Any special instructions included on the <i>QDU -1 LIMS</i> form must also be verbally conveyed to the analyst. Deleted 5.4.1.1. 5.5.3, added “or on the Case Communication Log in FA.” 5.9.1 added apostrophe to “manufacturer”. 6.1, deleted “<i>in Forensic Advantage (FA)</i>” 6.2.1, deleted “in all active case.” 6.2.1.1 added “proper” 6.5, added “software” “particular software being used and the” “digital 1A” “or provided to the contributor as secondary evidence.” Added “6.5.1 Requirements for Photoshop processing are as follows: The original image will remain unaltered. A working copy of the original image will be created and used for digital processing to preserve the integrity of the original image. Digital imaging processing must not misrepresent nor compromise the integrity of the information contained in the original image. Added. 6.5.2 Questioned document cases are dynamic in nature and may require the use of all available Photoshop processing/tools. However, the primary processing/tools used in casework typically include, but are not limited to: Image enhancements (contrast, brightness etc.), Filters, Levels, Color channels, Eraser, Dodge/Burn, File format conversion (e.g., TIFF to JPEG). 6.6, deleted “<i>in Forensic Advantage (FA)</i>” “Processing a Submission and Evidence Breakdown in Forensic Advantage (FA)”, added <i>Processing a Single Unit Submission (SUS), FBI Laboratory Practices for Preparing, Reviewing, and Issuing Laboratory Reports and Retaining Records, FBI Laboratory Practices for Transferring and Storing Evidence, FBI Laboratory Practices for Processing a Submission and Evidence Breakdown, and the FBI Laboratory Practices for Assigning Cases and Conducting Examinations.</i>” 7.1 added “log” “as well as lifts, casts, and test impressions of footwear/tire and other pattern impression evidence (new evidence created in Laboratory)” “In addition, exemplars (new evidence created in Laboratory) taken for future comparison purposes will be treated as secondary evidence. DVD(s)/CD(s) containing uncompressed image files can be treated as secondary evidence or</p>

included in the *Laboratory Division Supporting Documentation Envelope (7-251)* or digital 1A. Secondary evidence will be sealed and labeled in accordance with the evidence policies of the FBI Laboratory.”, deleted “for investigative assistance and/or interpretation.” “The lifts and/or photographs/electronic images of indentations will be sealed and labeled in accordance with the evidence policies of the FBI Laboratory. Photographs/electronic images taken for copy shot or notation purposes only are not secondary evidence and will not be treated as such.”7.2 deleted “QDU Secondary Evidence”, “along” “the” “of secondary evidence”, added, “discipline/category of testing” Figure 1, deleted “QDU”, added “Questioned Documents”, added “Item 7 Footwear Secondary Evidence (Twenty footwear test impressions), Item 8 Tires Secondary Evidence (Ten tire tread impressions) Deleted Appendix A: QDU - 1 LIMS form.

3 09/26/19 Section 5.4 added “pool” “or assigned examiner.” Section 5.5.1 added “pool” “or assigned examiner” Section 5.5.2 added “pool” “or assigned examiner” Section 5.5.3 added “excluding” “or removing spiral rings from notebooks for ESDA purposes” “pool examiner or assigned examiner.” Section 5.3.3.1 added “This task must be completed by the pool examiner or assigned examiner.” Section 5.6 added “pool” “or assigned examiner” Section 5.6.1 added “pool” “or assigned examiner” Section 5.7 added “pool” “or assigned examiner.” Section 5.8 added “pool” “or assigned examiner.” Section 6.2 added “assigned” and “assigned.” Section 6.2.1 added “assigned” “For comparison of an unknown to a known, the procedure requires the evaluation of the unknown item(s) to identify characteristics suitable for comparisons.” Section 6.3 added “/common” “at some point in time.” Section 6.7 deleted “the QDU Case Processing Center (CPC)” and added “a pool examiner, assigned examiner, and/or assigned technician/analyst”

Redacted - Form on File

Approval

Questioned Documents
Unit Chief

Date: 09/24/2019

Questioned Documents
Technical Leader

Date: 09/24/2019

Footwear/Tire Tread
Technical Leader

Date: 09/24/2019

QA Approval

Quality Manager

Date: 09/24/2019