ASCLD/LAB CORRECTIONS TO REMEDIATION RESPONSE

NOVEMBER 2002 INSPECTION

SAN DIEGO SHERIFF'S DEPARTMENT REGIONAL CRIME LABORATORY

June 6, 2003



P.O. Box 427 Riderwood, Maryland 21139-0427 410-821-8523

May 6, 2003

Don Tapper Supervising Criminalist San Diego County Sheriff's Crime Laboratory 5255 Mt. Etna Drive San Diego, CA 92117

Dear Don:

Thank you for your letter dated April 22, 2003, forwarding the remediation report, and for forwarding a copy of the report to each member of the inspection team. The team has completed its review of the report and the following comments are provided on each of the criteria identified in the report:

1.1.2.5: The procedure for storage, security and disposition of case records that was added to the Crime Laboratory Manual satisfactorily addresses the finding. Implementation of the procedure will be reviewed during a re-visit.

Comment: No action is necessary at this time. Implementation of the new procedure will be reviewed during re-inspection.

1.1.2.7: The procedure for conducting and monitoring maintenance of the instruments and equipment that was added to the Latent Print Development Section's Policy and Procedures Manual addresses the finding. The only question is under 9.9.14.7.1, which states, "the operational fitness of each instrument is verified with each use." It is not clear after reviewing other portions of this Procedures Manual how that determination is being made.

Implementation of the procedure will be examined during a re-visit.

Comment: We believe that the manual covers the issue of operational fitness for the VMD. Language has been added to the manual to clarify this issue for the ALS. See explanations below.

1. VMD.

The determination of operational fitness for the VMD is indicated in Section 9.9.14.7.1 as follows:

- Step 6 reads, "Add positive control card(s)."
- Step 18 reads, "View the positive control card and immediately close the shutters when test card BEGINS to darken."
- Step 21 reads, "To vent the chamber, place the RUN/STOP/VENT switch to VENT. Unclamp the door latches and examine the positive control card and evidence."
- "Notes" section reads, "Each use of the VMD should be documented in the user's log located by the machine."
- "VMD Chamber Maintenance" section reads, "Confirm and document proper VMD operation during each use cycle: a) Record operational information in the VMD 'Use and Maintenance Log' and b) In the event instrument maintenance is required, refer to the 'Use and Maintenance Log' for contact information."

2. ALS.

The determination of operational fitness for the ALS is indicated in Section 9.9.14.7.1 and in the "Positive Control" section of the "Reagent/Process Quality Assurance Sample Preparation and Procedures" manual as follows:

- Instrumental Development of Impression Evidence/Alternate Light Source (ALS): "For ALS, see Reagent/Process Quality Assurance Sample Preparation and Procedures – 'Cyanoacrylate Ester Residues' in the Latent Print Development Section's Chemical Processing Manual. Any defective performance will be immediately reported to the Section Lead or Supervising Criminalist so appropriate corrective actions can be arranged."
- Chemical Processing Manual/Cyanoacrylate Ester Residues: "To validate the reagents, equipment operability and methods used to dye-stain cyanoacrylate ester developed impressions. To satisfy this requirement, test squares containing previously superglued impressions will be prepared and processed according to the method being evaluated."
- Cyanoacrylate Ester Residues/Steps for Evaluating Prepared Test Squares, Step 5: "Evaluate and record the test results in the User's/Maintenance Log for the ALS and in the examiner's case notes."

3. VMD and ALS.

Section 9.9.14.6.1 of the Latent Print Development Section Manual ("Quality Control/Quality Assurance") has been modified to read:

"Positive controls will be performed prior to any evidence processing as detailed in the Reagent/Process Quality Assurance Sample Preparation and Procedures located in the Latent Print Development Chemical Processing Manual. However, examiners utilizing the Vacuum Metal Deposition and Cyanoacrylate Fuming will perform the positive control at the same time as the evidence processing. See appropriate methods for further details."

1.3.3.1: The revisions to the three training programs identify scores that must be met, but do not identify the composition of the tests. For example, in controlled substances, how many qualifying samples and of what composition? In latent prints, how many comparisons? In latent print development, what will the practical competency test be composed of?

Comment: The Controlled Substances, ALPS, and Latent Print Development section manuals have been modified to clarify this issue as follows:

1. Controlled Substances.

Section 9.4.12 of the Controlled Substance Analysis Manual ("Training Outline/ Introduction/Paragraph 4") has been modified to read:

"The training program provided for training drug analysts by the San Diego Sheriff's Crime Laboratory includes formal lectures, assigned readings, observing actual case work, practice sample work, observation of courtroom testimony, moot court, analysis of gualifying samples, and a written final examination. The marijuana gualifying tests are comprised of a minimum of 10 samples with at least 50% containing marijuana. The controlled substances qualifying tests are comprised of a minimum of 20 samples of which at least 50% contain one or more controlled substances as defined by the California Health and Safety Code. The written examination for marijuana is comprised of at least 15 questions covering analytical and legal questions pertaining to marijuana as defined in the California Health and Safety Code. The written examination for controlled substances is comprised of at least 30 questions covering analytical and legal questions pertaining to controlled substances as defined in the California Health and Safety Code. The trainee must correctly identify all gualifying samples (an answer of "No Controlled Substances Detected" is correct if no substances regulated under the California Health and Safety Code are present in the sample) and score an 80% or higher on the written exam in order to begin performing casework."

2. ALPS.

WAITING FOR RESPONSE FROM JOHN MCDONNELL AND LINDA WRIGHT ON THIS ISSUE. LINDA MAY HAVE ALREADY TAKEN CARE OF IT (JOHN IS NOT SURE), BUT SHE IS ON VACATION FOR A COUPLE OF DAYS. IT WILL BE RESOLVED WHEN SHE RETURNS.

3. Latent Print Development.

Section 9.9.14.12.1 of the Latent Print Development Manual ("Training/Latent Print Development Training Program") has been modified to read:

"Practical competency test where the examiner will receive mock case evidence items consisting of not less than five (5) items which have been exposed to/contaminated with latent prints, including at least one item with no latent print residue. Items will consist of porous, non-porous, sticky-side substances, and combination surfaces. The items will be processed following the Latent Print Development Section Policy and Procedure Manual. Successful completion of this test will be based on the trainer's evaluation of the notes and results produced by the examiner."

The documented training program prepared for Forensic Evidence Technicians satisfactorily addresses the finding (please note that appendices F and Y have been inserted in the wrong places in the package).

Comment: No action is necessary. This finding has been resolved. (Reversal of

appendices F and Y in the remediation report is acknowledged.)

1.4.1.3: The new procedures for sealing evidence being sent to the contractor appear to satisfactorily address the finding. Implementation of the procedure will be reviewed during a revisit.

Comment: No action is necessary at this time. Implementation of the new procedure will be reviewed during re-inspection.

1.4.2.4: The manual revision revising the procedure for conducting the annual review of the quality system was not provided; therefore, it cannot be determined from reviewing the remediation package whether what was done meets the requirements of the Crime Laboratory Manual.

Comment (proposed fix): A copy of the section of the revised Quality Review System documenting that laboratory personnel can perform quality reviews is attached to this report. See Appendix 1.

WAITING FOR RESPONSE FROM KATHY ABOUT THIS ISSUE. NEED HER TO PROVIDE REVISED MANUAL LANGUAGE.

1.4.2.7: The revisions to the Questioned Documents Procedure Manual resolve that portion of the finding.

Comment: No action is necessary. This finding has been resolved.

1.4.2.7: The addition to the ALPS Section Manual, while appearing to be technically sound, is apparently a copy of a SWGFAST document and includes the wording "Draft for Comment." Whereas you may wish to adopt procedures recommended by SWGFAST, those procedures should be clearly established as your laboratory procedures. Use of a document that is identified as "Draft for Comment" does not appear advisable.

Comment: The "SWGFAST Draft for Comment" document has been rewritten and is now an SDSO Crime Laboratory document. Also, no references to "draft" appear in the document. See Appendix 2.

Regarding the last paragraph in the remediation, the wording of Latent Print Development Section's Policy and Procedure Manual, 9.9.14.5.2, fourth paragraph, the requirement of single use reagents ("containers need only be identified as to contents and initials....") raises questions about non-compliance with criterion 1.4.2.8 because there is no indication of the use and documentation of appropriate controls; please explain further.

Comment: Section 9.9.14.5.2 of the Latent Print Development Section Manual ("Reagents – Policies, Procedures, Protocols") has been modified to read:

"Each time a new reagent with extended use life is prepared, the reagent will be labeled with the identity of the reagent, the date of preparation and expiration, and the initials of the individual who prepared and validated the reagent. The individual who prepares and tests extended use reagents will complete the Reagent Validation Log. In the case where reagents are prepared for single use situations, the individual who prepared the reagent will complete the Reagent Validation Log. Any excess reagent will be disposed of according to the laboratory safety policy."

1.4.2.8: The following comments and suggestions are provided regarding the information that is provided as Appendix L of the remediation documentation:

1.4.2.8: (1) The page identified as 90, "Sebaceous Materials" appears to be a procedure for a test print on adhesive surfaces, not a procedure for sebaceous material.

1.4.2.8: (2) The page identified as 91, "Bloody Components" does not contain any requirements for documenting the preparation of the Test Cards, nor a description of how the Test Cards are to be documented in the case record.

1.4.2.8: (3) The page identified as 95, "Apocrine Materials" does not contain a requirement for documenting the source and verification of the alanine and beef bouillon. The procedure refers to "previously validated materials" but does not specify how they are to be validated. Also, the apocrine glands do not secrete amino acids; they are secreted by the eccrine glands.

1.4.2.8: (4) The pages identified as 98 and 99 do contain requirements to record test results, but no guidelines are identified as to how this is to be accomplished.

WAITING FOR RESPONSE FROM LINDA WRIGHT CONCERNING THESE FOUR ISSUES. I BELIEVE SHE HAS CORRECTED THEM, BUT I NEED TO CONFIRM AND ALSO GET THE DOCUMENTATION.

1.4.2.10: The effectiveness of the action taken will be examined during a re-visit.

Comment: No action is necessary at this time. Effectiveness of the plan will be reviewed during re-inspection.

1.4.2.12: The action taken satisfactorily addresses the finding.

Comment: No action is necessary. This finding has been resolved.

1.4.2.13: The actions taken appear to satisfactorily address the findings. This will be further examined during a re-visit.

Comment: No action is necessary at this time. Effectiveness of the plan will be reviewed during re-inspection.

1.4.2.14: (1) The effectiveness of the corrective action regarding the condition of package sealing recorded in Questioned Documents case notes will be examined during a re-visit.

Comment: No action is necessary at this time. Effectiveness of the plan will be reviewed during re-inspection.

1.4.2.14: (2) The effectiveness of the corrective action regarding conclusions reported in hair analysis cases will be examined during a re-visit.

Comment: No action is necessary at this time. Effectiveness of the plan will be reviewed during re-inspection.

1.4.2.14: (3) The actions taken should prevent the problem from reoccurring in the future. This will be examined during a re-visit. Was any action taken with the case that was reviewed during the original inspection to revise the notes and/or conclusions? Also, it is noted that the Glossary that is being used is identified as "SWGFAST Glossary of Identification". It is suggested that any glossary that is used be identified as a SDCSCL glossary.

Comment: WAITING FOR AN ANSWER FROM KATHY AS TO WHETHER AN AMENDED CASE RECORD IS NEEDED FOR THE FIRST PART OF THE FINDING. "Glossary" issue: The "SWGFAST Glossary of Identification" document has been rewritten and is now an SDSO Crime Laboratory document. See Appendix 3.

1.4.2.14: (4) Although the past procedure of reporting forensic alcohol results is not being followed, the remediation report did not give a clear example of the current reporting format. It cannot be determined from the information that has been provided whether this finding has been fully resolved.

Comment: An example of the current reporting format is attached to this document. See Appendix 4.

1.4.2.14: (5) The effectiveness of the action taken to resolve the problem of corrections to case notes being made by the Forensic Alcohol Section by other than initialed single-line strikeouts will be examined during a re-visit.

Comment: No action is necessary at this time. Effectiveness of the plan will be reviewed during re-inspection.

1.4.2.16: The action taken resolves the problem that was observed during the original inspection with a case being technically reviewed by a trainee.

Comment: No action is necessary. This finding has been resolved.

1.4.2.19: The remediation reported for this finding is a procedure that is not identified in the quality manual version that was provided prior to the original inspection and a new version was not included in the remediation package. Has the manual been revised?

WAITING FOR RESPONSE FROM KATHY HOW TO BEST RESOLVE THIS ISSUE.

1.4.3.4: Although the remediation that is stated indicates that subdiscipline testing will be performed in accordance with Section 7.13.3 of the Crime Laboratory Manual, that section only discusses proficiency testing in disciplines and does not address subdisciplines. This Important (not an Essential) criterion still appears to be No.

Comment: The laboratory will comply with proficiency testing policy as outlined in Section 7.13.3 of the Crime Laboratory Manual, which states,

"Each examiner must complete a proficiency test in each DISCIPLINE that the examiner performs testing in. The examiner will use proficiency tests from an approved external test provider if such tests are available. If no external proficiency test is available, the examiner must complete a proficiency test obtained from another source (for example, a test prepared by the laboratory's Quality Assurance Manager).

We will ATTEMPT to comply with ASCLD Criterion 1.4.3.4, which states that each examiner should be proficiency tested annually in each SUBDISCIPLINE in which casework is performed. However, we may not be able to comply with this standard in each case, so we will accept a "No" score for this Important (not Essential) criterion.

1.4.3.5: This Important criterion will remain No.

Comment: The laboratory will accept a "No" score for this Important (not Essential) criterion.

2.9.4: The proficiency test requirements established for Forensic Evidence Technicians who perform presumptive blood tests and collection of blood, as described under Appendix F, appear to resolve this finding; however, actual proficiency test records for these technical support personnel will have to be reviewed in order to fully resolve the finding.

Comment: No action is necessary at this time. Proficiency test records will be reviewed during the re-inspection.

Thank you for preparing such an organized remediation package that helped to facilitate the review. Please provide additional information as appropriate.

Sincerely,

Richard S. Frank

cc: Ralph Keaton, ASCLD/LAB Executive Director Frank Fitzpatrick, ASCLD/LAB Board Coordinator Each inspector Kathy Wagner, SDCSCL Quality Manager

APPENDIX 1

ASCLD/LAB STANDARDS AND CRITERIA 1.4.2.4 (E)

Proposed: A copy of the section of the revised Quality Review System documenting that laboratory personnel can perform quality reviews will go here as Appendix 1.

APPENDIX 2

ASCLD/LAB STANDARDS AND CRITERIA 1.4.2.7 (E)

This is the document, but it needs a few corrections, and reformatting:

9.9.6.0 San Diego Sheriff's Crime Lab Friction Ridge Examination Methodology for Latent Print Examiners

<u>Goal</u>

Describe a method for friction ridge examinations and the bases for conclusion.

Objectives

- Establish principles by which examinations are conducted.
- Establish a method for friction ridge examination.
- Establish the conclusions that may result from an examination.
- 1. Fundamental principles for friction ridge examinations by a latent print examiner, trained to competency.
 - 1.1 The morphology of friction ridge skin is unique.
 - 1.2 The arrangement of friction ridges is permanent barring trauma to the basal layer of the epidermis.
 - 1.3 An impression of the unique details of friction ridge skin can be transferred during contact with a surface.
 - 1.4 An impression that contains sufficient quality and quantity of friction ridge detail can be individualized to, or excluded from, a source.
 - 1.5 Sufficiency is the examiner's determination that adequate unique details of the friction skin source area are revealed in the impression.
- 2. Levels and uses of friction ridge skin detail for examinations.
 - 2.1 Level one detail.
 - 2.1.1 Overall ridge flow.
 - 2.1.2 General morphology (e.g., presence of incipient ridges, overall size).
 - 2.1.3 Can be used for pattern interpretation.
 - 2.1.4 Can be used to determine anatomical source (i.e., finger, palm, foot, toe) and orientation.
 - 2.1.5 Cannot be used alone to individualize.
 - 2.1.6 Can be used to exclude under certain circumstances.
 - 2.2 Level two detail.
 - 2.2.1 Individual ridge path.
 - 2.2.1.1 Presence of ridge path deviation (e.g., ridge ending, bifurcation and dot).

- 2.2.1.2 Absence of ridge path deviation (e.g., continuous ridge).
- 2.2.1.3 Ridge path morphology (e.g., size and shape).
- 2.2.2 Used in conjunction with level one detail to individualize.
- 2.2.3 Used in conjunction with level one detail to exclude.
- 2.3 Level three detail.
 - 2.3.1 Structure of individual ridges.
 - 2.3.1.1 Shape of the ridge.
 - 2.3.1.2 Relative pore position.
 - 2.3.2 Other specific friction skin morphology (i.e., secondary creases, ridge breaks. etc.).
 - 2.3.3 Used in conjunction with level one and level two detail to individualize.
 - 2.3.4 Used in conjunction with level one and level two detail to exclude.
- 2.4 Other features associated with friction ridge skin (e.g., creases, scars, warts, paper cuts, blisters).
 - 2.4.1 May be permanent or temporary.
 - 2.4.2 May exist as level one, two, and three detail.
 - 2.4.3 May be used in conjunction with friction ridge detail to individualize or exclude.
- 3. Method of friction ridge examinations.

A recurring application of Analysis, Comparison, Evaluation and Verification (ACE-V) in each of the following:

3.1 Analysis.

Analysis is the assessment of a friction ridge impression to determine suitability for comparison. Factors considered include the following: 3.1.1 Quality (clarity) and Quantity of detail.

3.1.1.1 Level one detail.

3.1.1.2 Level two detail.

- 3.1.1.3 Level three detail.
- 3.1.2 Anatomical source (finger, palm, foot, toe).

3.1.3 Factors influencing quality include

3.1.3.1 Residue/matrix.

3.1.3.2 Deposition.

3.1.3.3 Surface/substrate.

3.1.3.4 Environment.

3.1.3.5 Development medium.

3.1.3.6 Preservation method.

3.1.3.7 Condition of the friction skin.

3.2 Comparison.

Comparison is the direct or side-by-side observation of friction ridge detail to determine whether the detail in two impressions is in agreement based upon similarity, sequence and spatial relationship.

3.3 Evaluation.

Evaluation is the formulation of a conclusion based upon analysis and comparison of friction ridge impressions. Conclusions which can be reached are

3.3.1 Individualization (Identification).

Individualization is the result of the comparison of two friction ridge impressions containing sufficient quality (clarity) and quantity of friction ridge detail in agreement.

Individualization occurs when a latent print examiner, trained to competency, determines that two friction ridge impressions originated from the same source, to the exclusion of all others.

3.3.2 Exclusion.

Exclusion is the result of the comparison of two friction ridge impressions containing sufficient quality (clarity) and quantity of friction ridge detail which is not in agreement.

Exclusion occurs when a latent print examiner, trained to competency, determines that two friction ridge impressions originated from different sources.

3.3.3 Inconclusive.

Inconclusive evaluation results when a latent print examiner, trained to competency, is unable to individualize or exclude the source of an impression.

Inconclusive evaluation results must not be construed as a statement of probability. Probable,

possible. or likely individualization (identification) conclusions are outside the acceptable limits of the friction ridge identification science.

3.4 Verification.

Verification is the independent examination by another qualified examiner resulting in the same conclusion.

- 3.4.1 All individualizations (identifications) must be verified.
- 3.4.2 Exclusion or inconclusive results may be verified.

[The San Diego Sheriff's Crime Laboratory ALPS Section follows the SWGFAST Friction Ridge Examination Methodology for Latent Print Examiners, updated May 23, 2002.]

APPENDIX 3

ASCLD/LAB STANDARDS AND CRITERIA 1.4.2.14 (E)

9.9.9.3 Glossary – Identification

ANALYSIS

The methodical examination of friction skin impressions; separation into parts so as to determine the nature of the whole.

ARTIFACT

A structure or substance not normally present, but produced by some external agent or action.

BIFURCATION

The point at which one friction ridge divides into two friction ridges.

CHARACTERISTICS

Features of the friction ridges. Commonly referred to as minutia(e), Galton detail, point, feature, ridge formation, ridge morphology.

CLARITY

Visual quality of a friction ridge impression.

CLASS CHARACTERISTICS

Characteristics used to put things into groups or classes, e.g., arches, loops, whorls.

COMPARISON

The observation of two areas of friction ridge impressions for finding similarities and/or differences.

DISTORTION

Variances in the reproduction of friction skin caused by pressure, movement, force, contact surface, etc.

DOT

An isolated ridge unit whose length approximates its width in size.

EDGEOSCOPY

Study of the morphological characteristics of friction ridges; contour or shape of the edges of friction ridges.

ELASTICITY

The ability of skin to recover from stretching, compression, or distortion.

ELIMINATION PRINTS

Exemplars of friction ridge skin detail of persons known to have had access to the item examined for latent prints.

ENCLOSURE

A single friction ridge that bifurcates and rejoins after a short course and continues as a single friction ridge.

ENDING RIDGE

A single friction ridge that terminates within the friction ridge structure.

ERRONEOUS IDENTIFICATION

The incorrect determination that two areas of friction ridge impressions originated from the same source.

EVALUATION

The determination of the significance, value, or clarity of a friction ridge impression by careful observation and study.

EXEMPLAR

Friction ridge record of an individual, recorded electronically, photographically, by ink or other medium.

EXCLUSION

See Non-identification.

FINGERPRINT

An impression of the friction ridges of all or any part of the finger.

FRICTION RIDGE DETAIL (MORPHOLOGY)

An area comprised of the combination of ridge flow, ridge characteristics, and ridge structure.

FRICTION RIDGE IDENTIFICATION

See Individualization.

FURROWS

Valleys or depressions between the friction ridges.

GALTON DETAILS

Term referring to friction ridge characteristics attributed to the research of English fingerprint pioneer, Sir Francis Galton.

INCIPENT RIDGE

A friction ridge not fully developed which may appear shorter and thinner in appearance than fully developed friction ridges (interstitial, nascent).

INCONCLUSIVE

The inability to either identify (individualize) or exclude an area of friction ridge.

IDENTIFICATION

The determination that corresponding areas of friction ridge impressions originated from the same source to the exclusion of all others (individualization).

INKED PRINT (FINGER, PALM, FOOT)

See Exemplar.

INTERVENING RIDGES

The number of friction ridges between two characteristics.

LATENT PRINT

Transferred impression of friction ridge detail not readily visible; generic term used for questioned friction ridge detail.

LIFT

An adhesive or other medium on which recovered friction ridge detail is preserved.

LEVEL 1 DETAIL

Friction ridge flow and general morphological information.

LEVEL 2 DETAIL

Individual friction ridge paths and friction ridge events, e.g., bifurcations, ending ridges, dots.

LEVEL 3 DETAIL

Friction ridge dimensional attributes, e.g., width, edge shapes, and pores.

MAJOR CASE PRINTS

A systematic recording of all of the friction ridge detail appearing on the palmar sides of the hands. This includes the extreme sides of the palms, and joints, tips and sides of the fingers.

MINUTIAE

See Characteristics.

MISSED IDENTIFICATION

The failure to make an identification (individualization) when, in fact, both friction ridge impressions are from the same source.

NON-IDENTIFICATION

The determination that two areas of friction ridge impressions did not originate from the same source (exclusion).

PATENT PRINT

Friction ridge impression of unknown origin, visible without development.

POINTS/POINTS OF IDENTIFICATION

See Characteristics.

POROSCOPY

A study of the size, shape and arrangement of pores.

QUALITATIVE

The clarity of information contained within a friction ridge impression

QUANTITATIVE The amount of information contained within a friction ridge impression **RELATIVE POSITION** Proximity of characteristics to each other.

RIDGE CHARACTERISTICS See Characteristics.

RIDGEOLOGY

The study of the uniqueness of friction ridge skin and its use for personal identification (individualization).

RIDGE FLOW

A series of adjacent friction ridges in a directional arrangement.

RIDGE PATH

The directional flow of a single friction ridge.

SHORT RIDGE

A single friction ridge beginning, traveling a short distance, and ending.

SPUR

A bifurcation with one short ridge branching off a longer ridge.

TRIFURCATION

The point at which one friction ridge divides into three friction ridges.

VERIFICATION

Confirmation of an examiner's conclusion by another qualified examiner.

[The San Diego Sheriff's Crime Laboratory ALPS Section follows the SWGFAST Glossary of Identification, updated May 23, 2002.]

APPENDIX 4

ASCLD/LAB STANDARDS AND CRITERIA 1.4.2.14 (E)

Proposed: An example of the current reporting formats (Tox Lab Results and PacTox Report screens) will be attached here as Appendix 4.