ASCLD/LAB REMEDIATION REPORT

NOVEMBER 2008 INSPECTION FINDINGS AND RESPONSES

SAN DIEGO COUNTY SHERIFF'S REGIONAL CRIME LABORATORY

June 9, 2009

INTRODUCTION

This is the report of the ASCLD/LAB® accreditation inspection of the San Diego County Sheriff's Regional Crime Laboratory, which was conducted during the period of November 4 - 7, 2008.

The **ASCLD/LAB®** inspection team consisted of the following members:

Robert Gonsowski, Staff Inspector, ASCLD/LAB, Herrin, IL
Joe Minor, Tennessee Bureau of Investigation, Nashville, TN
Lawrence A. Presley, National Medical Services, Inc., Willow Grove, PA
Garth Glassburg, Northeastern Illinois Regional Crime Laboratory, Vernon Hills, IL
David Lee Parrett, Oklahoma County District Attorney, Oklahoma City, OK
Charles W. Dean, Austin Police Department, Austin, TX
Charles M. Pruitt, Virginia Department of Forensic Science, Richmond, VA
Greg L. Soltis, Federal Bureau of Investigation, Quantico, VA
Kelly Speckels, Mesa Police Department, Mesa, AZ
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Pamela M. Woods, Allegheny County Medical Examiners Office, Pittsburg, PA
Laurel Farrell, Staff Inspector, ASCLD/LAB, Longmont, CO

This report and the findings, observations, conclusions and recommendations are for pre-decisional purposes only. The inspection was performed using the principles, standards and criteria established in the 2008 version of the ASCLD/LAB® Accreditation Manual and version 6.0 of the FBI "Quality Assurance Standards for Forensic DNA Testing Laboratories and Convicted Offender DNA Databasing Laboratories."

LABORATORY OVERVIEW

The San Diego County Sheriff's Regional Crime Laboratory is a public laboratory which provides services primarily in the San Diego County area of California. The laboratory is located at 5255 Mount Etna Drive, San Diego, California, and is seeking renewal of its ASCLD/LAB accreditation. Crime Laboratory Director Gregory Thompson reports to Law Enforcement Services Assistant Sheriff James Cooke. The laboratory provides services in the disciplines of Controlled Substances, Toxicology (blood alcohol only), Biology, Firearms/Toolmarks (firearms only), Trace Evidence, Latent Prints, Questioned Documents, and Crime Scene. The Toxicology (blood alcohol) discipline is known as the Forensic Alcohol Section. The laboratory is seeking to add the discipline of Crime Scene as an accredited discipline. The laboratory has a staff of sixty-five (65) testifying analysts and twenty (20) support staff.

INSPECTION TEAM FINDINGS

The inspection team's scoring of each of the ASCLD/LAB Accreditation Standards and Evaluation Criteria from the 2008 Accreditation Manual follows. Each criterion for which the inspection team determined the laboratory to be in compliance is scored "Yes." Each criterion for which the inspection team found the laboratory to not be in total compliance is scored "No." Each criterion which is not applicable to the inspection of this laboratory is scored "N/A." The Summary portion of the report documents the basis for all non-compliance and all non-applicable findings of the Inspection team.

STANDARDS AND CRITERIA

All criteria were scored "Yes" with the following exceptions:

A training program to develop the technical skills of employees is essential in each applicable discipline and subdiscipline.

1.3.3.1 (E) Does the laboratory have and use a documented training program in each discipline and subdiscipline for employees who are new, untrained, or in need of remedial training?

Finding: "The Trace Evidence, Firearms, and Forensic Alcohol Training Manuals do not define how competency is established."

Responses:

1. Trace Evidence. Each training sub-discipline section of the Trace Evidence Section Manual (Sections 9.12.12.1 through 9.12.12.7) has been modified to clearly delineate when competency by the trainee has been achieved and the trainee is cleared to commence casework.

2. Firearms. Procedures defining how competency is established have been added to the Training section of the Firearms Analysis Unit Manual and General Crime Lab Manual. See Firearms Section Manual, Section 9.6.12.4 ("Completion of Firearms Training"), and the General Crime Laboratory Manual, Section 2.5.1.4 ("Internal Laboratory Training").

3. Forensic Alcohol. Section 9.7.12 ("Training") of the Forensic Alcohol Section Manual has been revised to define how competency is established. In the Laboratory Support Operations and the Breath Alcohol Program modules, competency is established for each task in the module as it is completed. In the Fluid Analysis and the Interpretation Testimony modules, competency is established once all tasks in the module have been completed by the trainee, signed off by the trainer(s), and a certificate has been issued by the Quality Assurance Manager.

A chain of custody record must be maintained which provides a comprehensive, documented history of each evidence transfer over which the laboratory has control.

1.4.1.1 (E) Does the laboratory have a written or secure electronic chain of custody record with all necessary data which provides for complete tracking of all evidence?

Finding: "The chain of custody record in the Forensic Alcohol Section does not document the transfer of evidence from the receiving lab assistant to the temporary storage and from the temporary storage to the analyst."

Response:

The Fluid Run Worksheet has been revised to add chain-of-custody documentation of sample movement within the Alcohol Section (from Blood Alcohol Room 192 to Room 204). Section 9.7.4.2.3 ("Accessioning Samples and Assigning Laboratory ID Numbers") of the Forensic Alcohol Manual has been revised to reflect this change. Also, the language currently used by the Lab Assistant regarding the chain of custody on the logsheets has been changed to reflect that samples are transferred from the Lab Assistant to Blood Alcohol Room 192. This was discussed at an Alcohol Section meeting on December 15, 2008.

The laboratory must maintain written copies of appropriate technical procedures.

1.4.2.7 (E) Are the technical procedures used by the laboratory documented and are the documents available to laboratory personnel for review?

Finding: "Procedures for ejection pattern analysis and trajectory determination are not documented in the Firearms Section Manual."

Response:

Procedures for ejection pattern analysis and trajectory determination have been added to the Firearms Section Manual. See Section 9.6.6 ("Methods") – FAIII-7 ("Ejection Pattern Determination") and Section 9.6.6 ("Methods") – TD-I-I ("Trajectory Determination")

Controls and standard samples must be used and documented in the case record to ensure the validity of the testing parameters and, thereby, the conclusion.

1.4.2.8 (E) Are appropriate controls and standards specified in the procedures and are they used and documented in the case record to ensure the validity of examination results?

Finding: "The Forensic Alcohol Section Manual does not provide instruction on the evaluation of unacceptable performance criteria for controls and standards."

Response:

Section 9.7.6.2.3 ("Performance Criteria for Controls and Standards") has been added to the Forensic Alcohol Section Manual. This section defines performance criteria for the calibration samples and controls. It also establishes the protocol for analysts to follow if calibration set standards or quality control standards do not meet the acceptable criteria.

Finding: “Positive controls which show separation and negative controls are not used for the identification of controlled substances by thin layer chromatography.”

Response:

Analysts in the CSA Section now run a negative control on all thin layer chromatography plates. Section 9.4.12 (“Training”) of the CSA Section Manual has been revised to require analysts to run negative controls, in addition to positive controls, that show separation when using thin layer chromatography. Specifically, Section 9.4.12.E.2 (“How To Perform Thin Layer Chromatography”) has been revised to include a negative control, and Section 9.4.12.E.4 (“Assignment”) has been revised to require that positive controls show separation.

Finding: “The Biology discipline does not have a policy which addresses procedures for acting upon data that are unacceptable, and the mechanisms used for documentation of the subsequent rejection of unacceptable quality control data. (DNA audit criteria 9.2.3a)”

Response:

The Forensic Biology/DNA Section Manual has been revised to include a policy that addresses procedures for acting on data that are unacceptable, and the mechanisms used for documentation of the subsequent rejection of unacceptable quality control data. Specifically, a procedure has been created to address failed critical reagent quality control results. The procedure modifies Section 9.8.11.1 (“Quality Control of Critical Reagents”) of the Forensic Biology/DNA Section Manual.

All reagents must be routinely tested for their reliability.

1.4.2.10 (E) Does the laboratory routinely check the reliability of its reagents?

Finding: “Laboratory analysts in the Latent Prints and Crime Scene disciplines check the reliability of ninhydrin and physical developer chemical processing solutions concurrently rather than prior to application on casework as required by laboratory policy.”

Response:

Analysts were instructed at a section meeting (February 12, 2009) and by e-mail to check the reliability of ninhydrin and physical developer chemical processing solutions prior to using them on casework.

The laboratory’s unique case identifier must be on each page of examination documentation, and the handwritten initials (or secure electronic equivalent) of the

person generating the examination documentation must be on each page generated by that person.

1.4.2.15 (E) Does the laboratory's unique case identifier appear on each page of examination documentation, and does the handwritten initials (or secure electronic equivalent) of the person generating the examination documentation appear on each page generated by that person?

Finding: "The Forensic Alcohol Section Manual (Section 9.7.8, Case Notes) requires that 'each page of the notes will bear the case number, date of generation and analyst's handwritten initials.' Each page of the gas chromatographic data does not contain the case number."

Response:

A unique Run ID has been created to associate the calibration and quality control data to batched samples. The unique Run ID consists of the date, the analyst's initials, and the name of the instrument used for the analysis. Sections 9.7.8 ("Case Notes") and 9.7.9 ("Reports") of the Forensic Alcohol Section Manual have been revised to include the unique Run ID.

Examination documentation must be sufficiently detailed to support the conclusions and opinions reported by the examiner(s) and must be such that, in the absence of the examiner(s), another competent or supervisor could evaluate what was done and interpret the data. Examination documentation must be of a permanent nature and must be free of obliterations and erasures.

1.4.2.16 (E) Are conclusions and opinions in reports supported by data available in the case record, and are the examination documents sufficiently detailed such that, in the absence of the examiner(s), another competent examiner or supervisor could evaluate what was done and interpret the data?

Finding: "Electronic images of latent prints used in the examination are stored on the latent print imaging system and on compact discs. The laboratory transfers the compact discs containing the images to the Property and Evidence Section, which is outside the control of the laboratory. The laboratory does not have an archival procedure for these images and deletes them from the imaging system after approximately one year."

Response:

Electronic images captured and stored on the DCS-4 digital workstation (latent print imaging system) are stored and secured on an external storage device. All other images captured by examiners are stored and secured on the laboratory's computer server. This procedure was discussed in a Latent Print Analysis section meeting on February 18, 2009.

Finding: “As required under the Latent Prints Section Policy and Procedure Manual, Section 9.9.6.1.3.1, ‘The reporting of no identification in a laboratory service report indicates an exclusion or that an individualization was not made/or located in the analysis.’ The use of the above statement in the examination documentation and report does not provide information to specify whether a conclusion of exclusion or inconclusive was reached. Additionally, the laboratory requires latent print examiners to perform comparisons and report findings according to the guidelines of the Scientific Working Group on Friction Ridge Analysis, Study, and Technology (SWGFAST) which also requires conclusions of exclusion or inconclusive.”

Response:

Section 9.9.6 (“Methods”) of the Latent Print Analysis Section Manual has been revised to make the distinction between a conclusion of exclusion or inconclusive in a latent print comparison examination. This information was conveyed to analysts at a section meeting (February 18, 2009) and by e-mail (February 12, 2009).

Finding: “Examination documentation from the Latent Print Development Section did not reflect which latent print process rendered friction ridge detail.”

Response:

Forms have been created and distributed to analysts to document the process used to render the friction ridge detail. (See “Latent Print Development Case Notes Forms” folder on CD.) This information was conveyed to analysts at a section meeting (February 18, 2009) and by e-mail (February 12, 2009).

Finding: “The latent print examiners do not record the sequence of the examination used to process latent print images.”

Response:

Section 9.9.8 (“Case Notes”) of the Latent Print Analysis Section Manual has been revised to require the recording of the sequence of the examination used to process latent print images. This information was conveyed to analysts at a section meeting (February 18, 2009) and by e-mail (February 12, 2009).

Finding: “Many abbreviations which are not readily comprehensible to a reviewer are used in latent print examination documentation but are not documented in the laboratory’s procedures.”

Response:

Section 9.9.13 (“Latent Print Unit Glossary of Abbreviations Used in Case Notes”) was added to the Latent Print Analysis Section Manual to make abbreviations readily comprehensible to reviewers. This information was conveyed to analysts at a section meeting (February 18, 2009) and by e-mail (February 12, 2009).

Finding: “Thin layer chromatography data in the Controlled Substances discipline is not documented for another competent examiner to evaluate and interpret the data.”

Response:

Analysts in the CSA Section will make color copies of thin layer plates and include them as part of the case notes. This will provide the necessary data for another competent examiner to evaluate and interpret the results. Section 9.4.12.E.4 (“Reviewable Data”) of the CSA Section Manual has been added to include this change to documenting thin layer chromatography results.

Written reports must be generated for all analytical work performed on evidence by the laboratory and must contain the conclusions and opinions that address the purpose for which the analytical work was undertaken. The significance of associations made must be communicated clearly and qualified properly. The name of the authors(s) must appear in the report.

1.4.2.19 (E) Does the laboratory generate written reports for all analytical work performed on evidence, and do the reports contain the conclusions and opinions that address the purpose for which the analytical work was undertaken?

Finding: “Reports are not generated by the Forensic Alcohol Section when blood alcohol samples are re-examined upon request. The results of these examinations are only provided through oral communication and no records are maintained.”

Response:

A protocol for reporting results from reexamined samples has been added to Section 9.7.9 (“Reports”) of the Forensic Alcohol Section Manual, and re-test results are now reported in the “Comments” column of the Alcohol Section logsheet.

Written reports must be generated for all analytical work performed on evidence by the laboratory and must contain the conclusions and opinions that address the purpose for which the analytical work was undertaken. The significance of associations made must be communicated clearly and qualified properly. The name of the authors(s) must appear in the report.

1.4.2.20 (E) Where associations are made, is the significance of the association communicated clearly and qualified properly in the report?

Finding: “Controlled substances tablet identifications, which are based upon library searches, are not properly qualified in the laboratory reports.”

Response:

CSA Section analysts now qualify tablet identifications based on library searches. Specifically, reports state "Identification by Literature Search Only" in addition to the name of the literature reference used to identify the tablet. A protocol ("Procedures for the Identification of Tablets and Capsules") has been added to Section 9.4.6 ("Methods") of the CSA Section Manual.

Written reports must be generated for all analytical work performed on evidence by the laboratory and must contain the conclusions and opinions that address the purpose for which the analytical work was undertaken. The significance of associations made must be communicated clearly and qualified properly. The name of the authors(s) must appear in the report.

1.4.2.21 (E) Does the name of the author(s) appear in the report?

Finding: "The blood alcohol analysis reports which are electronically issued by the Forensic Alcohol Section through the IBM SNA Mainframe do not include the name and signature (or secure electronic equivalent) of the author responsible for the conclusions expressed in the report."

Response:

The IBM SNA Mainframe does not allow for the inclusion of the required information. Therefore, Section 9.7.9 ("Reports") of the Forensic Alcohol Section Manual has been revised to clearly define the logsheet as the final report for blood and urine samples analyzed by the Alcohol Section, and to designate the IBM SNA Mainframe as a database tool used for disseminating information to the lab's customers. Specifically, Section 9.7.9.1 ("Reporting Alcohol Results") has been revised to clearly define the role of the logsheet in reporting out alcohol results, and Section 9.7.9.3 ("IBM SNA Mainframe") has been deleted.

It is logical for the logsheet to be considered the final report. The logsheet is the mechanism used to report results to the San Diego Courts in discovery and is also the manner in which the Department of Motor Vehicles receives results from the Crime Lab. Additionally, the logsheet is the document used by Alcohol Section criminalists when testifying in court regarding results. The IBM SNA Mainframe is used by the District Attorney's Office to quickly see results and is analogous to receiving a result via e-mail. Although the changes described above should adequately address this finding, a major change to the way in which alcohol results are reported is currently being developed. The plan is to report alcohol results electronically in a pdf format and post those results on a secure website, making them readily available to the lab's customers. This plan will require resources from the Sheriff's Data Services Division as well as the Sheriff's Property & Evidence Unit. Preliminary discussions with representatives from Sheriff's Data Services regarding this project have already begun.

Finding: “The blood alcohol analyses reports provided to the Department of Motor Vehicles in the form of the Forensic Alcohol Section log sheets do not contain the name of the laboratory, do not clearly provide the date of the report (an abbreviation is used in the title of the column), and do not contain the name and signature (or secure electronic equivalent) of the author responsible for the conclusions in the report.”

Response:

The Forensic Alcohol Section logsheet has been revised to include the name of the laboratory and to clearly indicate the date of the report by changing the abbreviation “Date Ana.” to “Date Analyzed” in the title of the column. Additionally, new stamps have been ordered for each Alcohol Section analyst. The new stamp includes the printed name of the analyst and a place for a signature.

Finding: “In the Controlled Substances discipline, the hand written reports contain the signature of the author but do not always contain the printed name of the author.”

Response:

A stamp containing their printed name has been ordered for each CSA Section analyst. All analysts now sign their reports as well as stamp them to include their printed name.

Administrative reviews must be conducted to ensure the completeness and correctness of the reports issued.

1.4.2.23 (E) Does the laboratory conduct and document administrative reviews of all reports issued?

Finding: “Although the laboratory conducts and documents administrative reviews of all reports issued, Section 9.7.9.3 of the Forensic Alcohol Section Manual does not require administrative review of all reports.”

Response:

Section 9.7.9 (“Reports”) of the Forensic Alcohol Section Manual has been revised. Specifically, Section 9.7.9.3 (“IBM SNA Mainframe”) has been removed from the manual because the IBM Mainframe is no longer considered to be the report for blood and urine alcohol results (the logsheet is now considered to be the report). All results on the logsheet are administratively reviewed per Section 9.7.9.2 (“Review of Gas Chromatograph Results”) of the section manual.

The laboratory must have a written procedure which it uses to initiate a review and to take corrective action when the laboratory has an indication of a significant problem with a technical procedure or the work of an analyst.

1.4.2.25 (E) If the laboratory has an indication of a significant technical problem, is there a procedure in writing and in use whereby the laboratory initiates a review and takes any corrective action required?

Finding: "The laboratory did not consistently follow their corrective action procedure when there is an indication of a significant technical problem. The laboratory did not convene a Corrective Action Review Panel, review previous casework, perform a root cause analysis, determine a remediation program, or establish a period for review of future casework." [Corrective Action #42]

Response:

For Corrective Action #42, a Corrective Action Review Panel was convened, but the meetings were not documented. The laboratory has reopened Corrective Action #42 and is contracting with an external examiner to review the past casework of the examiner in question. The examiner in question retired in 2008, so there is no future work to follow up on. Further steps will depend on the results of the external examination of past casework. The laboratory will create and follow an action plan to document and remediate any cases where errors are discovered.

The laboratory should conduct annual proficiency testing in each discipline using re-examination or blind techniques.

1.4.3.4 (I) Does the laboratory conduct proficiency testing using re-examination or blind techniques?

Finding: "The laboratory does not conduct proficiency testing using re-examination or blind techniques."

Response:

The laboratory accepts this finding as a "No."

A laboratory director should have at least five years of forensic science experience performing casework in one of the ASCLD/LAB accredited disciplines.

2.1.2 (D) Does the laboratory director have at least five years of forensic science experience?

Finding: "The laboratory director does not have at least five years of forensic science experience performing casework in one of the ASCLD/LAB accredited disciplines."

Response:

The laboratory accepts this finding as a "No."

Latent print examiners should have a baccalaureate degree with science courses.

2.8.1 (I) Does each examiner possess a baccalaureate degree with science courses?

Finding: "Not all latent print examiners possess a baccalaureate degree with science courses."

Response:

The laboratory accepts this finding as a "No."

The laboratory should have safety shower and eye wash equipment in appropriate locations and in good working condition.

3.4.6 (I) Does the laboratory have safety shower and eye wash equipment in appropriate locations and in good working condition?

Finding: "Laboratory work areas in the controlled substances area in which caustic substances are routinely used in analysis, do not have eyewash equipment in appropriate locations."

Response:

Additional eyewash equipment was ordered for this particular area of the CSA Section, and there is now eyewash equipment in each analyst's work area.

Space should be provided for safe storage of volatile, flammable, explosive, and other hazardous materials.

3.4.10 (I) Is appropriate space provided for safe storage of volatile, flammable, explosive, and other hazardous materials?

Finding: "Crime Scene analysts discard items contaminated with body fluids into regular trash bins in violation of Health and Safety SOP, Medical Waste Management Plan containment and storage section pg 3."

Response:

This finding revolves around the issue of how to dispose of items, such as butcher paper, that have been in contact with fluid blood. An example of this is when our evidence technicians lay a bloody item of clothing on butcher paper to photograph the item. After photographing the item, they must decide whether to place the contaminated butcher paper in the regular trash or the biohazard waste.

If the blood has dried, the butcher paper can be disposed of in the regular trash. If the blood on the butcher paper is still liquid, it must be disposed of in the biohazard waste. However, the 2007 version of the Medical Waste Management Plan (MWMP) did not give clear direction. To clarify this, the MWMP has been revised (see 2008 version). Both versions are included on the accompanying CD.

The following two quotes from the revised 2008 version of the MWMP speak directly to this issue (underlining added for emphasis):

"4) Waste, which at the point of transport from the generator's site, at the point of disposal, or thereafter, contains recognizable fluid blood, fluid blood products, containers or equipment containing blood that is fluid, or blood from animals known to be infected with diseases which are highly communicable to humans." [Page 2, under "Biohazardous Waste"]

"3) Waste which is not biohazardous, such as paper towels, paper products, articles containing nonfluid blood, and other medical solid waste products commonly found in the facilities of medical waste generators." [Page 3, under "Not Medical Waste"]

The above definitions of waste form the basis for determining how to dispose of an item contaminated with blood. Based on this information, items containing dried blood can go into the regular trash, and items containing liquid blood must go into the biohazard waste.

The above procedure is now consistent with our own policy (2008 version of the MWMP), and is also in compliance with Cal/OSHA Section 5198 ("Bloodborne Pathogens") and California Health & Safety Code Section 117700 from the Medical Waste Management Act (both included on the accompanying CD).

General cleanliness and good-housekeeping should be apparent.

3.4.12 (D) Is there general cleanliness and apparent good-housekeeping in the laboratory?

Finding: "Analysts in the Biology discipline reported a lack of pest control in the laboratory work areas."

Response:

The laboratory accepts this finding as a "No." However, the laboratory is on a regular schedule for visits by County pest control personnel, who are treating the problem on a regular basis. It is believed that this particular pest control issue, which consists of the occasional sighting of cockroaches in certain sections of the Biology work area, may be exacerbated by moisture seeping up from the ground. A remodel is underway to fix the moisture problem, which may reduce or eliminate the pest control issue.

Criteria 1.4.1.7 through 1.4.1.9 were scored N/A because the laboratory treats the individual characteristic database samples as evidence.

Criteria 2.11.1 through 2.11.5 were scored N/A because the laboratory does not perform work in this discipline (Digital Evidence).

SUMMATION OF CRITERIA RATINGS

	Total Possible	Total Yes	Total No	Total N/A	Total Number Yes/No
Essential	91	72	12	7	84
Important	45	40	4	1	44
Desirable	16	14	2	0	16

Percent Essential: 86%

Percent Important: 91%

Percent Desirable: 88%

Areas sought for accreditation are as follows:

Controlled Substances
Toxicology (blood alcohol only)
Biology
Firearms/Toolmarks (firearms only)
Trace Evidence
Latent Prints
Questioned Documents
Crime Scene

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