

A REPORT BY
THE 2018-2019 CONTRA COSTA COUNTY GRAND JURY
725 Court Street
Martinez, California 94553

Report 1908

**Contra Costa County Sheriff's
Forensic Services Division**

How Well Are the County Law Enforcement Agencies Being Served by the Crime
Lab?

APPROVED BY THE GRAND JURY

Date MAY 21, 2019



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GRAND JURY FOREPERSON

ACCEPTED FOR FILING

Date MAY 22 2019



ANITA L. SANTOS
JUDGE OF THE SUPERIOR COURT

Contra Costa County Grand Jury Report 1908

Contra Costa County Sheriff's Forensic Services Division

How Well Are the County Law Enforcement Agencies Being Served by the Crime Lab?

TO: Contra Costa County Office of the Sheriff

SUMMARY

The processing of evidence for law enforcement agencies is a critical element in criminal investigations and prosecutions. Currently available technology for accurate and rapid handling of evidence far exceeds what was available five years ago. Criminal crime cases that were previously suspended for lack of evidence can now be forwarded to the District Attorney for prosecution. The use of DNA to link or eliminate suspects to a crime is now a common protocol used by law enforcement. The Grand Jury's investigation examined the Contra Costa County Sheriff's Forensic Services Division's (Crime Lab) ability to meet the demands of the 28 law enforcement agencies in the Contra Costa County (the County) for forensic services.

The Crime Lab collects, analyzes, interprets, and presents physical evidence in court to assist in the prosecution or defense of crimes. Sophisticated scientific tools are needed for testing DNA, firearms, latent fingerprints, and trace material. Expert testimony in the use and interpretation of test results is important for solving crimes. Law enforcement, attorneys, judges, and jurors place great importance on this material evidence.

The Crime Lab processed approximately 10,000 cases during the 15 months ending September 30, 2018. There is currently no backlog of evidence waiting to be tested in the Crime Lab. Cross-training of staff between the Crime Lab's Latent Print Unit and the Comparative Evidence Unit has helped reduce backlog and decrease turnaround time. In August 2018, the ANSI National Accreditation Board (ANAB) awarded the Crime Lab its highest rating for quality assurance standards.

The Grand Jury recommends the Contra Costa County Office of the Sheriff (Sheriff's Office) consider directing the Crime Lab to increase law enforcement agency awareness of newly acquired equipment, turnaround times, and available testing

capacity. To eliminate the redundancy of effort and seek a competitive rate for Gunshot Residue (GSR) testing, the Grand Jury recommends the Sheriff's Office consider studying the possibility of becoming the GSR testing contract organization for all law enforcement agencies in the County. The Grand Jury also recommends the Sheriff's Office consider preparing a five-year strategic plan to determine the future needs of the Crime Lab, including the benefits of combining all locations into one.

METHODOLOGY

During its investigation, the Grand Jury:

- Sent a Request for Information (RFI) survey to 26 law enforcement agencies served by the Sheriff's Office within the County (see list of agencies in Appendix A)
- Researched California state crime labs, including the Los Angeles Regional Crime Laboratory Facility in Los Angeles County
- Toured Summit Laboratory and Muir Laboratory, the two analysis laboratories within the Crime Lab
- Conducted interviews with representatives from County law enforcement agencies and the Crime Lab

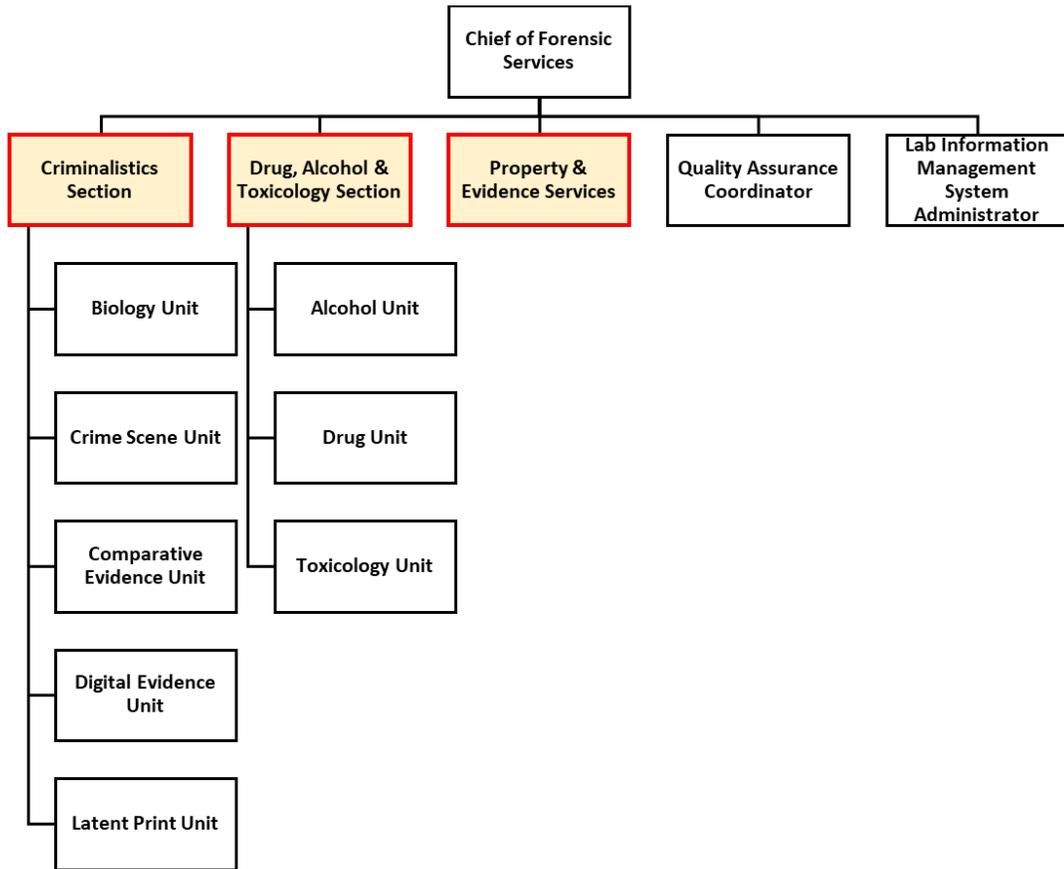
BACKGROUND

In Contra Costa County, the Sheriff's Office is responsible for the operation and management of the Crime Lab. Crime Lab services are housed at three separate locations: Summit Lab and Muir Lab in Martinez, and Property and Evidence Services in north Concord. The Crime Lab has a staff of 64 employees. For the 2019-2020 fiscal year, its proposed annual operating budget is \$15.7 million. The staff is divided among the three major sections of the Crime Lab as shown on the following organization chart:



Muir Lab

Crime Lab Organization Chart



Criminalistics Section

This section is located at Summit Lab in Martinez. Criminalistics is the scientific study and evaluation of physical evidence from the commission of crimes. It includes five units:

The **Biology Unit** consists of examiners who analyze items of evidence for the presence of biological material. This is where analysis is conducted on DNA evidence. This unit recently acquired a RapidHIT ID system, which will enable the Crime Lab to generate a DNA profile in under two hours, instead of days. This equipment uses the Combined DNA Index System (CODIS), administered by the FBI. It electronically exchanges and compares DNA profiles between local, state, and federal agencies. The RapidHIT ID system is projected to be online in the fall of 2019.

The **Crime Scene Unit** responds to a crime scene, and is responsible for the collection of evidence. It uses various types of equipment to develop, secure, and package physical evidence for scientific evaluation and comparison.

The **Comparative Evidence Unit** examines firearms and ammunition used in the commission of a crime to determine the weapon's manufacturer, model, serial number, and other physical characteristics. It utilizes the National Integrated Ballistics Information Network (NIBIN), which is administered by the US Department of Justice Bureau of Alcohol, Tobacco, Firearms, and Explosives to determine ownership and history.

The **Digital Evidence Unit** uses forensics to provide image, video, and audio analysis and enhancement when technology is used for committing crimes.

The **Latent Print Unit** develops and recovers latent fingerprints from items of evidence found at a crime scene and compares them to prints already in the forensic database. The examiners conduct local, regional, and national database searches through the Automated Fingerprint Identification System (AFIS), which is administered by the FBI.

Drug, Alcohol & Toxicology Section

The Drug, Alcohol & Toxicology Section is located at Muir Lab in Martinez. Drug, Alcohol & Toxicology conducts testing of evidence collected at a crime scene or from criminal suspects. This section is made up of three units:

The **Drug Analysis Unit** analyzes powders, solid materials, liquids, plant material, blotter paper, and food items for the presence of controlled substances. It also examines drugs in the form of tablets, capsules, and patches.

The **Alcohol Unit** performs tests on blood, urine, and breath samples. It maintains and calibrates all breath test equipment used by law enforcement agencies in the County.

The **Toxicology Unit** receives bodily fluid samples from law enforcement agencies obtained for a variety of offenses. This includes driving under the influence of alcohol and/or drugs. While there are statutory limits for driving under the influence of alcohol, none exist for other drugs. Staff provides expert toxicology testimony in court regarding the effects of alcohol and/or drugs on human performance and behavior.

Property and Evidence Services

This section is located in north Concord. Property and Evidence Services is responsible for the storage and handling of all physical evidence for the Sheriff's Office and substations, cities that contract with the Sheriff for police services, and the courts.

DISCUSSION

The FBI emphasized the importance of crime labs when it said: "Forensic analysis of evidence is often crucial to determination of guilt or innocence." Crime labs strengthen the results of investigations by using scientific techniques to analyze and evaluate evidence.

With new DNA testing and the media reporting on the national backlog of rape kit testing, the Grand Jury was interested in how the Crime Lab was meeting the demands of local law enforcement and keeping up with the latest trends in criminology.

The Grand Jury examined three aspects of Crime Lab performance:

- Backlog of un-analyzed evidence and turnaround time
- Quality of the work performed
- GSR testing

The Grand Jury sent an RFI to 26 County agencies served by the Crime Lab asking for their assessment of its performance.

Backlog of Un-Analyzed Evidence and Turnaround Time

During the 15 months ending September 30, 2018, the Crime Lab received approximately 10,000 cases from law enforcement agencies in the County. The 25 agencies responding to the RFI indicated they had no backlog of untested evidence. As of September 30, 2018, 22 of the agencies served did not have any evidence awaiting testing. Three agencies were waiting for analysis of evidence submitted within the previous week. The Crime Lab indicated it has the ability to handle more evidence testing. It also reported that the turnaround time for analysis of all types of evidence averages 30 days, this work could take a few days or weeks, depending on the test.

With the help of a federal grant from the US Department of Justice, all rape kits submitted by the agencies to the Crime Lab have been tested. Fingerprint analysis is also up-to-date.

In this same period, the Comparative Evidence Unit established a protocol to have all shell casings and bullets tested and entered into the NIBIN national database. The cross-training of staff between Latent Print and Comparative Evidence units helped reduce the time it takes to get NIBIN test results back to investigators.

QUALITY OF THE WORK PERFORMED

In August 2018, the Crime Lab was awarded the highest rating by ANAB. ANAB is the longest established provider of accreditation of forensic agencies in the United States. This authoritative body confirms that an organization, such as the Crime Lab, is competent to carry out forensic testing. The accreditation verifies that the Crime Lab conforms to the requirements of national and international criteria. Most importantly, it assures industry and government decision-makers that the test results from accredited organizations are reliable. In addition, it ensures global acceptance of reports from ANAB-accredited laboratories.

All 25 agencies that responded to the RFI indicated satisfaction with the quality of



ANSI-ASQ National Accreditation Board

**SCOPE OF ACCREDITATION TO:
ISO/IEC 17025:2005**

**ANAB 17025:2005 Forensic Science Testing Laboratories Accreditation Requirements:2017
FBI Quality Assurance Standards for Forensic Testing Laboratories:2011**

**Contra Costa County Office of the Sheriff
Forensic Services Division**

See locations listed below

FORENSIC TESTING

Valid to: December 31, 2022

Certificate Number: FT-0050

Summit Laboratory
2530 Arnold Drive, 2nd Floor
Martinez, California 94553

analysis performed by the Crime Lab. It conducts its own annual customer satisfaction survey. Results of its latest survey were also positive.

Even with the Crime Lab's annual outreach to the agencies it serves, the Grand Jury found law enforcement agencies are not fully aware of the newly acquired equipment, turnaround times, and available capacity for testing.

Gunshot Residue Testing

The Crime Lab is not able to provide GSR testing due to the \$500,000 cost of the test equipment and the additional cost to recalibrate and maintain it. When combined with the irregular demand for testing, there would be insufficient revenue to offset the cost.

GSR testing is used to help determine if an individual fired a weapon. In Contra Costa County, the Crime Lab does not provide this test, but contracts with other crime labs for tests in Sheriff-Coroner cases. The current contract is with the Los Angeles County Sheriff's Office. Each of the other 26 law enforcement agencies in the County must also contract out for the testing. They use a number of different crime labs throughout the state.

Each of these agencies must prepare a Request for Proposal to send out to potential bidders for the contracts. The lowest bidder is often selected and awarded the contract. During the term of the contract, staff must monitor and make sure invoices for service are properly paid.

This process has multiple agencies performing the same task. It takes up more staff time than if a single organization coordinated a contract for GSR testing for all the County's law enforcement agencies. The Crime Lab already does GSR contracting for the Sheriff's Office. To eliminate redundancy of effort and seek a competitive rate, the Grand Jury recommends the Sheriff's Office consider studying the possibility of becoming the GSR testing contract organization for all law enforcement agencies in the County.

One Crime Lab, Three Locations

In 1992, Contra Costa County built the Forensic Science Center in Martinez. This served a dual purpose as the Coroner's Division and the Crime Lab. This was before DNA evidence became prevalent, requiring additional space for testing. Digital crime has also increased since 1992, which requires additional lab space. As the County population grew, the volume of evidence that needed to be tested increased. The Crime Lab was forced to relocate the Criminalistics section to the new Summit Lab, while maintaining Alcohol, Drug, and Toxicology services at Muir Lab in the Forensic Science Center.

Today, the Crime Lab is in three different locations. Summit Lab, with 25,000 square feet, and Muir Lab, at 10,000 square feet, are in Martinez across from each other on the north and south sides of Highway 4. Property and Evidence Services has 40,000 square feet in north Concord, more than three miles from Muir and Summit labs.

Government crime labs in Solano County and Santa Clara County are managed by their District Attorney's offices and both are at single locations. San Francisco and Oakland each have city crime labs, also at single locations. San Mateo County has a crime lab that provides services to its Sheriff's office and 22 cities, all at one location.

Is it time to consider consolidating the Crime Lab into a single location to meet the current and future needs of Contra Costa County? This could be beneficial for cross-training and supervision of staff. A five-year strategic plan for the Crime Lab would be helpful to determine its future needs including facilities, staffing, and equipment replacement.

FINDINGS

- F1. The 25 agencies that responded to the RFI affirmed their satisfaction with the quality of analysis performed by the Crime Lab.
- F2. The Crime Lab's average analysis turn-around time is 30 days, depending on the test.
- F3. The Crime Lab indicates it can do more crime evidence testing.

- F4. The Crime Lab confirmed it has no strategic plan to address its future needs, including facilities, staffing, and equipment replacement.
- F5. The Crime Lab indicated that having Summit Lab, Muir Lab, and Property and Evidence Services operating in separate locations inhibits cross-training and supervision of staff.
- F6. Even with the Crime Lab's annual updates, not all law enforcement agencies in the County are fully aware of newly acquired equipment, turnaround times, and available capacity for testing.
- F7. The Sheriff's Office and the other 27 County law enforcement agencies use outside labs for GSR testing.

RECOMMENDATIONS

- R1. The Sheriff's Office should consider preparing a five-year strategic plan for the Crime Lab by December 31, 2020.
- R2. As part of a five-year strategic plan, the Sheriff's Office should consider evaluating whether to consolidate its Crime Lab facilities, assess staffing needs, and develop an equipment update plan by December 31, 2020.
- R3. The Sheriff's Office should consider expanding its outreach to all law enforcement agencies in the County to promote its newly acquired equipment, turnaround times, and available capacity for testing by December 31, 2019.
- R4. To eliminate the redundancy of effort and seek a competitive rate, the Sheriff's Office should consider studying the possibility of becoming the GSR testing contract organization for all law enforcement agencies in the County by December 31, 2020.

REQUIRED RESPONSES

	Findings	Recommendations
Contra Costa County Office of the Sheriff	F1, F2, F3, F4, F5, F6, and F7	R1, R2, R3, and R4

These responses must be provided in the format and by the date set forth in the cover letter that accompanies this report. An electronic copy of these responses in the form of a Word document should be sent by e-mail to ctadmin@contracosta.courts.ca.gov and

a hard (paper) copy should be sent to:

Civil Grand Jury – Foreperson
725 Court Street
P.O. Box 431
Martinez, CA 94553-0091

APPENDIX A

LIST OF AGENCIES SERVED BY THE CRIME LAB

Cities:	Other Agencies:
<ul style="list-style-type: none">• Antioch Police Department• Brentwood Police Department• Clayton Police Department• Concord Police Department• Danville Police Department• El Cerrito Police Department• Hercules Police Department• Lafayette Police Department• Martinez Police Department• Moraga Police Department• Oakley Police Department• Orinda Police Department• Pinole Police Department• Pittsburg Police Department• Pleasant Hill Police Department• Richmond Police Department• San Ramon Police Department• San Pablo Police Department• Walnut Creek Police Department	<ul style="list-style-type: none">• BART Police Department• California Highway Patrol• Contra Costa Community Colleges• Coroner's Office• District Attorney's Office*• East Bay Regional Parks District• Kensington Police Department• Public Defender's Office*• Sheriff's Office

**RFI not sent to these agencies*

APPENDIX B
LIST OF ACRONYMS

AFIS	Automated Fingerprint Identification System
ANAB	ANSI National Accreditation Board
ANSI	American National Standards Institute
CODIS	Combined DNA Index System
DNA	Deoxyribonucleic acid
FBI	Federal Bureau of Investigation
GSR	Gunshot Residue
NIBIN	National Integrated Ballistics Information Network
RFI	Requests for Information