

Evaluating 278A Cases



The MA State Police Crime Laboratory Perspective

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Overview

- Crime Laboratory Role in 278A Cases
 - Evidence locating
 - Evaluation of potential for DNA testing
 - Testing options
 - Logistical considerations



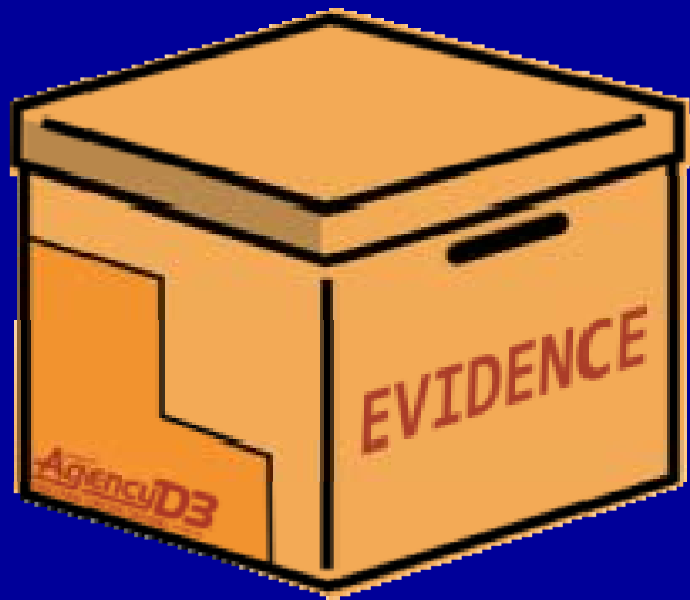


What Evidence Exists?

- Laboratory Information Management System
 - Electronic tracking system for all evidence within the custody of the Laboratory
 - If the Lab has any physical evidence remaining, it will be logged into our LIMS system
 - Simple access of the LIMS system will show, at a minimum, if something is in the Lab's possession and where it is located (building, cold room, freezer etc.)
 - Electronic chain of custody available

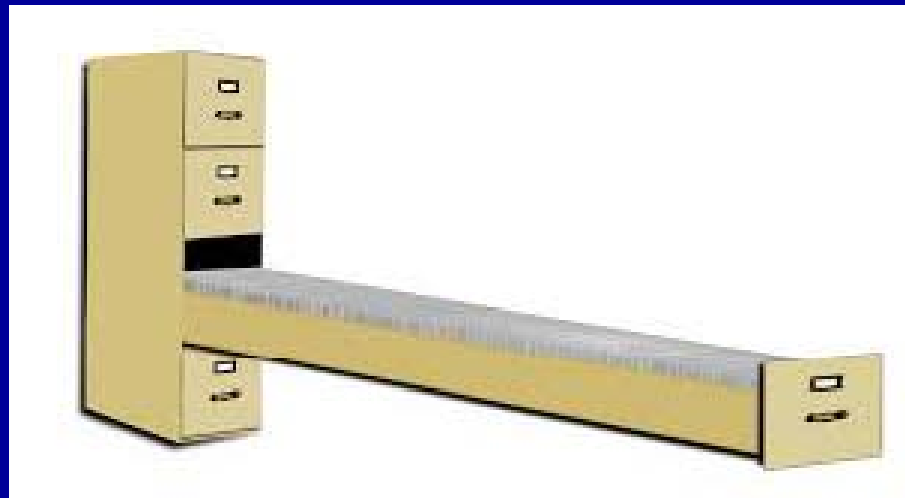
Challenges

- Physical Evidence
 - Cases may need to be inventoried
 - The Lab may initially report “multiple cuttings”
 - NOTE: This is **NOT** indicative of improper storage

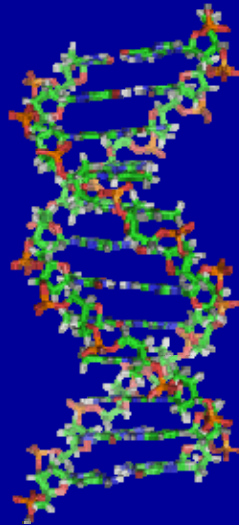


Challenges

- Paper records
 - May or may not be in LIMS
 - Initiative under 278A grant to enter Criminalistics cases into an electronic database.



Physical Evidence Exists...Now what?



How does the lab determine if a piece of evidence has the potential to yield *valuable* information?

Evaluating the Evidence

- How does the Lab define “valuable”?
 - The Lab does **NOT** evaluate the legal potential of evidence.
 - The Lab **DOES** evaluate the evidence to determine if it has the potential to yield forensically relevant and interpretable results



Evaluating the Evidence

- Considerations

- Was biological material identified?

- Blood, semen, saliva, hair

- Is “handler”, “user”, “wearer” important?

- Storage conditions become more significant

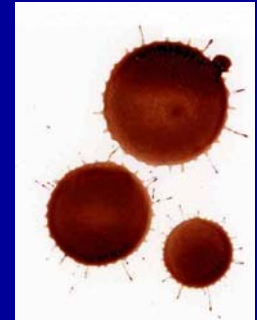
- Comingling

- Handling during trial (juries, attorneys, etc.)

- General condition of the evidence

- Environment

- Heat, cold, humidity, mold, floods etc.



Evidence may be
amenable for
testing...now what?



Technology advances

- What are the capabilities of a particular technology?!
 - Quant kits, amp kits and detection platforms
 - Mitochondrial testing
 - Y-STR testing
- Remember: You can always call the lab if you have a question about a specific technology

How do I know when the Lab began using a specific technology?

- Commercially available vs. available to do testing in the Commonwealth
 - Before implementing new techniques they **MUST** be thoroughly evaluated for use on casework samples
 - Precision
 - Sensitivity
 - Reproducibility
 - Contamination Studies
 - Mixture Studies

How do I know when the Lab began using a specific technology?

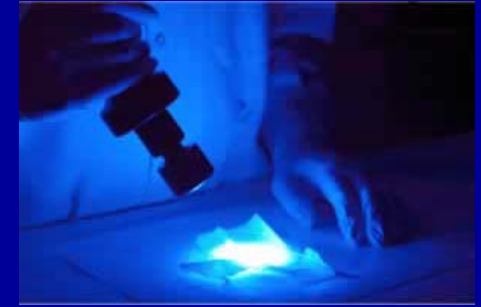
Kit	Date Commercially Available	*Date MSPCL Implemented This Technology
AmpF/STR®Profiler Plus™	December 1997	January 1999
AmpF/STR®COfiler™	May 1998	January 1999
AmpF/STR®Identifiler™	July 2001	June 2004 
Y-Plex™6	January 2001	December 2003
Yfiler™	Fall 2004	May 2006 

*This date denotes the date that the first protocol version using this technology was approved for use at MSPCL.

Additional Technology Considerations

- Cellmark and other private labs
- FBI lab
- Expanded Core Kits
- Other technologies

Forensic Analysis



– Will the testing be exhaustive?

- Remember: Currently the laboratories in the Commonwealth **CANNOT** perform analysis in 278A cases if the testing will exhaust all sample
 - What if it MIGHT become exhaustive?



Forensic Analysis

- Send-out considerations-choosing a vendor lab
 - Forensic services provider accredited by an accreditation body that is a signatory to the International Laboratory Accreditation Cooperation Mutual Recognition Agreement
 - <http://ilac.org/signatory-search/>
 - CODIS considerations

Forensic Analysis

- Send-out considerations
 - Vendor lab submission requirements
 - Request submission guidelines
 - Item(s) does not necessarily have to be submitted to the MSP lab
 - We can offer you guidance for properly packaging and shipping
 - If preferred, we can facilitate a send-out for you

Forensic Analysis

- If item is submitted to MSP lab:
 - Inventory first
 - Submit only what needs to be sent out
 - Evidence viewing
 - Permitted for bulk evidence viewing only
 - **Note: Observation of send-out preparation is NOT permitted per MSPCL policy**
 - Effort to ensure the integrity of the evidence by minimizing contamination risks
 - Photos and documentation are available to the Commonwealth and Counsel through normal discovery channels
- Vendor lab observation requirements

Forensic Analysis

- Send-out considerations
 - Shipping address
 - Billing information
 - Account number
 - Report to
 - Permission to consume
 - Instructions for return of evidence
 - Any other special requests

Please note: Timely completion of the send-out is dependent upon receipt of ALL required information prior to shipping!



Scientific Perspective Summary

- Many factors affect whether evidence may be amenable to current testing technologies
- The Lab will always evaluate the evidence to determine if it has the potential to yield forensically relevant and interpretable results
- Evidence preservation and integrity is and has always been the Lab's utmost concern

Legal Factors

- Future Policy and Procedure Implementation
- Promulgating CMRs
- FOIA Requests

278A Laboratory Point of Contact

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