

# North Carolina State Bureau of Investigation Laboratory

121 East Tryon Road Raleigh, NC 27603

## External DNA Audit Report on Compliance with the FBI Director's Quality Assurance Standards for Forensic DNA Testing Laboratories

Conducted on 11/29/10 - 12/01/10

Lonnie Ginsberg	NFSTC Lead Auditor
Leslia Davis	NFSTC Technical Auditor
Abby Schwaderer	NFSTC Technical Auditor
Stephanie Winter Sermeno	NFSTC Technical Auditor
Sylvia Thurmond	NFSTC Technical Auditor
Cara Lupino	NFSTC Technical Auditor



This audit was performed under Cooperative Agreement #2007-MU-BX-K008  
with the  
National Institute of Justice  
and the  
National Forensic Science Technology Center

**"This document is to be used for pre-decisional purposes only by the  
laboratory audited and NDIS in determining compliance with these  
standards".**

National Forensic Science Technology Center Inc  
7881 114th Avenue N.  
Largo FL 33773  
Tel (727) 549-6067 Fax (727) 549-6070

# THE FBI QUALITY ASSURANCE STANDARDS

## AUDIT FOR

### FORENSIC DNA TESTING LABORATORIES

IN ACCORDANCE WITH

THE QUALITY ASSURANCE STANDARDS

FOR

FORENSIC DNA TESTING LABORATORIES

EFFECTIVE JULY 1, 2009

An Audit of: North Carolina State Bureau of Investigation

Dates of Audit: November 29 - December 01, 2010

Auditor(s): Lonnie Ginsberg

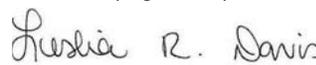
(Name)



(Signature)

Leslia Davis

(Name)



(Signature)

Abby Schwaderer

(Name)



(Signature)

Stephanie Sermeno

(Name)



(Signature)

Sylvia Thurmond

(Name)



(Signature)

Cara Lupino

(Name)



(Signature)

Last Updated: July, 21, 2010

## Table of Contents

CHECKLIST OF GENERAL LABORATORY INFORMATION	04
STANDARD 3 - QUALITY ASSURANCE PROGRAM	05
STANDARD 4 - ORGANIZATION AND MANAGEMENT	08
STANDARD 5 - PERSONNEL	09
STANDARD 6 - FACILITIES	21
STANDARD 7 - EVIDENCE CONTROL	23
STANDARD 8 - VALIDATION	25
STANDARD 9 - ANALYTICAL PROCEDURES	29
STANDARD 10 - EQUIPMENT CALIBRATION AND MAINTENANCE	34
STANDARD 11 - REPORTS	36
STANDARD 12 - REVIEW	38
STANDARD 13 - PROFICIENCY TESTING	41
STANDARD 14 - CORRECTIVE ACTION	44
STANDARD 15 - AUDITS	45
STANDARD 16 - SAFETY	46
STANDARD 17 -OUTSOURCING	47
Appendix A: Findings and Responses	50
Appendix C: Auditor Self-Certification	52
Appendix D: Personnel Qualifications	57
Appendix E: Approved Validations	62

### Checklist of General Laboratory Information

1. Name of Laboratory: North Carolina State Bureau of Investigation Laboratory
2. Federal / State / Regional / County / Local / Other: \_\_\_\_\_  
Laboratory (Choose one)
3. Approximate Population Size Served: 9 million
4. Uses a Contract Laboratory:                      Yes     No   
Name of Contract Laboratory(ies): \_\_\_\_\_
5. NDIS Participant:                                      Yes     No
6. Applying for NDIS Participation: Yes  No  NA     (Choose one)
7. Technologies Used: (Choose those that apply)  
 STRs  
 YSTRs  
 MtDNA  
 Other: \_\_\_\_\_
8. Number of staff:  
DNA analysts: 23  
DNA trainees: 0  
DNA technicians: 0  
Laboratory support personnel: 0  
DNA technical leader: A. Chris Parker  
On site:                      Yes     No   
Casework CODIS administrator: Amanda Overton
9. Last audit conducted on: October 26-28, 2010  
External Audit  Internal Audit  (Choose one)
10. Audit Document Discussion Used (Revision Date):                      July 2009

### Standard 3. Quality Assurance Program

	Yes	No	N/A
<b>3.1</b> For the DNA laboratory's quality assurance program:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Does the DNA laboratory have an established and maintained documented quality system that is appropriate to the testing activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Is the quality system equivalent to or more stringent than what is required by these Standards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

	Yes	No	N/A
<b>3.1.1</b> Is the quality system documented in a manual that includes or references the following elements:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.1</b> Goals and objectives?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.2</b> Organization and management?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.3</b> Personnel?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.4</b> Facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.5</b> Evidence control?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.6</b> Validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.7</b> Analytical procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.8</b> Equipment calibration and maintenance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.9</b> Reports?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.10</b> Review?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.11</b> Proficiency testing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>3.1.1.12</b> Corrective action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.1.1.13 Audits?

3.1.1.14 Safety?

3.1.1.15 Outsourcing?

[Click Here For Discussion](#)

**Comment**

3.2 Does the laboratory maintain and follow a procedure regarding document retention that specifically addresses:

**Yes**   **No**   **N/A**

a. Proficiency tests?

Yes  No

b. Corrective action?

Yes  No

c. Audits?

Yes  No

d. Training records?

Yes  No

e. Continuing education?

Yes  No

f. Case files?

Yes  No

g. Court testimony monitoring?

Yes  No

[Click Here For Discussion](#)

**Comment**

**3.3** Is the quality system as applicable to DNA reviewed annually (calendar year) independent of the audit required by Standard 15, and is the review performed under the direction and documented approval of the technical leader?

Yes	No	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

### Standard 4. Organization and Management

	Yes	No	N/A
<b>4.1</b> Does the laboratory have:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.1.1</b> A managerial staff with the authority and resources needed to discharge its duties and meet the requirements of the Standards in this document?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.1.2</b> A technical leader who is accountable for the technical operations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Have at least one technical leader in a multi-laboratory system?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>4.1.3</b> A casework CODIS administrator who is accountable for CODIS on-site at each individual laboratory facility using CODIS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.1.4</b> At least two full-time employees who are qualified DNA analysts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.1.5</b> Documentation that specifies the responsibility, authority, and interrelation of all personnel who manage, perform, or verify work affecting the validity of the DNA analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>4.1.6</b> A documented contingency plan that is approved by laboratory management if the technical leader position is vacated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

Standard 4.1.2.a was rated N/A as the laboratory is not part of a multi-laboratory system.

## Standard 5. Personnel

- |  | Yes                                 | No                       | N/A                      |
|--|-------------------------------------|--------------------------|--------------------------|
| 5.1 Do laboratory personnel have the education, training, and experience commensurate with the examination and testimony provided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

### Comment

- |  | Yes                                 | No                       | N/A                      |
|--|-------------------------------------|--------------------------|--------------------------|
| 5.1.1 Does the laboratory have written job descriptions for all personnel to include responsibilities, duties, and skills? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

### Comment

- |   | Yes                                 | No                       | N/A                      |
|---|-------------------------------------|--------------------------|--------------------------|
| 5.1.2 Does the laboratory have a documented training program for qualifying all analyst(s) and technician(s)?       | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5.1.2.1 Does the training program contain at a minimum the following components:                                    |                                     |                          |                          |
| a. A training manual that covers all applicable DNA analytical procedures that the analyst/technician will perform? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Practical exercises that include the examination of a range of samples routinely encountered in casework?        | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- 5.1.2.2** Does the laboratory’s training program teach and assess the technical skills and knowledge required to perform DNA analysis and include, at a minimum, the following?

  - 5.1.2.2.1** Does the training program require the documentation of the successful completion of a competency test(s)?
  - 5.1.2.2.2** For an analyst or technician with previous forensic experience:

    - a. Did the technical leader assess and document the adequacy of the previous training of the analyst and/or technician?
    - b. Did the analyst and/or technician complete a modified training program that was assessed and documented by the technical leader?
  - 5.1.2.2.3** Prior to participating in independent casework did all analysts and technicians, regardless of previous experience, successfully complete a competency test(s) covering the routine DNA methodologies to be used?

[Click Here For Discussion](#)

**Comment**

Standards 5.1.2.2.2.a and 5.1.2.2.2.b were rated N/A as no analysts or technicians have been hired with previous forensic experience since the last external audit.

- |                |  | Yes                                 | No                       | N/A                      |
|----------------|--|-------------------------------------|--------------------------|--------------------------|
| <b>5.1.3</b>   | Does the laboratory have a documented program to ensure that technical qualifications are maintained through continuing education?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>5.1.3.1</b> | Does the technical leader, casework CODIS administrator, and each analyst have documented attendance at seminars, courses, professional meetings, or documented training sessions/classes that consist of: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

a. Subject areas relevant to the developments in DNA typing?

Yes  No

b. Cumulative minimum of eight hours per calendar year?

Yes  No

**5.1.3.1.1** For continuing education conducted internally, does the laboratory's retained documentation include the following:

a. Title of the program? Yes  No

b. A record of the presentation? Yes  No

c. Date of the training? Yes  No

d. Attendance list? Yes  No

e. Curriculum vitae of the presenter(s)? Yes  No

**5.1.3.1.2** For continuing education conducted externally, does the laboratory's retained documentation include one or more of the following:

a. Certificate of attendance?

b. Program agenda/syllabus?

c. Travel documentation?

**5.1.3.1.3** For continuing education that is based on multimedia or Internet delivery:

a. Was the training subject to the review of, and approved by, the technical leader?  
Yes  No

b. Was the time required to complete the program formally recorded in the laboratory's retained document?  
Yes  No

c. Was the completion submitted to the technical leader for review and approval?  
Yes  No

**5.1.3.2** For the review of scientific literature:

- a. Does the laboratory have a program, approved by the technical leader, for the annual review of scientific literature that documents the ongoing reading of scientific literature?
- b. Does the laboratory maintain or have physical or electronic access to a collection of current books, reviewed journals, or other literature applicable to DNA analysis?

[Click Here For Discussion](#)

**Comment**

Standard 5.1.3.1.1 was rated N/A as no internal continuing education was conducted since the last external audit.

Standard 5.1.3.1.3 was rated N/A as no continuing education was conducted via internet or multimedia since the last external audit.

- |              |   | Yes                                 | No                       | N/A                      |
|--------------|---|-------------------------------------|--------------------------|--------------------------|
| <b>5.1.4</b> | Does the laboratory maintain records on the relevant qualifications, training, skills, and experience of all technical personnel? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

- |              |  | Yes                                 | No                       | N/A                      |
|--------------|--|-------------------------------------|--------------------------|--------------------------|
| <b>5.2</b>   | Does the technical leader satisfy the requirements for degree/education, experience, and duties listed in Standards 5.2.1 through 5.2.4.1? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>5.2.1</b> | Does the technical leader of the laboratory meet or exceed the following degree/educational requirements?                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|              | a. A master's degree in a biology-, chemistry-, or forensic science-related area or have a waiver as stated in Standard 5.2.1.4?           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

b. Twelve semester hours or equivalent credit hours including a combination of graduate and undergraduate course work or classes covering the following subject areas:

- 1. Biochemistry? Yes  No
- 2. Genetics? Yes  No
- 3. Molecular biology? Yes  No
- 4. Statistics or population genetics? Yes  No

**5.2.1.1** Of the 12 semester or equivalent credit hours required, do they include at least one graduate-level course registering 3 or more semester or equivalent credit hours?

**5.2.1.2** Do each of the specific subject areas listed in Standard 5.2.1 constitute an integral component of any coursework used to demonstrate compliance with this Standard?

**5.2.1.3** For individuals who have completed coursework with titles other than those listed in Standard 5.2.1, have they successfully demonstrated compliance with this Standard through a combination of pertinent materials such as a transcript, syllabus, letter from the instructor, or other documentation that supports the course content?

[Click Here For Discussion](#)

**Comment**

**5.2.1.4** If the degree requirements of Standard 5.2.1 are not met, does the technical leader possess a waiver from the American Society of Crime Laboratory Directors (ASCLD)?

Yes	No	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

Standard 5.2.1.4 was rated N/A as the Technical Leader does not possess a waiver from ASCLD.

**5.2.2** Technical leader minimum experience requirements:

- a. Does the technical leader have three years of forensic DNA laboratory experience obtained at a laboratory where forensic DNA testing was conducted for the identification and evaluation of biological evidence in criminal matters?
- b. Does any technical leader, appointed or hired on or after July 1, 2009, have a minimum of three years human-DNA experience (current or previous) as a qualified analyst on forensic samples?
- c. Has the technical leader successfully completed, or will successfully complete within one year of appointment, the FBI-sponsored auditor training?

Yes	No	N/A
-----	----	-----

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

	Yes	No	N/A
<b>5.2.3</b> Does the technical leader of the laboratory have responsibility for the following:			
<b>5.2.3.1</b> Does the technical leader have the following general duties and authority:			
<b>5.2.3.1.1</b> Oversee the technical operations of the laboratory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.2.3.1.2</b> Authority to initiate, suspend, and resume DNA analytical operations for the laboratory or an individual?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.2.3.2</b> Does the technical leader perform the following specific responsibilities:			
<b>5.2.3.2.1</b> Evaluate and document approval of all validations and methods used by the laboratory and propose new or modified analytical procedures to be used by analysts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.2.3.2.2</b> Review and document the review of the academic transcripts and training records for newly qualified analysts and approve their qualifications prior to their conducting independent casework analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.2.3.2.3</b> Approve the technical specifications for outsourcing agreements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.2.3.2.4</b> Review and document the review of internal and external DNA audit documents and, if applicable, approve corrective action(s).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.2.3.2.5</b> Review annually the procedures of the laboratory and document such review?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.2.3.2.6</b> Review and approve the training, quality assurance, and proficiency testing programs in the laboratory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Comment**

[Click Here For Discussion](#)

	Yes	No	N/A
<b>5.2.4</b> Technical leader accessibility:			
a. Is the technical leader accessible to the laboratory to provide on-site, telephonic, or electronic consultation as needed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. If the technical leader oversees a system of separate laboratories, has the technical leader conducted semiannual on-site visits of each of the laboratories?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>5.2.4.1</b> Is the technical leader a full-time employee of the laboratory or laboratory system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.2.4.1.1</b> a. If the technical leader position of the laboratory had been vacant since the last audit, was there a qualified individual immediately appointed as technical leader?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. If a qualified individual was not available/ appointed, did the laboratory immediately contact the FBI and submit its contingency plan within 14 days of the vacancy for the FBI's approval?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Was all new casework suspended until the plan was approved by the FBI?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>5.2.5</b> Did each technical leader appointed or hired on or after July 1, 2009, document a review of the following:			
<b>5.2.5.1</b> Validation studies and methodologies currently used by the laboratory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.2.5.2</b> Educational qualifications and training records of currently qualified analysts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

Standard 5.2.4.b was rated N/A as the Technical Leader does not oversee a system of separate laboratories.

Standards 5.2.4.1.1.a, 5.2.4.1.1.b, and 5.2.4.1.1.c were rated N/A as the Technical Leader position has not been vacant since the last external audit.

	Yes	No	N/A
<b>5.3</b> Is the casework CODIS administrator an employee of the laboratory and does he or she meet the following qualifications?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.3.1</b> Education:			
Does the casework CODIS administrator meet the minimum education requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Does the casework CODIS administrator meet the minimum education requirements as defined in Standard 5.4 or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Was the casework CODIS administrator appointed or hired prior to July 1, 2009, with supporting documentation from the FBI?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>5.3.2</b> Experience:			
Does the casework CODIS administrator meet the experience requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Is a current or previously qualified casework DNA analyst with documented mixture interpretation training, or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Was the casework CODIS administrator appointed or hired prior to July 1, 2009 with documented mixture-interpretation training and completion of FBI-sponsored CODIS training?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

Standards 5.3.1.b and 5.3.2.b are marked N/A since the casework CODIS administrator meets the educational requirements defined in Standard 5.4 and is a qualified casework analyst with documented mixture interpretation training.

	Yes	No	N/A
<b>5.3.3</b> Has the casework CODIS administrator:			
a. Successfully completed the FBI auditor training within one year of appointment, if not previously attended such training?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Participated in the FBI sponsored CODIS software training within six months of appointment, if not previously attended such training?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.3.4</b> Is the casework CODIS administrator responsible for the following:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.3.4.1</b> Administering the laboratory's local CODIS network?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.3.4.2</b> Scheduling and documenting the CODIS computer training of casework analysts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.3.4.3</b> Assuring that the security of data stored in CODIS is in accordance with state and/or federal law and NDIS operational procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.3.4.4</b> Assuring that the quality of data stored in CODIS is in accordance with state and/or federal law and NDIS operational procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.3.4.5</b> Assuring that matches are dispositioned in accordance with NDIS operational procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.3.5</b> Is the casework CODIS administrator authorized to terminate an analyst's or the laboratory's participation in CODIS until the reliability and security of the computer data can be assured if an issue with the data is identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.3.6</b> If the casework CODIS administrator position has been unoccupied since the last audit, has the laboratory refrained from uploading new DNA profiles to NDIS during the vacancy?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

Standard 5.3.6 was rated N/A as the CODIS Administrator position has not been unoccupied since the last external audit.



		<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>5.4.2</b>	Does each analyst have six months of documented, forensic human-DNA laboratory experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.4.2.1</b>	Prior to independent work using DNA technology, has each analyst completed the analysis of a range of samples routinely encountered in forensic casework?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5.4.2.2</b>	Has each analyst successfully completed a competency test before beginning independent DNA analysis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

		<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>5.5</b>	Has each technician successfully completed each of the following:			
<b>5.5.1</b>	Documented training specific to his or her job function(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>5.5.2</b>	A competency test before participating in DNA analysis on evidence?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>5.6</b>	Do all laboratory technical support personnel have documented training specific to their job function(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

Standards 5.5.1, 5.5.2 and 5.6 were rated N/A as the laboratory does not utilize technicians or technical support personnel.

### Standard 6. Facilities

		<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>6.1</b>	Is the laboratory designed to ensure the integrity of the analyses and the evidence?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6.1.1</b>	Is access to the laboratory controlled and limited in a manner that prevents access by unauthorized personnel?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a.	Do all exterior entrance/exit points have security control?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Is the distribution of all keys, combinations, and other security devices, documented and limited to the personnel designated by laboratory management?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

		<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>6.1.2</b>	Except as provided in Standard 6.1.4, are techniques performed prior to polymerase chain reaction (PCR) amplification-- to include evidence examinations, DNA extractions, and PCR setup-- conducted at separate times or in separate spaces from one another?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6.1.3</b>	Except as provided in Standard 6.1.4, is amplified DNA product-- including real-time PCR-- generated, processed, and maintained in a room(s) separate from the evidence examination, DNA extractions, and PCR-setup areas?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a.	Are the doors between rooms containing amplified DNA and other areas closed at all times except for passage?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**6.1.4** If a robotic workstation is used to carry out DNA extraction, quantification, PCR setup, and/or amplification in a single room, has the laboratory validated the analytical process in accordance with Standard 8?                 

a. If the robot performs analysis through amplification, is the robot housed in a separate room from that used for initial evidence examinations?                 

[Click Here For Discussion](#)

**Comment**

Standards 6.1.4 and 6.1.4.a were rated N/A as the laboratory does not use robotics.

**6.1.5** Does the laboratory have and follow written procedures for cleaning and decontaminating facilities and equipment?      **Yes**      **No**      **N/A**  
           

[Click Here For Discussion](#)

**Comment**

## STANDARD 7 Evidence

		Yes	No	N/A
7.1	Does the laboratory have and follow a documented evidence control system to ensure the integrity of physical evidence?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.1.1	For evidence and sample identification:			
a.	Is all evidence marked with a unique identifier on the evidence package?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Does the laboratory clearly define what constitutes evidence and what constitutes work product?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Does the laboratory have and follow a method to distinguish each sample throughout processing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

### Comment

		Yes	No	N/A
7.1.2	Does the laboratory document and maintain a chain of custody, in hard or electronic format, for all evidence, to include the following:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a.	Signature or initials or the electronic equivalent of each individual receiving or transferring the evidence?			
	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
b.	The corresponding date for each transfer?			
	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
c.	Evidentiary item(s) transferred?			
	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

[Click Here For Discussion](#)

**Comment**

- |  | <b>Yes</b>                          | <b>No</b>                | <b>N/A</b>               |
|--|-------------------------------------|--------------------------|--------------------------|
| <b>7.1.3</b> Does the laboratory have and follow documented procedures designed to minimize loss, contamination, and/or deleterious change of evidence and work product in progress? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>7.1.4</b> Does the laboratory have secure, controlled-access areas for evidence storage and work product in progress?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

- |   | <b>Yes</b>                          | <b>No</b>                | <b>N/A</b>               |
|---|-------------------------------------|--------------------------|--------------------------|
| <b>7.2</b> Does the laboratory retain or return a portion of the evidence sample or extract where possible? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

- |  |                                     |                          |                          |
|--|-------------------------------------|--------------------------|--------------------------|
|  | <b>Yes</b>                          | <b>No</b>                | <b>N/A</b>               |
| <b>7.3</b> Does the laboratory have and follow documented policies for the disposition of evidence and sample consumption? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

**Standard 8. Validation**

- |  |                                     |                          |                          |
|--|-------------------------------------|--------------------------|--------------------------|
|  | <b>Yes</b>                          | <b>No</b>                | <b>N/A</b>               |
| <b>8.1</b> Does the laboratory use validated methods for DNA analyses? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

- |   |                                     |                          |                          |
|---|-------------------------------------|--------------------------|--------------------------|
|   | <b>Yes</b>                          | <b>No</b>                | <b>N/A</b>               |
| <b>8.2</b> Have developmental validation studies preceded the use of a novel methodology for forensic DNA analysis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

		Yes	No	N/A
<b>8.2.1</b>	Have developmental validation studies been performed and documented to include, where applicable:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a.	Characterization of the genetic marker?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
b.	Species specificity?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
c.	Sensitivity studies?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
d.	Stability studies?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
e.	Reproducibility?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
f.	Case-type samples?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
g.	Population studies?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
h.	Mixture studies?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
i.	Precision and accuracy studies?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
j.	PCR-based studies to include?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
	1. Reaction conditions?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	2. Assessment of differential and preferential amplification?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	3. Effects of multiplexing?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	4. Assessment of appropriate controls?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	5. Product detection studies?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>8.2.2</b>	Are peer-reviewed publication(s) of the underlying scientific principle(s) of a technology available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

		Yes	No	N/A
<b>8.3</b>	Except as provided in Standard 8.3.1.1, have internal validation of all manual and robotic methodologies been conducted by each laboratory and reviewed and approved by the laboratory's technical leader prior to use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8.3.1</b>	For Internal Validation Studies:			
	a. Have internal validation studies been documented and summarized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Have all internal validation studies conducted on or after July 1, 2009, included, as applicable:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	1. Known and non probative evidence samples or mock evidence samples?			
	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>			
	2. Reproducibility and precision?			
	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>			
	3. Sensitivity and stochastic studies?			
	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>			
	4. Mixture studies?			
	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>			
	5. Contamination assessment?			
	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>			
<b>8.3.1.1</b>	For multilaboratory systems:			
	a. Has each laboratory in a multi-laboratory system completed, documented, and maintained applicable site-specific precision, sensitivity, and contamination assessment studies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b. Are the summaries of all applicable validation data available at each site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>8.3.2</b>	Have quality assurance parameters and interpretation guidelines, including, as applicable, guidelines for mixture interpretation, been defined pursuant to internal validation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>8.3.3</b>	If a laboratory has had a change in detection platform or test kit, have internal validation studies been performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>8.4</b>	Has the analyst or examination team successfully completed a competency test using the DNA analysis procedure prior to its incorporation into casework applications?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

Standards 8.3.1.b and all subcategories are rated N/A as the laboratory has not conducted internal validation studies on or after July 1, 2009.

Standards 8.3.1.1.(a and b) were rated N/A as the laboratory is not part of a multi laboratory system.

Standard 8.3.3 was rated N/A as the laboratory has not had a change in detection platform or test kit since the last external audit.

		Yes	No	N/A
<b>8.5</b>	Have modified procedures been evaluated by comparison with the original procedures using similar DNA samples prior to their incorporation into casework applications?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>8.6</b>	Has the laboratory evaluated each additional or modified critical instrument by conducting a performance check prior to its use in casework?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>8.7</b>	Has the laboratory evaluated software upgrades by conducting a performance check prior to use in casework?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a.	Has new software or significant software modifications been documented and subjected to validation testing prior to use in casework?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

Standard 8.5 was rated N/A as the laboratory has not modified their procedures since their last external audit.

Standard 8.6 was rated N/A as the laboratory has not had incorporated or modified any additional critical instruments since their last external audit.

Standards 8.7 and 8.7.a were rated N/A as the laboratory has not evaluated any software upgrades since their last external audit.

### Standard 9. Analytical Procedures

		Yes	No	N/A
<b>9.1</b>	Does the laboratory have and follow written analytical procedures approved by the technical leader?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. Are the laboratory's standard operating procedures reviewed annually by the technical leader, and is this review documented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9.1.1</b>	Does the laboratory have a documented standard operating procedure for each analytical method used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. Do the analytical procedures specify reagents, sample preparation, extraction methods, equipment, and controls that are standard for DNA analysis and data interpretation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Does the laboratory have a procedure for the differential extraction of stains that contain sperm?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

		Yes	No	N/A
<b>9.2</b>	Does the laboratory use reagents that are suitable for the methods employed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9.2.1</b>	Does the laboratory have written procedures for documenting commercial reagents and for the formulation of in-house reagents?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9.2.2</b>	Are commercial reagents labeled with:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. The identity of the reagent? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
	b. The expiration date as provided by the manufacturer or as determined by the laboratory? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
<b>9.2.3</b>	Are in-house reagents labeled with:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. The identity of the reagent?

Yes  No

b. The date of the preparation or expiration or both?

Yes  No

c. The identity of the individual preparing the reagent?

Yes  No

**9.3** Critical reagents shall include, but are not limited to, the reagents listed in Standards 9.3.1 and 9.3.2.

a. Has the laboratory identified critical reagents?

b. Has the laboratory evaluated critical reagents prior to use in casework?

**9.3.1** Has the laboratory identified and evaluated the following:

a. Test kits or systems for performing quantitative PCR?

Yes  No  N/A

b. Test kits or systems for performing genetic typing?

Yes  No  N/A

**9.3.2** Has the laboratory identified and evaluated the following:

a. Thermostable DNA polymerase (if not tested as test kit components under Standard 9.3.1)?

Yes  No  N/A

b. Primer sets (if not tested as test kit components under Standard 9.3.1)?

Yes  No  N/A

c. Allelic ladders used for genetic analysis (if not tested as test-kit components under Standard 9.3.1)?

Yes  No  N/A

[Click Here For Discussion](#)

**Comment**

Standards 9.3.2, 9.3.2.a, 9.3.2.b, and 9.3.2.c were rated N/A as the laboratory tests these items as part of the test-kit components.

- |   | Yes                                 | No                       | N/A                      |
|---|-------------------------------------|--------------------------|--------------------------|
| <b>9.4</b> Does the laboratory quantify the amount of human DNA in forensic samples prior to nuclear DNA amplification? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

- |  | Yes                                 | No                       | N/A                      |
|--|-------------------------------------|--------------------------|--------------------------|
| <b>9.5</b> Does the laboratory monitor the analytical procedures using appropriate controls and standards?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>9.5.1</b> Are standards used during quantification procedures?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>9.5.2</b> For positive and negative amplification controls:   |                                     |                          |                          |
| a. Are the positive and negative amplification controls associated with the forensic samples being typed amplified concurrently with the samples at all loci using the same primers as the forensic samples? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Are the positive and negative amplification controls associated with the forensic samples being typed?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>9.5.3</b> Are reagent blank controls associated with each extraction set being analyzed as follows:   |                                     |                          |                          |
| <b>9.5.3.1</b> Extracted concurrently?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>9.5.3.2</b> Are the reagent blanks amplified using:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| a. The same primers as the forensic sample(s)?   |                                     |                          |                          |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>  |                                     |                          |                          |
| b. The same instrument model as the forensic sample(s)?  |                                     |                          |                          |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>  |                                     |                          |                          |
| c. The same concentration conditions as required by the forensic sample(s) containing the least amount of DNA?   |                                     |                          |                          |
| Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>  |                                     |                          |                          |
| <b>9.5.3.3</b> Are the reagent blanks typed using:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- a. The same instrument model as the forensic sample(s)?  
 Yes  No
- b. The same injection conditions as the forensic sample(s)?  
 Yes  No
- c. The most sensitive volume conditions of the forensic extraction set?  
 Yes  No

**9.5.4** Does the laboratory use allelic ladders and internal size markers for VNTR sequence PCR- based systems?

[Click Here For Discussion](#)

**Comment**

**9.5.5** Does the laboratory check its DNA procedures either annually or whenever substantial changes are made to a procedure against an appropriate and available NIST standard reference material (SRM) or standard traceable to a NIST standard? **Yes**  **No**  **N/A**

[Click Here For Discussion](#)

**Comment**

		<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>9.6</b>	Does the laboratory have and follow written guidelines for the interpretation of data?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9.6.1</b>	Does the laboratory verify that all control results meet the laboratory's interpretation guidelines for all reported results?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9.6.2</b>	Has the 1996 National Research Council report and/or a court-directed method been used for the statistical interpretation of a DNA profile for a given population and/or hypothesis or relatedness, and are these calculations derived from an established population database(s) appropriate for the calculation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9.6.3</b>	Does the laboratory have and follow specific documented statistical interpretation guidelines if genetic analyses that are not addressed by Standard 9.6.2 are being performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>9.6.4</b>	Does the laboratory have and follow documented procedures for mixture interpretation to include the following:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. Major and minor contributors?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	b. Inclusions and exclusions?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
	c. Policies for reporting results and statistics?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

[Click Here For Discussion](#)

**Comment**

Standard 9.6.3 is marked N/A since the laboratory does not use statistical calculations other than those outlined in the 1996 NRC report.

- |  | Yes                                 | No                       | N/A                      |
|--|-------------------------------------|--------------------------|--------------------------|
| 9.7 Does the laboratory have and follow a documented policy for detecting and controlling contamination? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

**Standard 10. Equipment Calibration and Maintenance**

- |  | Yes                                 | No                       | N/A                                 |
|--|-------------------------------------|--------------------------|-------------------------------------|
| 10.1 Does the laboratory use equipment that is suitable for the methods employed?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10.2 Does the laboratory have and follow a documented program for conducting performance checks and calibrating equipment and instruments? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10.2.1 At a minimum, are the following critical instruments or equipment performance-checked at least annually:                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10.2.1.1 A thermometer that is traceable to national or international standard(s) and is used for conducting performance checks?           | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10.2.1.2 Balance/scale?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10.2.1.3 Thermal cycler temperature-verification system?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10.2.1.4 Thermal cycler including quantitative-PCR?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10.2.1.5 Electrophoresis detection systems?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10.2.1.6 Robotic systems?  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10.2.1.7 Genetic analyzers?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10.2.1.8 Mechanical pipettes?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10.3 Does the laboratory have a schedule and follow a documented program to ensure that instruments and equipment are maintained properly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |

- a. Has documentation been retained for maintenance, service, and/or calibration?
- 10.4** Does the laboratory performance check new critical instruments and equipment, or critical instruments and equipment that have undergone repair, service or calibration, before their use in casework analysis?
- 10.4.1** At a minimum, are the following critical instruments or equipment performance-checked following repair, service, or calibration:
  - 10.4.1.1** Electrophoresis detection systems?
  - 10.4.1.2** Robotic systems?
  - 10.4.1.3** Genetic analyzers?
  - 10.4.1.4** Thermal cycler including quantative-PCR?

**Comment**

[Click Here For Discussion](#)

**Standards 10.2.1.5 and 10.4.1.1 were rated N/A as the laboratory uses genetic analyzers for its analysis and does not use any other electrophoresis detection systems.**

**Standards 10.2.1.6 and 10.4.1.2 were rated N/A as the laboratory does not utilize robotic systems.**

### Standard 11 Reports

	Yes	No	N/A
11.1 a. Does the laboratory have and follow written procedures for taking and maintaining case notes to support the conclusions drawn in laboratory reports?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the laboratory maintain all analytical documentation generated by analysts related to case analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the laboratory retain, in hard copy or electronic format, sufficient documentation for each technical analysis to support the report conclusions such that another qualified individual could interpret and evaluate the data?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

#### Comment

	Yes	No	N/A
11.2 Do the laboratory reports include the following elements:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2.1 Case identifier?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2.2 Description of evidence examined?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2.3 Description of technology?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2.4 Locus or amplification system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2.5 Results and/or conclusions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2.6 A quantitative or qualitative interpretative statement?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2.7 Date issued?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2.8 Disposition of evidence?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.2.9 Signature and title, or equivalent identification, of the person accepting responsibility for the content of the report?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

		<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>11.3</b>	Does the laboratory maintain the confidentiality of reports, case files, DNA records, and databases, except as otherwise provided by applicable state or federal law?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>11.3.1</b>	Does the laboratory have and follow written procedures to ensure the privacy of reports, case files, DNA records, and databases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>11.3.2</b>	Does the laboratory have and follow written procedures for the release of reports, case files, DNA records, and databases in accordance with applicable state or federal law?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>11.3.3</b>	Does the laboratory release personally identifiable information in accordance with applicable state and federal law?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

## Standard 12. Review

	Yes	No	N/A
<b>12.1</b> Does the laboratory conduct and document administrative and technical reviews of all case files and reports to ensure that conclusions and supporting data are reasonable and within the constraints of scientific knowledge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.1.1</b> Are all technical reviews conducted by an individual that is, or has been, a qualified analyst in the methodology being reviewed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

### Comment

	Yes	No	N/A
<b>12.2</b> Does the laboratory document the completion of the technical review of forensic casework, and does it include the following elements:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.2.1</b> A review of all case notes, worksheets, and electronic data (or printed electropherograms/images) that support the conclusions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.2.2</b> A review of all DNA types to verify that they are supported by the raw or analyzed data (electropherograms or images)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.2.3</b> A review of all profiles to verify correct inclusions and exclusions (if applicable) as well as a review of any inconclusive result for compliance with laboratory guidelines?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.2.4</b> A review of all controls, internal lane standards, and allelic ladders to verify that the expected results were obtained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.2.5</b> A review of statistical analysis, if applicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 12.2.6** A review of the final report to verify that the results/conclusions are supported by the data?

  - a. Does the report address each tested item or its probative fraction?
- 12.2.7** For verification of CODIS eligibility. Has there been verification that all profiles entered into CODIS are eligible and have the correct DNA types and correct specimen category?
- 12.2.7.1** Prior to upload to or search of SDIS, have the following been verified for DNA profiles:

  - a. Eligibility for CODIS? Yes  No
  - b. Correct DNA types? Yes  No
  - c. Appropriate specimen category? Yes  No
- 12.2.7.2** Prior to entry of a DNA profile into a searchable category of SDIS, were the following criteria verified by two concordant assessments by a qualified analyst or technical reviewer?

  - a. Eligibility for CODIS? Yes  No
  - b. Correct DNA types? Yes  No
  - c. Appropriate specimen category? Yes  No

[Click Here For Discussion](#)

**Comment**

	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>12.3</b> Does the administrative review include the following elements (any or all of which may be included within the technical-review process):			
<b>12.3.1</b> A review of the case file and final report for clerical errors and for the presence and accuracy of the information specified in Standard 11.2?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.3.2</b> A review of the chain of custody and disposition of evidence?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.3.3</b> A procedure to document the completion of the administrative review?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>12.4</b> Does the laboratory document the elements of a technical and administrative review?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Are case files reviewed and documented according to the laboratory's procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.5</b> Does the laboratory have and follow a documented procedure to address unresolved discrepant conclusions between analysts and reviewers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>12.6</b> Does the laboratory have and follow a documented procedure for the verification and resolution of database matches?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Click Here For Discussion](#)

**Comment**

**12.7** Does the laboratory have and follow a program that documents the annual monitoring of the testimony of each analyst?

**Yes**      **No**      **N/A**




[Click Here For Discussion](#)

**Comment**

### Standard 13. Proficiency Testing

**13.1** Do analysts, technical reviewers, technicians, and other personnel designated by the technical leader undergo semiannual external proficiency testing in each technology performed to the full extent in which they participate in casework?

**Yes**      **No**      **N/A**




[Click Here For Discussion](#)

**Comment**

		Yes	No	N/A
<b>13.1.1</b>	Are individuals using both manual and automated methods proficiency-tested in each, at least once per year, to the full extent in which they participate in casework?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>13.1.2</b>	Have newly qualified individuals entered the external proficiency-testing program within six months of the date of their qualification?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>13.1.3</b>	Has the laboratory defined, documented, and consistently used the date that the proficiency test is performed as the received date, assigned date, submitted date, or due date?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>13.1.4</b>	Except as provided in Standard 13.1.4.1, has each analyst been assigned and completed his or her own external proficiency test?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>13.1.4.1</b> If a team approach is used, have all analysts, technicians, and technical reviewers been proficiency-tested according to Standard 13.1?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>13.1.5</b>	Has the typing of all CODIS core loci or CODIS core sequence ranges been attempted for each technology performed as applicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>13.1.6</b>	Does the laboratory maintain the following records for proficiency tests:			
	<b>13.1.6.1</b> The test-set identifier?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>13.1.6.2</b> Identity of the analyst, and other participants, if applicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>13.1.6.3</b> Date of analysis and completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>13.1.6.4</b> Copies of all data and notes supporting the conclusions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>13.1.6.5</b> The proficiency test results?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>13.1.6.6</b> Any discrepancies noted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>13.1.6.7</b> Corrective actions taken?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>13.1.7</b>	Does the laboratory include, at a minimum, the following criteria for evaluating proficiency test results:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>13.1.7.1</b> Evaluation:			
	a. Are all reported inclusions correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Are all reported exclusions correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- c. Are all reported genotypes and/or phenotypes correct or incorrect according to consensus results or within the laboratory's interpretation guidelines?
  - 13.1.7.2 Are results that are reported as inconclusive or not interpretable consistent with written laboratory guidelines?
  - 13.1.7.2.1 Has the technical leader reviewed any inconclusive result for compliance with laboratory guidelines?
  - 13.1.7.3 Have all discrepancies/errors and subsequent corrective actions been documented?
  - 13.1.7.4 Have all final reports been graded as satisfactory or unsatisfactory?
  - 13.1.7.4.1 When a final report was graded satisfactory, was it shown that no analytical errors were observed for the DNA profile typing data?
    - 13.1.7.4.1.1 If present, were administrative errors and corrective actions documented?
- 13.1.8 Have all proficiency-test participants been informed of their final test results, and has this notification been documented?
- 13.1.9 Has the technical leader been informed of the results of all participants, and has this notification been documented?
- a. If applicable, did the technical leader inform the casework CODIS administrator of all nonadministrative discrepancies that affect the typing results and/or conclusions at the time of discovery?

[Click Here For Discussion](#)

**Comment**

Standard 13.1.4.1 was rated N/A as the laboratory does not utilize a team approach for proficiency testing.

Standard 13.1.7.2 was rated N/A as no proficiency test results have been reported as inconclusive or not interpretable.

Standard 13.1.7.2.1 was rated N/A as no proficiency results have been reported as inconclusive.

Standard 13.1.9.a was rated N/A as there were no non administrative discrepancies.

- |  | Yes                                 | No                       | N/A                      |
|--|-------------------------------------|--------------------------|--------------------------|
| <b>13.2</b> Does the laboratory use an external proficiency-test provider(s) that is in compliance with the current proficiency-testing manufacturing guidelines established by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board or is in compliance with the current International Organization for Standardization? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

**Standard 14. Corrective Action**

- |   | Yes                                     | No                          | N/A                          |
|---|---|-----------------------------|------------------------------|
| <b>14.1</b> For a corrective action plan:   |   |                             |                              |
| a. Has the laboratory established and followed a corrective action plan that addresses discrepancies detected in proficiency tests and casework analysis? | <input checked="" type="checkbox"/>     | <input type="checkbox"/>    | <input type="checkbox"/>     |
| b. Does the corrective action plan, at a minimum, address the following:  | <input checked="" type="checkbox"/>     | <input type="checkbox"/>    | <input type="checkbox"/>     |
| 1. Define what level/type of discrepancies are applicable to this practice?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 2. Identify (when possible) the cause of the discrepancy?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 3. Effect of the discrepancy?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 4. Corrective actions taken?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |
| 5. Preventative measures taken (where applicable) to minimize its reoccurrence?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | N/A <input type="checkbox"/> |

[Click Here For Discussion](#)

Yes  No  N/A

6. Is documentation of all corrective actions maintained in accordance with Standard 3.2?

Yes  No  N/A

**14.2** Prior to implementation do all corrective actions have the documented approval of the technical leader?

[Click Here For Discussion](#)

**Comment**

**Standard 15. Audits**

		<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>15.1</b>	Has the laboratory been audited annually in accordance with the FBI DNA Quality Assurance Standards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has the laboratory maintained documentation that the auditor(s) for this inspection include:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>15.2</b>	Has an external audit been conducted at least once every two years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a. By a qualified auditor? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
	b. By a current or previously qualified analyst in the laboratory's current DNA technologies and platform? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
<b>15.2.1</b>	Has the laboratory maintained audit documentation of those individuals (i.e., casework CODIS administrator, technical leader, and analysts) that have had their education, experience, and training qualifications evaluated and approved during two external audits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>15.2.2</b>	Has the laboratory maintained the documentation for those validations previously evaluated and approved during one external audit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>15.3</b>	For internal audits, has the laboratory maintained documentation that the auditor(s) for this inspection include:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a. A qualified auditor? Yes  No
- b. A current or previously qualified analyst in the laboratory's current DNA technologies and platform? Yes  No
- 15.4** Have the internal and/or external audits performed pursuant to Standard 15.1 been conducted using the FBI DNA Quality Assurance Standards Audit Document in effect at that time?
- 15.5** Have internal and external DNA audit documents and, if applicable, corrective action(s) been submitted to the technical leader for review to ensure that findings, if any, were appropriately addressed?
- 15.5.1** For NDIS-participating laboratories, did the laboratory provide all external audit documentation and laboratory responses to the FBI within 30 days of the laboratory's receipt of the audit documents or report?
- 15.6** Are previous internal and external audit documents retained and available for auditor inspection?

[Click Here For Discussion](#)

**Comment**

**Standard 16. Safety**

- |  | <b>Yes</b>                          | <b>No</b>                | <b>N/A</b>               |
|--|-------------------------------------|--------------------------|--------------------------|
| <b>16.1</b> Does the laboratory have and follow a documented environmental health and safety program that includes, at a minimum, the following: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>16.1.1</b> A bloodborne pathogen and chemical hygiene plan?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>16.1.2</b> Documented training on the bloodborne pathogen and chemical hygiene plan?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>16.2</b> Has the laboratory's environmental health and safety program been reviewed annually?   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| a. Has such review been documented?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

[Click Here For Discussion](#)

**Comment**

**STANDARD 17. Outsourcing**

		<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>17.1</b>	Has the vendor laboratory complied with the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories and the accreditation requirements of federal law?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>17.1.1</b>	Has the NDIS laboratory that outsources DNA sample(s) for entry into CODIS required and maintained the following documentation from the vendor laboratory:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	a. Compliance with the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
	b. Compliance with the accreditation requirements of federal law?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
<b>17.2</b>	Except as provided in Standard 17.2.1, since the laboratory's last external audit, did the NDIS laboratory's technical leader document and maintain the approval of the technical specifications of the outsourcing agreement before it was awarded?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>17.2.1</b>	For a vendor laboratory that is performing forensic DNA analysis for a law enforcement agency or entity other than the NDIS laboratory, was documented approval obtained by the vendor laboratory from the technical leader of the NDIS laboratory, accepting ownership of the DNA data generated, prior to the initiation of analysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>17.3</b>	Did the NDIS laboratory accept, upload to, or search in CODIS, profiles generated by a vendor laboratory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. Prior to the NDIS laboratory's uploading or accepting data to upload or search in CODIS from any vendor laboratory or agency, did the technical leader of the NDIS laboratory document the prior approval of the technical specifications of the outsourcing agreement and/or document the approval of acceptance of ownership of the DNA data?
- 17.4** Does the NDIS laboratory have and follow a procedure to verify the integrity of the data received from a vendor laboratory through the performance of a technical review?
- 17.5** Prior to the upload or search of the data generated by the vendor laboratory to SDIS, did the NDIS laboratory perform a technical review of the vendor laboratory's data?   
  - a. Was the technical review performed by an NDIS laboratory-employed analyst or technical reviewer who is qualified, or was previously qualified, in the technology, platform, and typing amplification test kit used to generate the data and who participates in the NDIS laboratory's proficiency-test program?
- 17.5.1** Do the technical review procedures include, at a minimum, the following elements:
  - 17.5.1.1** A review of all DNA types to verify that they are supported by the raw and/or analyzed data? (electropherograms or images)
  - 17.5.1.2** A review of all associated controls, internal lane standards and allelic ladders to verify that the expected results were obtained?
  - 17.5.1.3** A review of the final report (if provided) to verify:
    - a. That the results/conclusions are supported by the data?   
      - Yes  No
    - b. That each tested item (or its probative fraction) submitted to the vendor laboratory is addressed?   
      - Yes  No
  - 17.5.1.4** Verification of the DNA types, eligibility, and the correct specimen category for entry into CODIS?
- 17.6** For an on site visit:
  - a. Does the NDIS laboratory have and follow a procedure for performing an on-site visit?

- b. Does the procedure include, at a minimum, the following elements?
- 17.6.1 A documented on-site visit prior to the initiation of analysis?   
  - 17.6.1.1 Has the on-site visit been performed by either the technical leader or a designated employee of the NDIS laboratory who is a qualified or previously qualified analyst in the technology, platform, and typing amplification test kit used to generate the DNA data?
- 17.6.2 If the NDIS laboratory's outsourcing agreement extended beyond one year, was an annual on-site visit conducted?   
  - 17.6.2.1 If an on-site visit conducted by another NDIS laboratory was used by the NDIS laboratory, did the technical leader document the review and acceptance of that on-site visit?

[Click Here For Discussion](#)

Standards 17.1. 17.1.1, 17.2, 17.3, 17.4, 17.5 and 17.6 and all their sub-standards are marked N/A as the laboratory does not outsource casework samples.

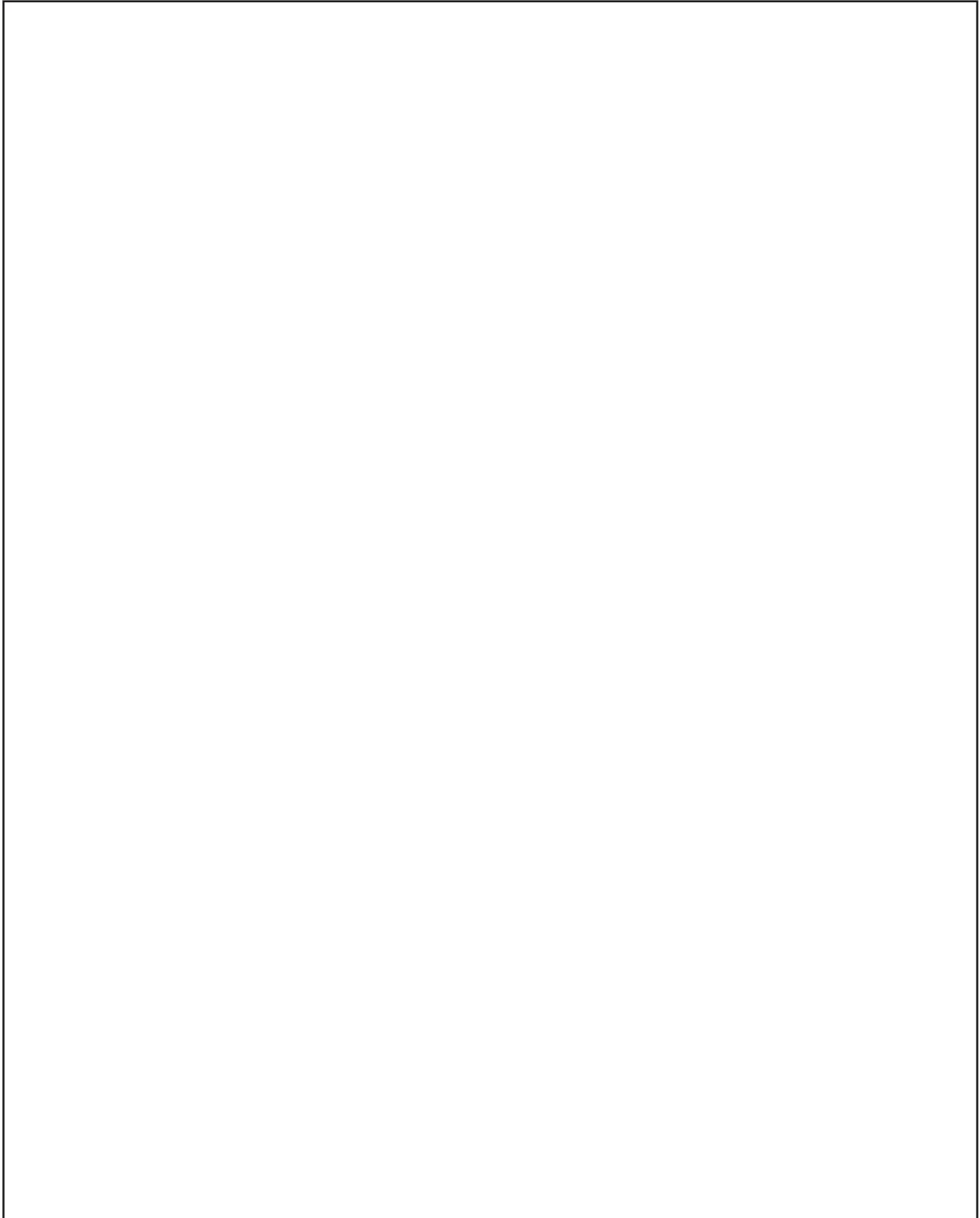
## **Appendix A: Findings and Responses**

### **Findings:**

No findings were associated with this audit.

## **Appendix A:    Findings and Responses**

### **Responses:**



### Appendix C – Auditor Self-Certification for QAS Audits

Section 1 – to be completed by the laboratory being audited:

Laboratory being audited: NCSBI Crime Lab - Raleigh, Casework As of [date] 10/25/10  
Technologies currently in use: STRs, Y-STRs  
Platforms currently in use: Capillary Electrophoresis  
Validations needing to be memorialized: ABI 7500  
Outsourcing agreements in place or in process: LabCorp

The laboratory being audited may request documentation for the information reported in Section 2 below.

Section 2 – to be completed by the auditor who will sign the attestation statement below the questions and (a) for external audits, return to the laboratory prior to the scheduled audit date; or (b) for internal audits, maintain in the laboratory's files.

Auditor Qualifications:  
Name of Auditor: Lonnie Ginsberg  
Auditor's Employer: Alabama Dept. of Forensic Sciences  
Auditor's Title or Position: Lab Director  
Qualified Auditor<sup>2</sup>:  Yes  No (Circle One)  
Year Completed FBI DNA Auditor Class: 2001, 2003(refresher), 2004, 2009  
Current or Previously Qualified DNA Analyst:  Yes  No (Circle One)  
Current or Previously Qualified in Casework, Database Analysis, or Both<sup>3</sup>:  
 Casework  Database  Both (Circle One)  
Technologies Currently or Previously Qualified In (e.g., STR, mtDNA) (Please List):  
STR, Y-STRs  
Platforms Currently or Previously Qualified In (e.g., Gel based/CE) (Please List): CE

I verify that:

I understand the requirements of Standard 15.2<sup>4</sup>; and  
I have no conflicts of interest with the laboratory being audited; and  
The information contained in Section 2 above is correct.

Signed By Janice Date 11/5/10

<sup>2</sup> A Qualified Auditor is a current or previously qualified DNA analyst who has successfully completed the FBI DNA Auditor training course.

<sup>3</sup> If the laboratory being audited performs both casework and database analyses, then the audit team or auditor must be qualified in both casework and database analyses.

<sup>4</sup> Standard 15.2 requires that "at least once every two years, an external audit shall be conducted by an audit team comprised of qualified auditors from a second agency(ies) and having at least one team member who is or has been previously qualified in the laboratory's current DNA technologies and platform."

### Appendix C – Auditor Self-Certification for QAS Audits

Section 1 – to be completed by the laboratory being audited:

Laboratory being audited: NCSBI Crime Lab - Raleigh, Casework As of [date] 10/25/10  
 Technologies currently in use: STRs, Y-STRs  
 Platforms currently in use: Capillary Electrophoresis  
 Validations needing to be memorialized: ABI 7500  
 Outsourcing agreements in place or in process: LabCorp

The laboratory being audited may request documentation for the information reported in Section 2 below.

Section 2 – to be completed by the auditor who will sign the attestation statement below the questions and (a) for external audits, return to the laboratory prior to the scheduled audit date; or (b) for internal audits, maintain in the laboratory's files.

Auditor Qualifications:

Name of Auditor: Leslia R. Davis  
 Auditor's Employer: Mississippi Crime Laboratory  
 Auditor's Title or Position: Forensic Biologist III  
 Qualified Auditor<sup>2</sup>:  Yes  No (Circle One)  
 Year Completed FBI DNA Auditor Class: 2008  
 Current or Previously Qualified DNA Analyst:  Yes  No (Circle One)  
 Current or Previously Qualified in Casework, Database Analysis, or Both<sup>3</sup>:  
     Casework    Database     Both (Circle One)  
 Technologies Currently or Previously Qualified In (e.g., STR, mtDNA) (Please List):  
STR  
 Platforms Currently or Previously Qualified In (e.g., Gel based/CE)  
 (Please List): gel based/CE

I verify that:

I understand the requirements of Standard 15.2<sup>4</sup> ; and  
 I have no conflicts of interest with the laboratory being audited; and  
 The information contained in Section 2 above is correct.

Signed By Leslia R. Davis Date 11.8.10

<sup>2</sup> A Qualified Auditor is a current or previously qualified DNA analyst who has successfully completed the FBI DNA Auditor training course.

<sup>3</sup> If the laboratory being audited performs both casework and database analyses, then the audit team or auditor must be qualified in both casework and database analyses.

<sup>4</sup> Standard 15.2 requires that "at least once every two years, an external audit shall be conducted by an audit team comprised of qualified auditors from a second agency(ies) and having at least one team member who is or has been previously qualified in the laboratory's current DNA technologies and platform."

### Appendix C – Auditor Self-Certification for QAS Audits

Section 1 – to be completed by the laboratory being audited:

Laboratory being audited: NCSBI Crime Lab - Raleigh, Casework As of [date] 10/25/10  
 Technologies currently in use: STRs, Y-STRs  
 Platforms currently in use: Capillary Electrophoresis  
 Validations needing to be memorialized: ABI 7500  
 Outsourcing agreements in place or in process: LabCorp

The laboratory being audited may request documentation for the information reported in Section 2 below.

Section 2 – to be completed by the auditor who will sign the attestation statement below the questions and (a) for external audits, return to the laboratory prior to the scheduled audit date; or (b) for internal audits, maintain in the laboratory's files.

Auditor Qualifications:

Name of Auditor: Stephenie Winter Sermeno  
 Auditor's Employer: Washington State Patrol  
 Auditor's Title or Position: Forensic Scientist 5  
 Qualified Auditor<sup>2</sup>:  Yes  No (Circle One)  
 Year Completed FBI DNA Auditor Class: 2005, refresher 2009  
 Current or Previously Qualified DNA Analyst:  Yes  No (Circle One)  
 Current or Previously Qualified in Casework, Database Analysis, or Both<sup>3</sup>:  
 Casework  Database  Both (Circle One)  
 Technologies Currently or Previously Qualified In (e.g., STR, mtDNA) (Please List):  
STR  
 Platforms Currently or Previously Qualified In (e.g., Gel based/CE)  
 (Please List): CE (310, 3130)

I verify that:

I understand the requirements of Standard 15.2<sup>4</sup>; and  
 I have no conflicts of interest with the laboratory being audited; and  
 The information contained in Section 2 above is correct.

Signed By Stephenie Winter Sermeno Date 11/05/10  
Stephenie Winter Sermeno 11/05/10

<sup>2</sup> A Qualified Auditor is a current or previously qualified DNA analyst who has successfully completed the FBI DNA Auditor training course.

<sup>3</sup> If the laboratory being audited performs both casework and database analyses, then the audit team or auditor must be qualified in both casework and database analyses.

<sup>4</sup> Standard 15.2 requires that "at least once every two years, an external audit shall be conducted by an audit team comprised of qualified auditors from a second agency(ies) and having at least one team member who is or has been previously qualified in the laboratory's current DNA technologies and platform."

### Appendix C – Auditor Self-Certification for QAS Audits

Section 1 – to be completed by the laboratory being audited:

Laboratory being audited: NCSBI Crime Lab - Raleigh, Casework As of [date] 10/25/10  
 Technologies currently in use: STRs, Y-STRs  
 Platforms currently in use: Capillary Electrophoresis  
 Validations needing to be memorialized: ABI 7500  
 Outsourcing agreements in place or in process: LabCorp

The laboratory being audited may request documentation for the information reported in Section 2 below.

Section 2 – to be completed by the auditor who will sign the attestation statement below the questions and (a) for external audits, return to the laboratory prior to the scheduled audit date; or (b) for internal audits, maintain in the laboratory's files.

Auditor Qualifications:

Name of Auditor: Sylvia Thurmond

Auditor's Employer: Denver Police Dept Crime Laboratory

Auditor's Title or Position: Forensic Scientist 2 (Forensic Biology & DNA)

Qualified Auditor<sup>2</sup>:  Yes  No (Circle One)

Year Completed FBI DNA Auditor Class: 2007

Current or Previously Qualified DNA Analyst:  Yes  No (Circle One)

Current or Previously Qualified in Casework, Database Analysis, or Both<sup>3</sup>:

Casework Database  Both (Circle One)

Technologies Currently or Previously Qualified In (e.g., STR, mtDNA) (Please List):

STR, Y-STR, previous mtDNA

Platforms Currently or Previously Qualified In (e.g., Gel based/CE)

(Please List): Gened: LI(3130), PF-PCR(7500), Ribitects (L21, Quality), previous CE(3100), 310, 3700, Gel(377)

I verify that:

I understand the requirements of Standard 15.2<sup>4</sup>; and

I have no conflicts of interest with the laboratory being audited; and

The information contained in Section 2 above is correct.

Signed By [Signature] Date 11/5/2010

<sup>2</sup> A Qualified Auditor is a current or previously qualified DNA analyst who has successfully completed the FBI DNA Auditor training course.

<sup>3</sup> If the laboratory being audited performs both casework and database analyses, then the audit team or auditor must be qualified in both casework and database analyses.

<sup>4</sup> Standard 15.2 requires that "at least once every two years, an external audit shall be conducted by an audit team comprised of qualified auditors from a second agency(ies) and having at least one team member who is or has been previously qualified in the laboratory's current DNA technologies and platform."

### Appendix C – Auditor Self-Certification for QAS Audits

Section 1 – to be completed by the laboratory being audited:

Laboratory being audited: NCSBI Crime Lab - Raleigh, Casework As of [date] 10/25/10  
 Technologies currently in use: STRs, Y-STRs  
 Platforms currently in use: Capillary Electrophoresis  
 Validations needing to be memorialized: ABI 7500  
 Outsourcing agreements in place or in process: LabCorp

The laboratory being audited may request documentation for the information reported in Section 2 below.

Section 2 – to be completed by the auditor who will sign the attestation statement below the questions and (a) for external audits, return to the laboratory prior to the scheduled audit date; or (b) for internal audits, maintain in the laboratory's files.

Auditor Qualifications:  
 Name of Auditor: Abby Schwaderer  
 Auditor's Employer: Ohio Bureau of Criminal Investigation  
 Auditor's Title or Position: Forensic Scientist  
 Qualified Auditor<sup>2</sup>:  Yes  No (Circle One)  
 Year Completed FBI DNA Auditor Class: 2005  
 Current or Previously Qualified DNA Analyst:  Yes  No (Circle One)  
 Current or Previously Qualified in Casework, Database Analysis, or Both<sup>3</sup>:  
     Casework    Database     Both (Circle One)  
 Technologies Currently or Previously Qualified In (e.g., STR, mtDNA) (Please List):  
STR  
 Platforms Currently or Previously Qualified In (e.g., Gel based/CE)  
 (Please List): CE

**I verify that:**  
**I understand the requirements of Standard 15.2<sup>4</sup> ; and**  
**I have no conflicts of interest with the laboratory being audited; and**  
**The information contained in Section 2 above is correct.**  
 Signed By Abby Schwaderer Date 11/8/10

<sup>2</sup> A Qualified Auditor is a current or previously qualified DNA analyst who has successfully completed the FBI DNA Auditor training course.

<sup>3</sup> If the laboratory being audited performs both casework and database analyses, then the audit team or auditor must be qualified in both casework and database analyses.

<sup>4</sup> Standard 15.2 requires that "at least once every two years, an external audit shall be conducted by an audit team comprised of qualified auditors from a second agency(ies) and having at least one team member who is or has been previously qualified in the laboratory's current DNA technologies and platform."

## **Appendix D – Personnel Meeting Minimum Education, Experience, and Training Qualifications As Assessed By External Audit**

To be completed by the audit team.

In accordance with Standards 15.1 and 15.2.1, this form shall be used to document the evaluation and approval of analysts, CODIS administrators and technical leaders during an external audit. Section 1 is for documenting personnel who have received two successive separate external audit approvals of their education, experience, and training qualifications. Section 1 should be used to document all individuals who have received two successive separate audit approvals of their education, experience, and training qualifications, regardless of whether the individual is still employed by the laboratory. The date of the prior audit approvals should be noted in this Section, when known.

Section 2 is for documenting personnel who are receiving the **first** external audit approval of their education, experience, and training qualifications.

**Section 1 documents those personnel who have received two successive external audit approvals of their education, experience, and training qualifications.**

**Section 1. (a) – Approvals Between July 1, 2004 and June 30, 2009  
Laboratory personnel who have been evaluated after July 1, 2004, and approved under two successive, separate external audits as meeting the education, experience, and training qualifications required under Standard 5.1 of the 1998 Quality Assurance Standards for Forensic DNA Testing Laboratories:**

Analyst(s):

Timothy Baize (12/06, 10/07)  
Mike Budzynski (11/04, 12/05)  
Courtney Cowan (12/05, 12/06)  
Jenny Elwell (11/04, 12/05)  
Christiana Fischer (12/06, 10/07)  
David Freeman (11/04, 12/05)  
Michelle Hannon (12/06, 10/07)  
Sharon Hinton (11/04, 12/05)  
Kristin Hughes (10/07, 10/09)  
Zachary Kallenbach (12/05, 12/06)  
Ivy McMillan (12/06, 10/07)  
Amanda Overman (11/04, 12/05)  
Chris Parker (11/04, 12/05)  
Amanda Thompson (11/04, 12/05)  
Karen Willingham (11/04, 12/05)

Technical Leader(s):

[Empty box for Technical Leader(s)]

**Section 1. (b) – Approvals After July 1, 2009 Laboratory personnel who have been evaluated after July 1, 2009, and approved under two successive, separate external audits as meeting the education, experience, and training qualifications required under Standard 5.1 of the 2009 Quality Assurance Standards for DNA Databasing Laboratories:**

Analyst(s):

Suzi Barker (10/09, 10/10)  
Mackenzie DeHaan (10/09, 10/10)  
Erin Ermish (10/09, 10/10)  
Russell Holley (10/10, 11/10)  
Sarah Johnson (10/09, 10/10)  
Elaine Staley (10/10, 11/10)  
Tanisha Walker (10/09, 10/10)  
Jody West (10/09, 10/10)

Casework CODIS Administrator(s):

Amanda Overman (10/09, 10/10)

Technical Leader(s):

Chris Parker (10/10, 11/10)

Section 2. (a) – For Personnel Appointed or Hired Prior to July 1, 2009

Laboratory personnel who were appointed or hired prior to July 1, 2009, and approved for the first time as meeting the education, experience, and training qualifications required under Standard 5.1 of the 1998 Quality Assurance Standards for Forensic DNA Testing Laboratories:

Analyst(s):

--

Technical Leader(s):

--

**Section 2. (b) – For Personnel Appointed or Hired On or After July 1, 2009 Laboratory personnel who have been evaluated after July 1, 2009, and approved for the first time as meeting the education, experience, and training qualifications required under Standard 5.1 of the 2009 Quality Assurance Standards for DNA Databasing Laboratories:**

Analyst(s):

Casework CODIS administrator(s):

Technical Leader(s):

## Appendix E – Approved Validations

This form may be used to document the evaluation and approval of validations by the external audit team according to Standard 8; this documentation to be maintained by the audited laboratory to comply with Standard 15.2.2.

---

To be completed by the audit team:

List of validations, if any, evaluated and approved during this audit:

No validations were evaluated.