

#### **SCOPE OF ACCREDITATION TO: ISO/IEC 17025:2017**

Accreditation Requirements for Forensic Testing and Calibration (2023) FBI Quality Assurance Standards for Forensic DNA Testing Laboratories:2020 FBI Quality Assurance Standards for DNA Databasing Laboratories:2020

### Virginia Department of Forensic Science **Central Laboratory**

700 North 5th Street Richmond, Virginia 23219 USA

#### FORENSIC TESTING

Expiry Date: 30 September 2026 Certificate Number: FT-0051

Discipline: Biology		
Component/Parameter	Item	Key Equipment/Technology
DNA Profile Determination	Mitochondrial Short Tandem Repeat (STR) Y-Short Tandem Repeat (Y-STR)	Capillary Electrophoresis
DNA Profile Determination (Database Samples)	Short Tandem Repeat (STR) Y-Short Tandem Repeat (Y-STR)	Capillary Electrophoresis
Individual Characteristic Database	DNA Profile	National DNA Index System (NDIS)
Physical Comparison	DNA Profile	Software Program
Qualitative Determination	Body Fluid Epithelial Cell	Chemical Fluorescence Spectroscopy General Microscopy Immunoassay

Discipline: Digital and Video/Imaging	Technology and Analysis	
Component/Parameter	Item	Key Equipment/Technology
Acquisition/Extraction	Digital Data Image Multimedia Recording Video	Software Program

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Authentication	Digital Data Image Multimedia Recording Video	Software Program
Content Analysis	Digital Data Image Multimedia Recording Video	Software Program Visual
Enhancement	Image Multimedia Recording Video	Software Program
Transcoding	Digital Data Image Multimedia Recording Video	Software Program

Discipline: Fire Debris and Explosives		
Component/Parameter	Item	Key Equipment/Technology
Chemical/Physical Comparison	Explosive Fire Debris Fractured Item	Chemical Energy Dispersive Spectroscopy Gas Chromatography General Microscopy Imaging Infrared Spectroscopy Ion Chromatography Mass Spectrometry Scanning Electron Microscopy Visual X-Ray Powder Diffraction Spectroscopy
Function Evaluation	Explosive	General Microscopy Imaging Visual
Qualitative Determination	Explosive	Chemical Energy Dispersive Spectroscopy Gas Chromatography General Microscopy Imaging Infrared Spectroscopy Ion Chromatography Mass Spectrometry Scanning Electron Microscopy Visual X-Ray Powder Diffraction Spectroscopy
Qualitative Determination	Fire Debris	Gas Chromatography Mass Spectrometry

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Discipline: Firearms and Toolmarks		
Component/Parameter	Item	Key Equipment/Technology
Distance Determination	Firearm Physical Item	Chemical General Microscopy Measuring Equipment
Function Evaluation	Air Gun Firearm Tool	Force Gauge Measuring Equipment Visual
Individual Characteristic Database	Ammunition	National Integrated Ballistic Information Network (NIBIN)
Physical Comparison	Ammunition Tool/Toolmark	General Microscopy Software Program Visual
Qualitative Determination	Ammunition Firearm Metal Nitrate/Nitrite Tool	Chemical General Microscopy Reference Collection
Serial Number Restoration	Physical Item	Chemical General Microscopy Magnetic Visual

Discipline: Friction Ridge		
Component/Parameter	Item	Key Equipment/Technology
Enhancement	Ridge Detail	Chemical Physical Software Program
Individual Characteristic Database	Ridge Detail	Next Generation Identification System (NGI)
Physical Comparison	Ridge Detail	Software Program Visual

Discipline: Impressions		
Component/Parameter	Item	Key Equipment/Technology
Enhancement	Footwear Tire	Chemical Physical Software Program
Physical Comparison	Footwear Tire	Software Program Visual
Qualitative Determination	Footwear Tire	Reference Collection

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Discipline: Materials (Trace)		
Component/Parameter	Item	Key Equipment/Technology
Chemical/Physical Comparison	Adhesive Coating Fiber/Textile Fractured Item General Unknown Glass Polymer Tape	Chemical Energy Dispersive Spectroscopy Gas Chromatography General Microscopy Infrared Spectroscopy Ion Chromatography Mass Spectrometry Microspectrophotometry Refractometry Scanning Electron Microscopy Visual X-ray Powder Diffraction Spectroscopy
Qualitative Determination	Adhesive Coating Fiber/Textile General Unknown Glass Gunshot Residue Hair Metal Polymer Tape	Chemical Energy Dispersive Spectroscopy Gas Chromatography General Microscopy Infrared Spectroscopy Ion Chromatography Mass Spectrometry Microspectrophotometry Reference Collection Refractometry Scanning Electron Microscopy Visual X-ray Powder Diffraction Spectroscopy

Discipline: Seized Drugs		
Component/Parameter	Item	Key Equipment/Technology
Qualitative Determination	Botanical Liquid Solid	Chemical Gas Chromatography General Microscopy Infrared Spectroscopy Liquid Chromatography Mass Spectrometry Thin-Layer Chromatography Visual
Quantitative Measurement	Botanical Liquid Solid	Gas Chromatography Liquid Chromatography Mass Spectrometry
Weight Measurement	Botanical Liquid Solid	Balance

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iscipline: Toxicology		
Component/Parameter	Item	Key Equipment/Technology
Qualitative Determination	Ante-Mortem Biological Item Post-Mortem Biological Item	Electrochemical Gas Chromatography Immunoassay Liquid Chromatography Mass Spectrometry Microdiffusion Ultraviolet Spectroscopy Visible Spectroscopy
Qualitative Determination (Volatiles)	Ante-Mortem Biological Item Liquid Post-Mortem Biological Item	Gas Chromatography Mass Spectrometry
Quantitative Measurement	Ante-Mortem Biological Item Post-Mortem Biological Item	Gas Chromatography Liquid Chromatography Mass Spectrometry
Quantitative Measurement (Volatiles)	Ante-Mortem Biological Item Liquid Post-Mortem Biological Item	Gas Chromatography

When published on a forensic service provider's Scope of Accreditation, ANAB has confirmed the competence required to develop and validate methods and perform on-going quality assurance for accredited activities. For a listed component/parameter, the forensic service provider may add or modify methods for activities without formal notice to ANAB for items and key equipment/technology listed. Contact the forensic service provider for information on the method utilized for accredited work.

Pamela L. Sale Vice President, Forensics

