

<b>STATE OF NORTH CAROLINA</b>  <b>OFFICE OF STATE PERSONNEL</b>  <b>POSITION DESCRIPTION FORM (PD-102R-92)</b>		Approved Classification:  Effective Date:  Analyst:  (This space for Personnel Department Use Only)	
1. Present Classification Title of Position <b>Forensic Impressions Analyst III</b>		7. Present 15 Digit Position Number	Proposed 15 Digit Position Number
2. Usual Working Title of Position <b>Same</b>		8. Department, University, Commission, or Agency <b>Department of Justice</b>	
3. Requested Classification of Position <b>No Change</b>		9. Institution & Division <b>SBI - Crime Laboratory Division</b>	
4. Name of Immediate Supervisor		10. Section and Unit <b>Latent Evidence Section</b>	
5. Supervisor's Position Title & Position Number		11. Street Address, City and County <b>121 East Tryon Road, Raleigh; Wake</b>	
6. Name of Employee		12. Location of Workplace, Bldg., and Room No. <b>Crime Laboratory Building</b>	

**I. A. PRIMARY PURPOSE OF ORGANIZATIONAL UNIT:**

**The primary purpose of the SBI Latent Evidence Section is to provide forensic analysis of evidence to all law enforcement agencies within the State. The forensic services provided include in-lab analyses, technical field assistance, and expert witness testimony in the areas of latent print, footwear, tire track, and unknown deceased identification.**

**B. PRIMARY PURPOSE OF POSITION:**

**The primary purposes of this position are to serve in the capacity of Forensic Impressions Analyst III (Assistant Section Supervisor) of the Latent Evidence Section and assist in maintaining an efficient flow and equitable distribution of work within the section; assist in all administrative matters related to the day-to-day operations of the section; as well as serve as the designated in-charge in the absence of the Supervisor. Duties of this position include:**

- 1) Performing highly specialized and complex analytical work in the fields of latent print analysis and unknown deceased processing and may require analysis of imprint evidence in the areas of footwear, tire track, glove mark, and other questioned impression analyses.
- 2) Assisting with administrative management and daily section operations of the section.
- 3) Identifying, researching and overseeing the implementation of new methods of analysis and applications of instrumentation.
- 4) Serving as the primary technical liaison for section employees, local law enforcement personnel, and other specialists in the forensic science community.
- 5) Assisting with the coordination, planning, research and development, and fiscal management of the personnel, equipment, and supplies in the section to meet established goals and objectives.
- 6) Coordinating and presenting training to staff analysts and other members of the law enforcement community as required.

**C. WORK SCHEDULE:**

Regular work hours are from 8:00 A.M. to 5:00 P.M.; however, after hour work is often necessary and is expected. This position is on call 24 hours a day, seven days a week.

## D. CHANGE IN RESPONSIBILITIES OR ORGANIZATIONAL RELATIONSHIP:

With the accreditation of our laboratory, the quality assurance/quality control responsibilities have grown significantly. Current laboratory standards have been set well above required levels to ensure the final work product is of the highest quality. This effort will require constant review and assessment to maintain the high quality program in place for the Crime Laboratory. Current methods continue to improve and will require regular updates of procedures as well as upgrades with respect to equipment. Technological advances are routinely introduced by the forensic community and these updates will need proper research and validation prior to implementation. The introduction of new technologies will also call for bureau personnel to train and communicate with other law enforcement officers to properly use these procedures. This increased commitment to maintain high standards are further intensified by increasing demands to provide timely forensic services while producing a quality product for law enforcement agencies throughout the state.

## II. A. DESCRIPTION OF RESPONSIBILITIES AND DUTIES:

Method used (Check One):                      Order of Importance: ☒   
    Sequential Order:    ☐

Place an asterisk (\*) next to each essential function. (See instructions for complete explanation.) Please note percentage of time for each function.

\*a. 40%                      Perform routine, specialized and highly complex case analyses

The primary purpose of a Forensic Impressions Analyst III is to perform highly specialized and complex analytical work in the fields of latent print analysis and unknown deceased processing, and may require examinations of footwear, tire tread, glove mark, and other questioned impression analyses. This position has the primary responsibility for accepting, analyzing and reporting of high profile, unique, and/or major cases while placing a priority on the quality and timely completion of these cases. The Forensic Impressions Analyst III will also be responsible for maintaining a caseload at all times and increase this volume during peak periods as prescribed by the Section Supervisor. Casework is conducted on a broad range of evidence in a broad range of criminal cases and the analyst must prepare and furnish reports of the analysis to local, state, and federal agencies, both inside and outside of North Carolina, that are involved. As a result of the analysis, the analyst may be required to testify as an expert witness and present a competent and unbiased court presentation to explain and defend his or her findings. This analyst will also be required to testify for other analysts in the event the reporting analyst cannot respond to court for a legitimate reason.

The analyst works with a great deal of autonomy and is held accountable for the continuing smooth flow of assigned casework. Evidence originates from a number of sources and in each case, the analyst must first review the item in order to make an independent decision as to what type of analysis is required. The decision is based on the types of substrates that are present and the methods of analysis presently approved for use by the analyst. Failure to make the proper decision will result in the loss of valuable evidence. In cases involving impressions of marginal quality, the analyst will utilize image processing techniques in an effort to bring the analysis to a successful conclusion. Based on the analyst's extensive expertise, experience, condition of the evidence, and his/her knowledge of the reactions of the various methods, he or she must properly apply these methods in an attempt to obtain any/all latent impressions which may be present on an item of evidence. The decision as to what methods to utilize is a completely independent decision made by the analyst.

As previously stated, failure to utilize properly the most appropriate method, or inadvertently using the wrong sequence of methods, can render the evidence useless. The responsibility for safeguarding against this loss lies solely with the analyst. The analyst must be totally aware during all phases of the analysis of the potential to have the evidence examined in another discipline (i.e., serology, trace evidence, firearms, questioned documents, or drugs). The analyst has total responsibility for ensuring that his/her examination will not adversely affect other attempts at analysis.

## II. A (Continued)

The task of analysis is further carried out by conducting very detailed examinations of the minutiae in the questioned latent impressions using magnification or optical comparators. The analyst must be capable of conducting both manual and automated examinations of known and questioned latent impressions in order to determine whether or not the prints could have had a common origin. In each case, the analyst must conduct a very detailed macroscopic examination of each latent impression so he or she can make an independent decision regarding the comparison value of the impression. Failure to render the correct opinion at this stage will result in the loss of this evidence, which could have been used to successfully prosecute a criminal offender. Failure to evaluate and identify the evidence with 100% accuracy could also delay the apprehension of a criminal offender, or may result

in an innocent person being incarcerated, and perhaps prosecuted, for an offense that he or she did not commit. This is a strictly independent decision made by the analyst based on his/her extensive expertise.

In the event that the manual examination does not result in an identification, the analyst must be capable of conducting an automated search. This requires an in-depth knowledge of the computer system because failure to properly interpret the minutiae data utilized by the computer will result in a missed identification. As a result of the computerized search, the analyst is provided **with a number of sets of known standards. These standards are in the form of known inked fingerprint impressions of criminal offenders. The computerized system utilized in this process is the Automated Fingerprint Identification System (AFIS). Following the computerized search, the analyst must be able to compare known standards with the questioned impressions in an expedient manner. Each latent impression must be meticulously scrutinized to allow the analyst to make an independent decision as to whether or not the questioned impression and any of the known standards have a common origin. Occasionally, the analyst will be required to personally obtain known standards from the suspect or victim.**

Other casework may include analyzing Imprint Evidence (footwear, tire tread, glove mark and other questioned impression analysis). This is very specialized analytical work as questioned impressions may be on glass, tile, paper, wooden flooring, in sand, in dirt or mud, snow, in rugs or carpeting as dust impressions, and many other surfaces. The analyst must be aware of the different manufacturing processes of footwear, tires, gloves and other substrates which may have left an impression on a surface. Factors such as wear characteristics, cuts, nicks, striations, and manufacturing characteristics must be taken into consideration when rendering an opinion.

In order to complete the analysis of imprint evidence, the analyst must be proficient in the use of accurate measuring devices. In addition, specialized photographic equipment, laser instrumentation, and various other aids (e.g., casting mediums, lifters, powders) are utilized to detect and recover impressions or produce known standards. Many of the chemical development methods, laser and light source methods, and image processing methods that are used in latent print analysis are also utilized in the examination of footwear and tire track impressions. The analyst must be proficient and/or able research all related applications involved in imprint evidence. Further, the analyst must be able to comprehend and utilize biological facts concerning the structure of the foot and its affect on footwear impressions. The analyst must also be able to comprehend and utilize facts concerning the manufacturing of footwear and tires as it relates to impression evidence left at crime scenes. Knowledge of the tire tread must be utilized concerning the alignment of the vehicle and its affects on the tire tracks. The analyst must be able to use the Shoeprint Image Capture and Retrieval (SICAR) and the Tread Assistant computer databases to capture, search and store for reference unidentified latent impressions. These databases consist of images of footwear and tire treads from manufacturers throughout the world and should be further used to identify the manufacturer and type of footwear or tire that could have made a particular impression at a crime scene.

The results of all analyses performed are incorporated into written reports which may form a basis for some legal proceedings. The results of the examination are reported to the investigator(s) and the District Attorney. Peripheral casework includes the evidence custody requirement of marking, cataloging, and receipting items of evidence being examined, and maintaining very accurate records of analyses performed. Failure to do this could result in the evidence being ruled inadmissible in court, thus jeopardizing the entire case.

## II. A (Continued)

This analyst will be scheduled as an on-call responder to provide on-site technical field assistance at crime scenes when required. This individual must be able to efficiently establish an open line of communication with requesting agencies to ensure all aspects of the response are handled in an appropriate manner.

**\*b. 20%      Assisting with administrative/managerial duties**

The Forensic Impressions Analyst III position has the responsibility of assisting the supervisor with all administrative and managerial duties associated with the operation of the section and other assignments as required, and to serve as the In-charge person in the absence of the section supervisor. Further, this position will assist in ensuring that the overall work performed by the analysts of the section is conducted in an efficient and timely manner. It will be the responsibility of this

employee to conduct periodic reviews at least once each thirty days, to determine the status of each analyst workload and document any problem areas that may be hampering the overall flow of work.

This position will work closely with the section supervisor to establish and implement section goals and objectives. This individual will often be called upon to assist in the formulation of the Crime Laboratory and Bureau-wide goals and objectives while ensuring that these standards are effectively met in the appropriate time frame. All goals and objectives must be effectively communicated to management and staff. Updates and/or modifications may be necessary at times to maintain the overall focus of this process.

This position will attend all Crime Laboratory staff meetings as required in the absence of the section supervisor. Section staff meetings will be routinely conducted to disseminate all pertinent information from the Supervisor=s meetings and other related section information. The Forensic Impressions Analyst III will assist in the monitoring of court testimonies to ensure each analyst is providing the court system with a professional demeanor and accurate information. Often, this analyst must also be available to testify for analysts who are unable to appear in court for leave or other approved reasons.

**\*c. 15% Quality assurance coordination and implementation of programs**

The analyst will be the Quality Assurance Manager for the Latent Evidence Section and will provide recommendations to the supervisor on all quality control issues. This individual will assist with the coordination of periodic proficiency tests, conduct administrative and technical reviews of cases, and provide input on specialized training for all forensic analysts actively involved in casework as assigned by the supervisor. This will be carried out for the purpose of identifying any weaknesses in the abilities of analysts or in the section/agency policies and procedures. The ultimate goal is to assure the agency and the state that the technical services provided by this section are of the highest quality.

This individual will assist the supervisor in all aspects of bureau inspections, accreditation proceedings and annual audits conducted on the section. This process will involve ensuring the section is meeting or exceeding all approved standards set forth by the governing body. Section procedures and all manuals must be up-to-date and reflect current operating procedures at all times. Recommendations to existing procedures and practices must be updated or revised to document any changes offered by the inspection teams in a timely manner. Once this process is complete, all updates to operating practices must be disseminated to all staff members.

**\*d. 10% Coordinate the technical operations of the Latent Evidence Section to include research, data collection, review, test and implement new methods and equipment for laboratory use.**

This analyst is responsible for directing the overall research program within the section for all new technologies and methodology. Considerable knowledge of current trends and awareness of future direction within the field is required to oversee this area. References and current literature must be reviewed and disseminated to all analysts with proper instructions and guidance for implementation. This analyst will research all procedures and techniques prior to inclusion into the Section's Procedures Manual. This research and test/analysis will include all aspects of new or improved methodology. In addition, this individual will make recommendations related to safety for all new chemicals, equipment and techniques utilized and assist the Section Safety Officer in research of safety procedures prior to incorporation in laboratory and field usage.

**II. A (Continued)**

This position must also be able to research, write and/or direct the proper procedures for applying for grants and other research funding opportunities. Proper administration,

documentation and monitoring of the grant applications must be applied to each request as these projects often are lengthy processes. This analyst will continually collect technical data which deals with new technology. The information will be used to upgrade and improve existing methods of detection and analysis in the laboratory. Coordination will be necessary to maintain the technical library concentrating on latent prints, footwear, tire track, other imprint evidence, as well as crime scene information.

It will be the task of the Forensic Impressions Analyst III to conduct extensive research dealing with new methods and to test all new techniques that are employed or made accessible to determine effectiveness, efficiency and practicality for both lab and field use. This analysis will be conducted in a systematic way with results verified and recorded. This individual will obtain/collect technical data which deals with new technology as it applies to this section or techniques that will upgrade and improve existing methods of detection and analysis. Communication with various progressive individuals and agencies who deal with new aspects pertaining to the disciplines must remain at a constant level. Attendance will be required at various training seminars, international symposiums and various workshops dealing with the related forensic fields to share and acquire new techniques or procedures.

\*e. 5% Training analysts and other law enforcement officers in current forensic trends and newly acquired techniques (Specialized Training Officer)

The Forensic Impressions Analyst III will be required to instruct laboratory personnel, local law enforcement officers and others in the areas of latent print and imprint evidence analyses. The teaching assignments may be located across the state and serve local, state, and/or federal law enforcement officers. This individual must maintain or seek instructor certification to obtain or enhance necessary skills and abilities for instructing others when required.

This individual must maintain constant awareness of the specialized training needs of all staff members. Specialized training must be verified and it will be the responsibility of this individual to locate and coordinate necessary training

using established section and bureau policies and procedures. In addition, the analyst will coordinate the training of new analysts for the section, verify identifications made by these analysts, assists in the utilization of specialized equipment needed to examine complex cases for all analysts, and provides technical assistance both inside and outside of the laboratory.

The Forensic Impressions Analyst III must maintain constant awareness of the basic and specialized training needs of all staff members. A periodic review must be conducted to ensure all training needs are addressed ensuring a fully trained and competent staff. Minimum training standards for entry level analysts must be met within the specified period of the prescribed training progression and adequately relayed to the section training officer. This position is also responsible for verifying, locating and coordinating specialized training activities and providing information on training opportunities to other staff members. This individual will also assist in monitoring the training and instructional activities of the certified instructors of the section. These activities must be relevant to specific guidelines set forth by the Training Division and adhere to bureau policy and procedures prior to approval.

\*f. 5% Communicating with the Criminal Justice Community, management and other administrative personnel.

This position must communicate effectively, orally and in written form, with supervisory personnel and other law enforcement personnel to ensure all bureau goals and objectives set forth by the section and the Crime Laboratory are met. Court officials and investigators rely on the technical data and advice provided by the supervisor to build cases. The accuracy of this information is of the utmost importance when communicated to these officials to strengthen criminal case proceedings. The Analyst is also responsible for ensuring that management personnel are aware of the needs of the section and any specific problem areas which may arise in a timely manner.

## II. A (Continued)

This position must be well versed on criminal justice procedures and criminal law to adequately advise officers inquiring for proper procedures and guidance. The analyst will often work closely with the bureau attorney, district attorneys, and local jurisdictions. Assistance will often be required for pre-trial conferences which may occur with little or short notice. This assistance may also require providing information on rule of evidence procedures as it applies to court proceedings.

The analyst may be called upon to assist other law enforcement agencies and members of the academic community to perform a variety of services. This position must be able to teach and/or demonstrate new methodology utilized in the detection and analysis of latent print, footwear and tire track evidence. Further, this individual will often be required to provide both published and unpublished technical data dealing with new technology as it applies to the overall expertise of the section.

This analyst may be responsible for making recommendations to requesting officers when a decision must be made regarding the potential loss of other forms of evidence in the search for latent impressions.

**g. 5% Other related assignments and activities**

Other duties are performed as assigned by the Latent Evidence Section Supervisor, Assistant Director of Crime Laboratory Services, and the Director of the SBI.

**II. B. OTHER POSITION CHARACTERISTICS:**

**1. ACCURACY REQUIRED IN WORK**

The need for precision, accuracy, and exactness are 100% and cannot be overemphasized. Each case and each examination can determine the fate of an individual or the successful investigation of a serious crime.

**2. CONSEQUENCE OF ERROR**

An incorrect identification, missed identification or a judgment with too low a level of confidence can convict an innocent person or set a guilty suspect free. Failing to accurately identify a guilty suspect can lead to additional crimes and, in worst cases, to the loss of life of an additional victim(s).

**3. INSTRUCTION PROVIDED TO EMPLOYEE**

Employee functions with almost complete autonomy. Brief instructions may be given by the supervisor for special projects.

**4. GUIDES, REGULATIONS, POLICIES AND REFERENCES USED BY EMPLOYEE**

Employee must be aware of and apply existing Bureau and Section policy and procedures to all phases of work. In addition, State Personnel Policy and Procedures will be used when functioning as the Section Supervisor.

Technical reference materials and journals are utilized as a basis for researching and implementing new methods of analysis.

**5. SUPERVISION RECEIVED BY EMPLOYEE**

Feedback from immediate supervisor is conducted in accordance with agency performance management.

**II. B (Continued)**

**6. VARIETY AND PURPOSE OF PERSONAL CONTACT**

The position is routinely in contact with persons both inside and outside of state government. Sources of contact include:

- a. Other SBI personnel
- b. Other state level law enforcement officers
- c. State court officials (including District Attorneys)
- d. State Medical Examiner's Office staff
- e. City and county law enforcement officers
- f. Federal court officials
- g. Professionals in academic and scientific organizations
- h. Defense attorneys/opposing experts
- i. Victims/Witnesses
- j. Business professionals (vendors, etc.)

**7. PHYSICAL EFFORT**

With the exception of crime scene activities, physical effort is generally minimal.

**8. WORK ENVIRONMENT AND CONDITIONS**

Working conditions are usually a laboratory or office setting but will include court rooms and crime scenes of all types.

The employee is subject to irritant and hazardous chemicals, eye strain, and occasionally exposure to biological hazards at crime scenes, when identifying deceased individuals and also when examining bloody evidence.

**9. MACHINES, TOOLS, INSTRUMENTS, EQUIPMENT, AND MATERIALS USED**

Laboratory Model Argon Ion Laser (Coherent)

Stat Camera

35mm Cameras

Omniprint 1000 (specialized light source)

Crimescopes Alternate Light source

Luma-Lite (specialized light source)

Cyvac Superglue System

Spectroline UV (short wave light source)

Ardrox UV (long wave light source)

Forensic Macroscopic Comparator

Forensic Macroscopic Magnifier

CU5 and MP4 Polaroid Cameras

TC III Camera

Digital Camera

Forensic Image Processing System (Computer Enhancement)

Electrostatic Dust Print Lifters

Forensic Gel Lifters

Precision Calipers

Shakers, Balances, and Applicable Scales

Automated Fingerprint Identification System (Computer System)

SICAR Footwear System

Tread Assistance Program

Personal Computer and related programs

**II. B (Continued)****10. VISUAL ATTENTION, MENTAL CONCENTRATION AND MANIPULATIVE SKILLS**

When conducting analysis or testing new methods of analysis, 75 - 80% of the analyst's work each day requires close visual attention. Each examination may take from several minutes to several hours depending upon the quality of the evidence submitted.

Intense mental concentration is necessary when comparing the questioned evidence to the known standards. Periods of intense concentration occur daily for several hours.

**11. SAFETY FOR OTHERS**

Use of laser instrumentation, toxic/volatile chemicals, and known or suspected carcinogens must be closely controlled to safeguard against injury to self or others.

Care must be taken to appropriately repackage potentially contaminated evidence to keep from exposing others to disease causing factors.



**12. DYNAMICS OF WORK**

Constant research in the field results in frequent changes or modifications to the methods of analysis utilized. Laboratory accreditation standards continue to emerge and their interpretation and practical applications become more complex. The position must maintain a constant awareness of these changes and adapt them for use in the section.

Frequently, special projects are assigned.

**III. KNOWLEDGE, SKILLS & ABILITIES AND TRAINING & EXPERIENCE REQUIREMENTS****A. KNOWLEDGES, SKILLS AND ABILITIES**

1. Ability to provide specialized technical training to other Forensic Analysts.
2. Knowledge of good management practices and ability to manage the work of others.
3. Extensive knowledge of the overall Crime Laboratory.
4. Knowledge of the SBI, Department of Justice, and State Personnel policies and procedures.
5. Extensive knowledge of all instrumentation in areas of specialization.
6. Knowledge of the organizational structure and operational procedures and policies of the Crime Laboratory including the most effective flow of evidence from complex cases through the laboratory.
7. Ability to work productively with laboratory personnel and law enforcement personnel.
8. Thorough knowledge of the principles, concepts, theories, reference sources and laboratory practices involved with the forensic examination and analyses of friction ridge detail.
9. Working knowledge of criminal law and of the rules and regulations regarding evidence gathering and handling.

**III. A (Continued)**

10. Working knowledge of scientific methodology and of laboratory safety practices.
11. Ability to compare very detailed and minute differences in impressions using magnification, enhancement and automated search and identification systems.
12. Abilities to conduct routine chemical procedures, analyze results, interpret methodology and to solve theoretical problems.
13. Ability to express technical information clearly both orally and in writing. To perceive colors normally. Make olfactory distinctions, and to establish and maintain effective working relationships.

**B. 1. REQUIRED MINIMUM TRAINING**

Graduation from a four-year college or university, preferably with a major in forensic science, forensic studies, biology or chemistry or an equivalent combination of training and experience.

Five years of progressive experience directly related to the forensic analysis of latent fingerprint evidence.

**2. ADDITIONAL TRAINING/EXPERIENCE**

Satisfactory completion of the SBI Academy including state mandated BLET - or equivalent to meet state certification standards.

**3. EQUIVALENT TRAINING AND EXPERIENCE**

May be considered.

**C. LICENSE OR CERTIFICATION REQUIRED BY STATUTE OR REGULATION:**

None.

**V. CERTIFICATION:** Signatures indicate agreement with all information provided, including designation of essential functions.

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**Supervisor's Certification: I certify that:**

- a. I am the Immediate Supervisor of this position; that
- b. I have provided a complete and accurate description of responsibilities and duties; and
- c. I have verified (and reconciled as needed) its accuracy and completeness with the employee.

**Signature:**

**Title:**

**Date:**

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**Employee's Certification: I certify that I have reviewed this position description and that it is a complete and accurate description of my responsibilities and duties.**

**Signature:**

**Title:**

**Date:**

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**Section or Division Manager's Certification:** I certify that this position description, completed by the above named immediate supervisor, is complete and accurate.

**Signature:**

**Title:**

**Date:**

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**Department Head or Authorized Representative's Certification:** I certify that this is an authorized, official position description of the subject position.

**Signature:**

**Title:**

**Date:**

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