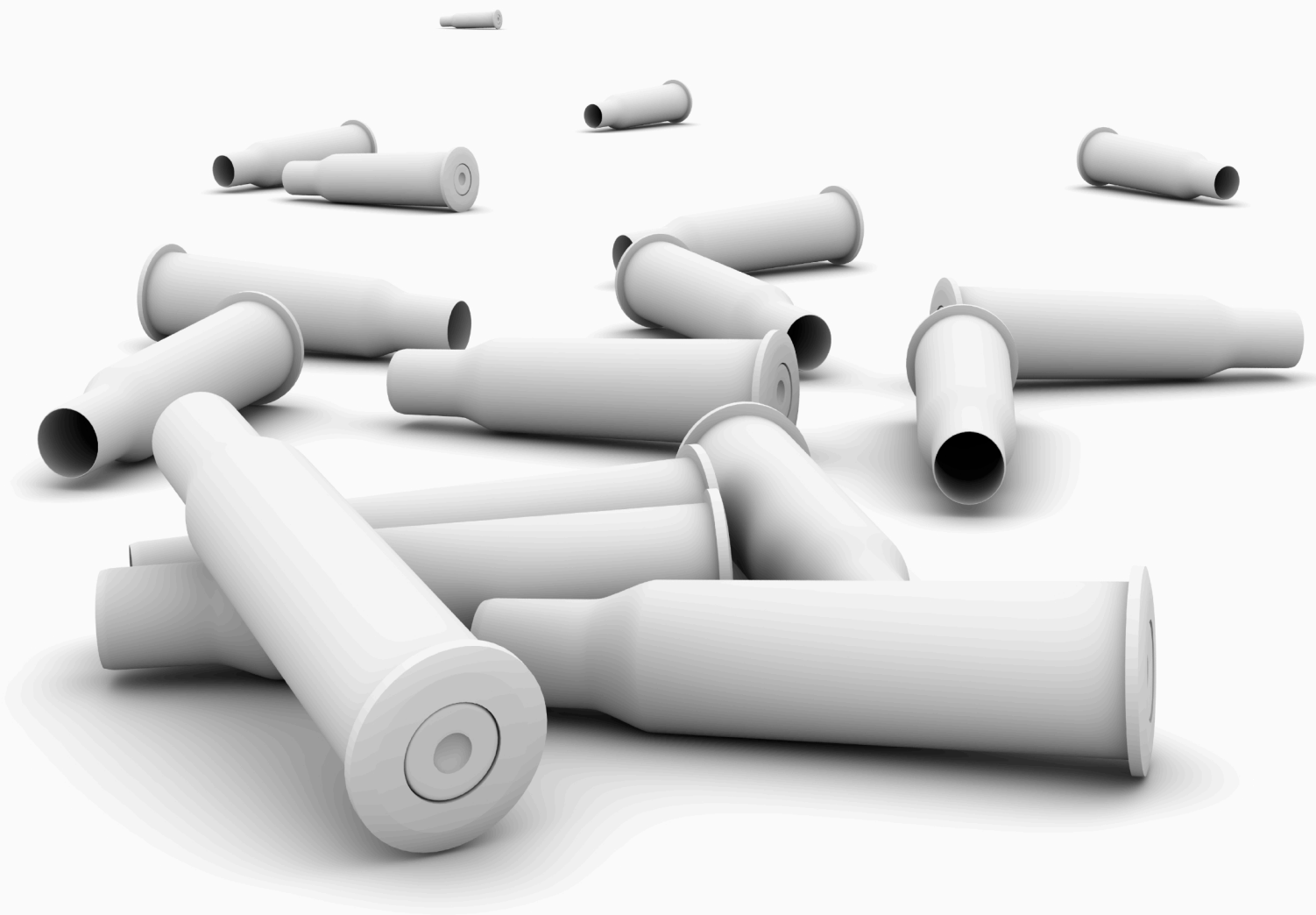# FORENSIC ASSURANCE

Proficiency and Competency Testing Services
2018

Declared Double-Blind and *Static* Proficiency Tests

Declared Double Blind Test Design

Each participant will receive a randomized test with the answers for that test being different from other tests used during the same testing cycle. The participant is aware that they are taking a test.

Static Test Design

All participants within the same laboratory system will receive the same test items with the correct answers being the same as others participating during the same test cycle. This is a cost effective option to compliment the declared double-blind test design.

ISO/IEC 17043:

Forensic Assurance was the first forensic science proficiency test provider accredited in accordance with the recognized International Standard *ISO/IEC 17043: Conformity Assessment – General Requirements for Proficiency Testing*. Our management system meets the principles of ISO 9001:2008.

Statistics:

Forensic Assurance personnel collaborated with statisticians from the University of Michigan to develop statistical models that are used to calculate relevant statistics for the forensic science and legal communities. Included are false positive and false negative error rates, as well as, sensitivity and specificity.

Designed by Forensic Experts:

Forensic experts design and develop Forensic Assurance proficiency tests to ensure that the tests are relevant and appropriately challenging.

2018 Proficiency Tests

Probabilistic Genotyping Software
(DNA Mixture Analysis)

Forensic Biology

Forensic DNA

Body Fluid Identification

Bloodstain Pattern Analysis

Fingerprint Identification

Fingerprint Processing

Firearm Identification

Tool Mark Identification

Gunshot Residue

Controlled Substances

Footwear Identification

Forensic Fiber Analysis

Forensic Paint Analysis

Forensic Assurance is an approved proficiency test provider for ANAB and A2LA. Our tests fulfill the external proficiency test requirement for ISO/IEC 17025 and 17020 accredited laboratories.

A2LA ACCREDITED
Proficiency Testing Provider
CERT #3526.01

Probabilistic Genotyping Software Proficiency Test (DNA Mixture Analysis)

Each proficiency test design will include two evidentiary mixture samples (2, 3, or 4 person mixtures) and four known samples. The samples will be processed either per laboratory system, laboratory, or instrument depending on the technical leader's input. The generated data files will be distributed to the proficiency test participants for analysis. Participants are requested to compare each known sample to the mixture samples utilizing current probabilistic genotyping software and procedures. Each participant will need to determine the number of contributors to each evidentiary sample, the likelihood ratio of each comparison, and which hypothesis each likelihood ratio favors (prosecution or defense).

The purchase of the Forensic Probabilistic Genotyping Software Proficiency Test includes online answer sheet login credentials for two participants. Login credentials for additional participants can be purchased to accompany the purchased test samples.

Please direct technical questions to Brandon Good at 248-773-5114 or email: bgood@forensicassurance.com

Additional Information: *The settings for the software programs that are available for DNA mixture analysis are specific to the instrumentation utilized by the laboratory. Participants are being testing on their ability to input data generated by the laboratory's genetic analyzer into the software program, and not on their ability to properly process and analyze biological samples. It was determined appropriate to provide one biological sample set per laboratory system, laboratory, or instrument to generate the data that will be utilized by participants taking this test.*

Spring 2018 Probabilistic Genotyping Software Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of May 7, 2018
Answer Submission Deadline: August 6, 2018

Fall 2018 Probabilistic Genotyping Software Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of November 5, 2018
Answer Submission Deadline: February 4, 2019

***Note: Same sample set will be used for both the Spring and Fall distributions

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Forensic Biology Proficiency Test

Each proficiency test design will include randomly selected neat and/or mixture samples. All tests will contain multiple known contributor samples and multiple samples of unknown stains collected on various substrates. The results of the serological screening, DNA analyses, and interpretation conclusions will be collected for these tests. The Forensic Biology Proficiency Tests will be distributed four times a year (once per quarter). The distribution of these tests have been structured and scheduled to accommodate laboratories meeting the test frequency requirements of the DNA Advisory Board (DAB) FBI Quality Assurance Standards (QAS).

Winter 2018 Forensic Biology Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of January 22, 2018
Answer Submission Deadline: April 23, 2018

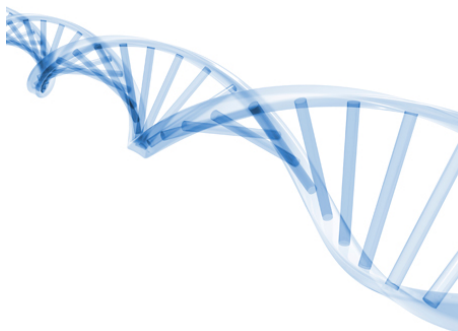**Summer 2018 Forensic Biology Proficiency Test**
Purchase Deadline: March 1, 2018
Distribution: week of July 9, 2018
Answer Submission Deadline: October 8, 2018

Spring 2018 Forensic Biology Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of April 9, 2018
Answer Submission Deadline: July 9, 2018

Fall 2018 Forensic Biology Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of October 8, 2018
Answer Submission Deadline: January 7, 2019

Forensic DNA Proficiency Test

Each proficiency test design will include randomly selected neat and/or mixture samples. All tests will contain multiple known contributor samples and multiple samples of unknown stains collected on various substrates. The DNA analyses and interpretation conclusions will be collected for these tests. The results of serological screening is not collected for this test as the body fluid contents of each sample is provided to the participant. The DNA Proficiency Tests will be distributed four times a year (once per quarter). The distribution of these tests have been structured and scheduled to accommodate laboratories meeting the test frequency requirements of the DNA Advisory Board (DAB) FBI Quality Assurance Standards (QAS).

Winter 2018 Forensic DNA Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of January 22, 2018
Answer Submission Deadline: April 23, 2018
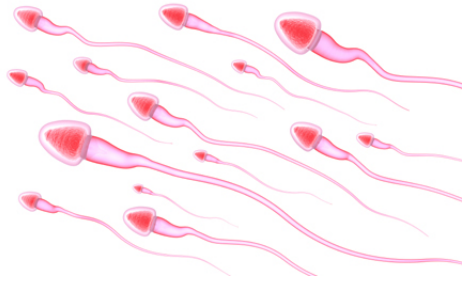
Summer 2018 Forensic DNA Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of July 9, 2018
Answer Submission Deadline: October 8, 2018

Spring 2018 Forensic DNA Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of April 9, 2018
Answer Submission Deadline: July 9, 2018

Fall 2018 Forensic DNA Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of October 8, 2018
Answer Submission Deadline: January 7, 2019

Body Fluid Identification Proficiency Test

Each proficiency test design will include multiple randomly selected samples of biological stains. Participants will report results for screening tests only. This proficiency test is designed to test the ability of the participant to identify a variety of body fluids on various substrates.

Spring 2018 Forensic Body Fluid Identification Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of April 9, 2018
Answer Submission Deadline: July 9, 2018

Fall 2018 Forensic Body Fluid Identification Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of October 8, 2018
Answer Submission Deadline: January 7, 2019

Bloodstain Pattern Analysis Proficiency Test

Each test will contain digital images of bloodstain patterns. Participants are requested to classify the pattern types. In addition, digital images of an impact bloodstain pattern will also be provided with specific spatter stains selected for the participant to measure and calculate the angle of impact.

Summer 2018 Bloodstain Pattern Analysis Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of July 9, 2018
Answer Submission Deadline: October 8, 2018

Fingerprint Identification Proficiency Test:

Included in each test will be digital photographs of unknown fingerprints/palm prints and high-resolution scans of known suspect print cards. The Buyer has the option of purchasing the test as Digital Only (DVD containing digital unknown images and high-resolution scans of known print cards) or Printed and Digital (DVD plus the entire test printed). Participants will be tested on their ability to identify or eliminate the contributor(s) to the unknown latent prints and palm prints.

Winter 2018 Fingerprint Identification Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of February 5, 2018
Answer Submission Deadline: May 7, 2018

Summer 2018 Fingerprint Identification Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of August 6, 2018
Answer Submission Deadline: November 5, 2018

Fingerprint Processing Proficiency Test

Included in each test will be a total of six proficiency test items - three samples each of two different types of surfaces for processing. The types of surfaces and matrix will be adjusted each year. The surfaces and matrices are chosen from porous, non-porous, and adhesive surfaces and may include a natural matrix or a blood matrix. For porous and non-porous surfaces a control will also be included on the sample.

Spring 2018 Fingerprint Processing Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of May 7 2018
Answer Submission Deadline: August 6, 2018

Firearm Identification Proficiency Test

Different make and model of firearms will be used in the development of the proficiency test items for each of the proficiency testing cycles. This allows participants to be tested on their ability to properly identify or eliminate fired ammunition components when different manufacturing processes are used in the development of the utilized firearms. Firearms that were consecutively manufactured, or manufactured in close time proximity to one another, are used in the development of many of our proficiency tests.

Winter 2018 Firearm Identification Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of February 5, 2018
Answer Submission Deadline: May 7, 2018

Summer 2018 Firearm Identification Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of August 6, 2018
Answer Submission Deadline: November 5, 2018

Tool Mark Identification Proficiency Test

Different tool actions and substrates will be used in the development of the proficiency test items for each of the proficiency testing cycles. Participants will be tested on their ability to properly produce known tool marks, compare known and unknown tool marks, and/or inter-compare unknown tool marks. New tools and heavily worn tools may be used in the development of proficiency test items, and variations in the class features of the tools and tool marks will test the examiner's proficiency in eliminating incompatible test items.

Winter 2018 Tool Mark Identification Proficiency Test
Purchase Deadline: November 1, 2017
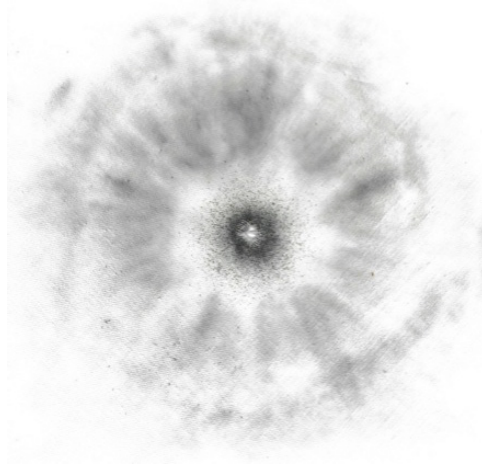Distribution: week of February 5, 2018
Answer Submission Deadline: May 7, 2018

Summer 2018 Tool Mark Identification Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of August 6, 2018
Answer Submission Deadline: November 5, 2018

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Gunshot Residue Proficiency Test

Participants are requested to visually examine and chemically process three unknown gunshot residue patterns. Their results are to be compared to high resolution printed images of unprocessed and chemically processed (Modified Griess Test and Sodium Rhodizonate Test) known distance gunshot residue patterns. The participants will be tested on their ability to properly process and evaluate gunshot residue patterns to determine a muzzle-to-target distance range.

Spring 2018 Gunshot Residue Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of May 7, 2018
Answer Submission Deadline: August 6, 2018

Controlled Substances Proficiency Test

Each proficiency test will contain two unknown samples to analyze for the possible presence and identification of a controlled substance(s). The samples may be powders, solids, plant materials, or other sample types that are routinely encountered in a forensic laboratory. Participants are requested to analyze the samples using their laboratory's procedures and instrumentation.

Spring 2018 Controlled Substances Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of May 7, 2018
Answer Submission Deadline: August 6, 2018

Fall 2018 Controlled Substances Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of November 5, 2018
Answer Submission Deadline: February 4, 2019
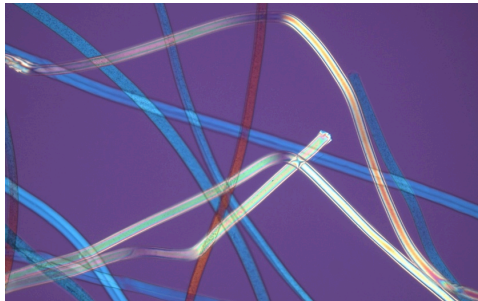
Footwear Identification Proficiency Test

Each proficiency test will contain digital images of different footwear impressions in a variety of mediums, which may include three-dimensional impressions in dirt/sand/snow, two-dimensional impressions in dust and/or developed with powders or other enhancement techniques. The test will also contain digital images of the tread of known shoes and known shoe impressions for comparison to the questioned impressions. Participants are requested to examine and process the digital images of the questioned impressions and compare these images to the known shoes/impressions.

Spring 2018 Footwear Identification Proficiency Test
Purchase Deadline: November 1, 2017
Distribution: week of May 7, 2018
Answer Submission Deadline: August 6, 2018

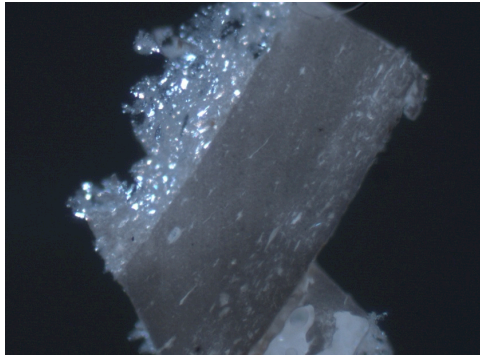## Forensic Fiber Analysis Proficiency Test

Each proficiency test will contain questioned and known fiber samples that represent typical fiber types encountered in casework (natural and/or synthetic). The fiber samples may be composed of pieces of fabric, yarns/threads, individual fibers, tape lifts or other suitable medium that are routinely encountered in casework. Participants are requested to compare the fiber samples utilizing their laboratory's procedures and instrumentation.

Fall 2018 Forensic Fiber Analysis Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of November 5, 2018
Answer Submission Deadline: February 4, 2019

Forensic Paint Analysis Proficiency Test

Each proficiency test will contain questioned paint samples for comparison to known paint samples. These paint samples will represent typical types of paints (architectural, automotive, bicycle, spray paints, etc.) that are found in casework and may vary between single and multiple layers. The paint samples may be paint chips, smears, painted substrates or other forms that are routinely encountered in a forensic laboratory. Participants are requested to compare the different paint samples utilizing their laboratory's procedures and instrumentation.

Summer 2018 Forensic Paint Analysis Proficiency Test
Purchase Deadline: March 1, 2018
Distribution: week of August 6, 2018
Answer Submission Deadline: November 5, 2018

Forensic DNA Competency Test

Thorough quality validations are required to maintain a high quality crime laboratory. A key component of validation is to determine the competency of practitioners in the new chemistry, instrumentation, quantitation kit, or new extraction procedure as required by the Quality Assurance Standards for Forensic DNA Testing Laboratories (Standard 8.4).

Each competency test will consist of two known blood samples, one mixed bloodstain, one mixed semen/bloodstain, and one single source bloodstain. Direct amplification samples (saliva) and additional mixed bloodstains (different mixture ratios) may be purchased as well and added to your 'customized' competency test. Our competency tests are declared double blind with numerous body fluid donors being used to randomize each test preventing the perception of any information sharing between analysts.

For more information and to order our competency tests, please visit our website at:

https://www.forensicassurance.com/product/dna-competency-test/

Please direct technical questions to Brandon Good at 248-773-5114 or email: bgood@forensicassurance.com

*** Note: Forensic Assurance is accredited under *ISO/IEC 17043: Conformity Assessment – General Requirements for Proficiency Testing.* Competency testing does not fall within our scope of accreditation.

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To order or to obtain a price list, please visit our website at

www.forensicassurance.com

or contact a member of our sales team:

William – (248) 962-3186 (william@forensicassurance.com)
Dorothy – (248) 962-3184 (dorothy@forensicassurance.com)