



SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

FORENSIC TESTING SERVICES (FTS)
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PROFICIENCY TESTING PROVIDER

Valid To: October 31, 2018

Certificate Number: 3667.01

In recognition of the successful completion of the A2LA evaluation process, this proficiency testing provider has been found to meet the ISO/IEC 17043:2010, "Conformity assessment-General Requirements for Proficiency Testing". Accreditation is granted to this provider to provide proficiency testing samples in the following programs:

<u>PROGRAM NAME</u>	<u>PROGRAM DESCRIPTION</u>	<u>SAMPLE DESCRIPTION</u>
Controlled Substance (Quantitative) ^{1,3}	Quantitative analysis of a known controlled substance or other analyte known to the participant.	Samples will consist of powdered mixtures containing a controlled substance or other analyte known to the participant. Test will be offered 2X per year or by customer request as a custom test.
Tape Examination ²	Comparison of cut or torn tapes (duct, electrical, strapping, etc.) to determine if they could have originated from the same source.	Samples will consist of a greater than a two inch sample mounted on a silicone coated backing material or other suitable medium; or bound upon itself. Test will be offered 1X per year or by customer request as a custom test.
Bulb Examination ²	Determination of whether an automotive bulb was on or off at the time of impact based on an examination of the bulb filament(s).	Samples are commercially available automotive bulbs damaged under laboratory controlled conditions. Test will be offered 1X per every other year or by customer request as a custom test.
Gunshot Residue (STUB) ²	Determination for the presence of gunshot residue on carbon taped stubs.	Sample substrate will consist of commercially available Zeiss type SEM stubs with carbon tape tabs. Test will be offered 1X per year.

<u>PROGRAM NAME</u>	<u>PROGRAM DESCRIPTION</u>	<u>SAMPLE DESCRIPTION</u>
Chemical Unknown ²	Evaluation of an unknown sample, either liquid or solid, to identify components, including adulterants.	Samples are prepared by adding a commercial chemical product to a beverage or may consist of a chemical that is encountered in the crime laboratory. Known or control materials may be provided in the test, which is designed to emulate actual casework. Test will be offered 1X per every other year or by customer request as a custom test.
Lubricant Examination ²	Evaluation of known and questioned lubricant samples to determine if they could have originated from the same source.	Samples will consist of a questioned swab with lubricant applied and three known comparison samples of lubricants. Known samples will consist of a sealed condom or at least one milliliter of known lubricant. Test will be offered 1X per year or by customer request as a custom test.
Clandestine Laboratory Chemical ²	Evaluation of liquid and solid samples to identify chemicals that may be utilized in the manufacture of illicit drugs.	Samples will be prepared utilizing commercially available chemical products. These chemical products may include precursors or other chemicals commonly utilized in the manufacture of drug product. Test will be offered 1X per every other year or by customer request as a custom test.
Physical Match ²	Evaluation of similar broken items to determine if there is a physical or fracture match between them.	Samples will be prepared utilizing commercially available materials. The materials will have a thickness equal to or greater than 2mm. Test will be offered 1X per every other year or by customer request as a custom test.
Fabric Damage ²	Evaluation of questioned fabric samples to determine the manner by which they have been damaged and whether the damage is fresh (unlaundered).	Samples will consist of three questioned samples of fabric each with a damaged area away from the fabric edge. An undamaged swatch of the same fabric will also be included as a control sample. Test will be offered 1X per year or by customer request as a custom test.



<u>PROGRAM NAME</u>	<u>PROGRAM DESCRIPTION</u>	<u>SAMPLE DESCRIPTION</u>
Forensic Hair Examination ²	Comparison of known and questioned hair samples to determine if they could have originated from the same source.	Samples will consist of pulled head or pubic hair from living or deceased humans. Known samples will consist of at least ten hairs and questioned samples of at least five hairs. Questioned samples will be consistent in their growth phase and/or presence or absence of root tissue. Test will be offered 1X per year or by customer request as a custom test.
Basic Hair Screening ²	Evaluation of questioned hair or hair-like samples to determine if they have a human or non-human source, if there is tissue adhering to the human hair or are in the anagen growth phase, and the somatic origin for human hairs.	Samples will consist of pulled head, pubic, or other body area hair from living or deceased humans, pulled animal hair, or known fiber strands. Each sample will contain two strands of only one of the following questioned hair types: human hairs; animal hairs; hair-like strands. Test will be offered 1X per year or by customer request as a custom test.
Low Explosives ²	Evaluation of burned and unburned materials to determine if they are consistent with low explosive or post blast explosive residue and to identify the major components present.	Test samples consist of burned or unburned commercial or improvised gunpowder or other pyrotechnic materials. Test will be offered 1X per year or by customer request as a custom test.
Tire Impression ²	Examination of tire impressions in order to determine if an impression could have originated from a particular tire.	Samples will consist of two digital photographs of questioned tire impressions and scans of at least four ~12" segments of known tire impressions along with digital photographs of each segment. Test will be offered 1X per year or by customer request as a custom test.
Controlled Substance (Qualitative) ²	Qualitative analysis of controlled substance(s) not known to the participant. This test may be targeted to particular controlled substance subclasses.	Samples will consist of solid (powder or plant material) or liquid form containing a controlled substance. Test will be offered by customer request as a custom test (Not on a regular schedule).



<u>PROGRAM NAME</u>	<u>PROGRAM DESCRIPTION</u>	<u>SAMPLE DESCRIPTION</u>
Flammables Analysis ²	Qualitative analysis of fire debris samples(s) to detect ignitable liquids foreign to the substrate. Participants will be required to classify any ignitable liquids detected using criteria found in ASTM E1618-14.	Samples will consist of a commercially available flammable liquid on a unburnt or partially burnt substrate. Ignitable liquids utilized shall appear in the SWGFEX Ignitable Liquids Reference Collection. Test will be offered by customer request as a custom test (Not on a regular schedule).
Glass Analysis ²	Comparison of known and questioned glass samples to determine if they could have originated from the same source.	Samples will consist of commercially available glass samples. Test will be offered by customer request as a custom test (Not on a regular schedule).
Paint Analysis ²	Comparison of known and questioned paint samples to determine if they could have originated from the same source. For automotive paint samples, participants may be asked to identify possible vehicles from which the sample originated.	Samples will consist of commercially available architectural or automotive paint samples. Test will be offered by customer request as a custom test (Not on a regular schedule).
Fiber Analysis ²	Comparison of known and questioned fiber samples to determine if they could have originated from the same source.	Samples will consist of commercially available fiber samples. Test will be offered by customer request as a custom test (Not on a regular schedule).
Footwear Impression ²	Examination of footwear impressions in order to determine if an impression could have originated from a particular shoe.	Samples will consist of two digital photographs of questioned footwear impressions and scans of known footwear impressions along with digital photographs of each outsole. Test will be offered by customer request as a custom test (Not on a regular schedule).
Microscopic Spermatozoa Identification ²	Evaluation of questioned biological smears on unstained glass slides to determine if spermatozoa are detected.	Samples will consist of biological smears on glass slides from living humans. Each sample will contain two slides and the test will be composed of at least three samples. Test will be offered 1X to 2X per year or by customer request as a custom test.



<u>PROGRAM NAME</u>	<u>PROGRAM DESCRIPTION</u>	<u>SAMPLE DESCRIPTION</u>
Toolmark ²	Evaluation of suspected tampered pharmaceutical seals for needle marks or other damage.	Samples will consist of polymer stoppers with or without needle toolmarks. Test will be offered by customer request as a custom test (Not on a regular schedule).

¹The assigned value multi-participant tests is calculated as the robust mean using the procedure described in ISO 13528:2015, Statistical methods for use in proficiency testing by interlaboratory comparisons – Annex C.

The consensus of participants' results is not traceable to any external reference, so although expressed in SI units, metrological traceability has not been established.

The uncertainty is estimated as:

$$u_{\text{rob mean}} = 1.25 * S_{\text{rob mean}} / \sqrt{p}$$

where:

$u_{\text{rob mean}}$ = robust mean standard uncertainty

$S_{\text{rob mean}}$ = robust mean standard deviation

p = number of results

The expanded uncertainty ($U_{\text{rob mean}}$) is the standard uncertainty multiplied by a coverage factor of 2, a level of confidence of approximately 95%.

²The assigned value is determined via consensus results of the participants. As the proficiency test is qualitative, no statistical analysis is used to measure participant's results, origin, metrological traceability and measurement uncertainty.

³The assigned value for single-participant (custom) tests is calculated from the manufacturer's information. The test is manufactured utilizing analytes and equipment that are metrologically traceable.

The uncertainty is estimated from calibration reports for the equipment utilized to manufacture the test.

The expanded uncertainty is the standard uncertainty multiplied by a coverage factor of 2, a level of confidence of approximately 95%.



Accredited Proficiency Testing Provider

A2LA has accredited

FORENSIC TESTING SERVICES (FTS)

Williamston, MI

This accreditation covers the specific proficiency testing schemes listed on the agreed upon Scope of Accreditation.

This provider is accredited in accordance with the recognized International Standard ISO/IEC 17043: 2010 *Conformity assessment - General requirements for proficiency testing*. This accreditation demonstrates technical competence for a defined scope and the operation of a quality management system.



Presented this 28th day of July 2014.

President & CEO
For the Accreditation Council
Certificate Number 3667.01
Valid to October 31, 2018
Revised March 7, 2017

For the proficiency testing schemes to which this accreditation applies, please refer to the provider's Scope of Accreditation.