

# SLED Forensic Lab Available Analysis

July 9, 2009

Section	Task Type/Service Request	Definitions/Descriptions of Available Service Requests.
<b>Drug Chemistry</b>		
	DC - Drug Analysis	
<b>DNA</b>		
	DNA - Fingernail scrapings/clippings	Presence of blood/tissue on fingernails or scrapings for foreign DNA
	DNA - Blood	Screening for presence of blood, if positive then DNA
	DNA - Semen	Screening for presence of semen, if positive then DNA
	DNA - Urine	Screening for presence of urine
	DNA - Touch	Possible DNA of person who may have handled evidence
	DNA - Saliva	Screening for presence of saliva, if positive then DNA
	DNA - Ownership	Possible DNA of wearer of an item of clothing
	DNA - Hair	If hairs with root present, then DNA
	DNA – Known standard	Known DNA standard for comparison to evidence profiles
	DNA – Other	For use ONLY when request doesn't fit into any previous category
<b>Evidence Control</b>		
	EC-Storage	<b>FOR USE BY SLED AGENTS ONLY - TEMPORARY EVIDENCE STORAGE - NO ANALYSIS</b>
<b>Evidence Processing</b>		
	EP - Trace Screening	Collection of debris/fibers from evidence items

## Firearms

FA - Firearms	In all submissions where a firearm and/or fired ammunition components (bullets, cartridge cases) are submitted for comparison, serial number restoration, etc., appropriate specimens are routinely submitted for IBIS entry after the firearms examination has been completed.
FA - IBIS only submission	Submissions of firearms that only need to be test fired for IBIS entry, submissions of test bullets and/or cartridge cases that only need to be entered into the IBIS
FA - Destruction	Destruction of weapons
FA - Toolmark Analysis	Requires a toolmarked specimen and a suspect tool that can be linked to a suspect by means of possession, latent prints, or DNA
FA - Other	Covers fracture comparisons and possibly other exams that we do not commonly conduct. For fractures, we need two or more firearm-related fractured items (firearm parts, tools, knives, etc.) for comparison. We also need to be able to link one of the fractured items to suspect by means of possession, latent prints, or DNA.

## Latent Prints

LP - Latents	Any cases requiring evidence processing to determine if latent prints are present. Also includes cases of developed latent prints when there is a suspect and / or victim fingerprint standards available for comparison.
LP- Footwear	Any cases of unknown footwear impressions (casts, photographs, lifts, etc.) being compared to submitted footwear standards.
LP - Tire Tread	Any cases of unknown tire tread impressions (casts, photographs, lifts, etc.) being compared to submitted tire tread standards
LP - AFIS only submission	Submissions of developed latent prints when there are no suspects and / or victim fingerprint standards available for comparison.
LP - Impression	Any cases of unknown impressions being compared to submitted known standards.

## Photo

PH - Digital Media Storage	<b>FOR USE BY SLED AGENTS ONLY</b>
PH - Photo processing	<b>FOR USE BY SLED AGENTS ONLY</b>

## Questioned Documents

QD - Handwriting	Any handwritten or hand printed document containing a questioned signature or extended writing
QD - Lottery	Any lottery ticket which has been altered or obliterated
QD - Typewriting	Any document which has been typed and the make and model of the typewriter is questioned
QD - Other	Any type of document not covered above such as charred, water-soaked, shredded documents, computer generated documents, mechanical impressions, etc.
QD - Indented Writing	Any document containing possible indented impressions such as bomb threats, bank robbery notes and threats to public officials

## Toxicology

TOX - Coroner Case	Any death other than a child fatality or traffic fatality. This includes, but is not limited to, homicide, suicide, or accidental death.
TOX - Criminal Sexual Assault	Samples submitted in a Sexual Assault case where testing for drugs that may be used for Drug Facilitated Sexual Assault (Date Rape) is requested.
TOX - DUI Blood	A DUI case where either blood only or blood and urine are submitted.
TOX - DUI Urine	A DUI case where only urine is submitted.
TOX - Child Fatality	Death of a person under the age of 18 where violence, neglect or any suspicious or unusual manner is suspected or when the death is unexpected and unexplained including, but not limited to, possible SIDS.
TOX - Traffic Fatality (victim)	Death of a person as a result of a traffic accident (within 4 hours of the accident). Includes drivers, passengers, pedestrians, and boat occupants.
TOX - Weapons of Mass Destruction	Samples of any type that are associated with possible WMD cases.
TOX - Other	Sample types that do not fit in any other Tox task type. Examples include suspected poisoned food, beverages, and moonshine.

## Trace

TR - Glass Analysis

Glass is used in a wide variety of applications. Glass can be broken during the commission of a crime and the evidence can be submitted to the Laboratory for analysis. Examples of items are: windows in burglaries, headlights in hit and run accidents, and bottles in assaults. Unknown glass fragments can be compared with standards or it may be possible to identify a substance as glass.

TR - Fiber Analysis

Fiber evidence can be encountered in vehicular hit and runs, burglaries, homicides, assaults, and sexual assaults. Fiber evidence can also aid in placing a suspect at a crime scene. When a violent action occurs, it is possible for fibers to be transferred from the suspect to the victim and vice versa. A hit and run victim may leave fibers from their clothing behind on the suspect vehicle. A rape victim's clothing may be cut by the suspect's knife and fibers may be found on the knife. A homicide or assault may include a violent struggle and there is the possibility of fiber transfer. A burglary suspect may rip their clothing while climbing in a broken window. Forensic scientists may be able to place a victim in a vehicle trunk from carpet fiber transfer. There are many other scenarios in which fiber evidence may be important but keep in mind that while fiber evidence can help place someone at a scene, if they had a reasonable expectation to be at that scene, the evidence is useless.

TR - GSR Analysis

GSR is the term used to describe the cloud that forms around a gun upon its discharge. This cloud contains metallic residue from the primer composition, the bullet, the cartridge case, and the barrel of the gun. This residue can and will deposit on any object in close proximity to the gun when it is fired. This includes the hands and clothing of the shooter and the hands and clothing of the victim. Items that are tested are GSR kits and clothing.

TR - Trace Other

There are many examinations that can be performed that are not listed. If there is uncertainty about the types of examinations that can be performed on an item, call the Trace Evidence Department. Departmental forensic scientists will instruct how to collect the evidence, what standards are needed, and what type of results can be expected. The majority of trace other examinations require that an unknown sample as well as a known standard be submitted. Some examples of trace other comparisons that can be performed are: wood, insulation, ink, dye, plastic, metal, lye, corrosive substances, and light filaments.

## Trace

TR - Bullet Hole Analysis	<p>When a gun is discharged, gunpowder particles exit the barrel, along with the bullet, and deposit in a pattern on the first object they come in contact with. This object is usually the shooting victim. A bullet hole examination is a test performed on the area around a bullet hole in the clothing of a shooting victim. The purpose of this test is to determine, if possible, the approximate distance the victim was from the gun at the time of the shooting. If distance is not an issue, this examination should not be requested. An approximate distance cannot be given if the gun and ammunition are not provided. The gun is not needed to report on a contact shot. Submit clothing, weapon, and ammunition for this examination.</p>
TR - Flammables	<p>An examination for flammables is a test to determine if an accelerant was used to start a fire. This evidence includes any item from a fire scene that needs to be tested for the presence of accelerants. Due to the nature of this evidence, it is extremely important to package it correctly. Items to be tested must be in a sealed metal can or sealed plastic bags approved for flammables.</p>
TR - Filament Analysis	See Trace Other
TR - Paint	<p>Paint evidence is commonly encountered in two types of situations: vehicular hit and run accidents and burglary cases. Normally, in a paint case, a known paint standard is compared to an unknown paint sample to determine if they came from the same source. This information can aid in placing the subject at the scene of the crime. Automotive paint can be found on the clothing of hit and run victims. This paint can be in the form of paint smears or intact paint chips. If the required layer structure is present on the paint chip, it may be possible to provide a make and model of the vehicle involved in the hit and run. Architectural paint can be found on the clothing or tools of a person suspected of breaking into a building. Items submitted for analysis are paint standards, unknown paint, clothing, and other items.</p>
TR - Explosives	<p>Explosives analysis can reveal if a pipe bomb or chemical reaction bomb was composed of ingredients that are classified as explosives. It is extremely important to follow the evidence submission guidelines when submitting a suspected explosive device. Forensic scientists can also determine if an item found in the suspect's possession could have been used to make the device.</p>