

FIREARM AND TOOLMARK SECTION

GUNSHOT RESIDUE (GSR) AND DISTANCE DETERMINATION

- **POSSIBLE EXAMINATIONS**

- Gunshot residues
 - Residues resulting from the discharge of a firearm
 - These residues may be present on the hands of the shooter
- Distance determination
 - Determination of the distance between the muzzle and the target at the time of firing
 - Must provide firearm and object with hole.
 - The same firearm and similar ammunition are used to create distance tests.
 - Please provide extra ammunition, similar to type used in incident, if possible.

- **GUNSHOT RESIDUE (GSR)**

- The Crime Laboratory does NOT test for gunshot residues
- Items of evidence requiring this testing can be swabbed and submitted externally
 - Collection Kits are available in the evidence receiving section of the Crime Laboratory

- **COLLECTION**

- CLOTHING
 - Wet or bloody clothing items or other fabrics must be air dried and packaged separately
 - If the item must be folded, place a piece of brown paper between the layers to prevent cross-contamination
- SCENE
 - Evidence may be present on a wall, door, or other large item that cannot be collected
 - Notify the Crime Laboratory for assistance – or -

- Request materials from the Crime Laboratory to chemically process the scene
 - Note: Photograph at every stage with the lens of the camera perpendicular to the surface
 - Include scales
 - Images may be submitted to the Crime Laboratory for examination via storage device
- FIREARM
 - Photograph the firearm in place prior to handling. Note:
 - Location found
 - Safety position
 - Loaded / Unloaded, Cocked
 - If possible, render the firearm safe
 - Remove any magazines
 - Remove cartridges from the chamber
 - Revolvers: Open or remove the revolver cylinder, or unload each chamber
 - If the firearm cannot be made safe (e.g., firearm is jammed, too corroded, or too rusted)
 - Put the safety on if possible
 - Secure only the firearm in a box
 - Indicate on the outside of the box:
 - Muzzle direction
 - That the firearm is UNSAFE
 - Notify the Crime Laboratory that the firearm is LOADED before or immediately upon arrival
 - During firearm submission, request a consultation with a firearms examiner
 - Document all changes made to the firearm once it is collected and notify the lab via photos and/or notations

- **PACKAGING AND LABELING**

- **CLOTHING / FABRIC ITEM**

- Wet or bloody clothing items or other fabrics must be air dried and packaged separately
 - Place the item in a paper bag or cardboard box
 - If the item must be folded, place a piece of brown paper between the layers to prevent cross-contamination
 - Tape Seal, Initial and Date the tape seal, and Label the packaging with contents
 - Ex) One (1) purple t-shirt with RBS taken from Jane Doe

- **FIREARM**

- Place the unloaded* firearm in a handgun or long gun box, with the slide locked back, if possible
 - Note: See above regarding loaded firearms.
 - Use cable ties to secure the grip and barrel of the firearm to the box
 - Keep cable tie knot inside of the box. Do not cut cable tie
 - DO NOT place a cable tie through the trigger guard, or through the barrel
 - If a magazine was recovered with the firearm:
 - Secure the magazine inside the same box with a cable tie
 - Magazines do not have to be unloaded
 - If cartridges were recovered with the firearm:
 - Unfired cartridges can be retained in the magazine, or packaged in a separate envelope inside the same box
 - Tape Seal the envelope, Initial and Date the tape seal, and Label the envelope with contents
 - Ex) Three (3) unfired 40 S&W cartridges from magazine
 - Ex) One (1) unfired 40 S&W cartridge from chamber
 - On the outer packaging, indicate clearly, with an arrow, which direction the muzzle is pointing inside the box

- Tape Seal the box, covering any holes created from the cable ties, Initial and Date the tape seal, and Label the box with contents
 - Ex) One (1) 9mm Luger Glock model 19Gen5 semi-automatic pistol with serial number: 12345, one (1) magazine, three (3) 9mm Luger cartridges, recovered from backseat of vehicle driven by John Doe, Placard A
 - If serial number is scratched, obliterated, rusted, or missing, note “Serial Number: Unknown” on packaging. A serial number restoration can be requested. See serial number restoration section.
- ENVIRONMENTAL CONDITIONS
 - If the firearm is found submerged in water:
 - Place the firearm in a leak proof container
 - Cover with water from the location the firearm was found
 - Keep it in that water and package in a leak proof container with water from where it was found
 - If the firearm is found in rain or snow:
 - Air dry before packaging
 - If the firearm is at potential risk for severe rust or has tissue putrefaction on it:
 - Package in a box and place in a freezer as soon as possible
 - Contact the Crime Laboratory as soon as possible