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INTRODUCTION

Many types of physical evidence are encountered in the investigation of crimes. It is difficult to describe all methods for collecting, marking, or packaging every conceivable type of evidence or to explain all examinations conducted by the laboratory. The Oklahoma State Bureau of Investigation Forensic Laboratory and Crime Scene Investigators have prepared this manual to meet the following objectives:

- To provide guidance for the proper methods of collecting and documenting physical evidence
- To inform officers of current methods for submission of evidence to the OSBI laboratories
- To inform officers of the services provided by the OSBI Criminalistics Services Division

The suggested procedures listed in this manual may not cover every type of crime scene or evidence type that an officer may encounter, but with the basic procedures suggested in this manual, the investigator will be able to properly document, collect, and preserve evidence of a crime.

EDITORIAL COMMENTS

This 2011 edition is being published to update the standardized procedures for collection, preservation, and submittal of items of evidence to the laboratory for forensic analysis. It has been coordinated through various agency sections to insure its universal consistency in the recommended procedures. Any questions/suggestions can be directed to OSBI Criminalistics Administrator responsible for overseeing the Physical Evidence discipline at (405) 330-6724.



This manual is organized to aid the officer from arrival at a crime scene to submission of evidence to the laboratory. Sections are meant to follow a logical order with references which can help facilitate finding any information quickly. This manual has five main sections:

Section I—Crime Scene Processing and Crime Scene Types

This section provides guidelines for crime scene processing and documentation and provides eight (8) examples of crime scenes that an investigating officer may encounter. Each example provides a list of typical evidence to look for at each type of scene.

Section II— Collection and Preservation of Evidence

This section provides procedures for collecting and preserving multiple types of evidence found at crime scenes.

Section III—Evidence Submission to a Laboratory for Analysis

This section provides procedures for documenting chain of custody and submitting evidentiary exhibits to the OSBI forensic laboratories.

Section IV—Laboratory Analysis

This section provides a description of the individual units of the OSBI laboratory. These descriptions include the types of evidence these units handle and the types of analysis that each unit can perform.

Section V—Glossary

This section provides definitions to technical terms and words with which the reader may not be initially familiar.



REQUESTING OSBI ASSISTANCE

FOR 24-HOUR ASSISTANCE

1-800-522-8523 (Criminalist)
1-800-522-8017 (Agent)

OSBI HEADQUARTERS

Address: 6600 N. Harvey
Oklahoma City, OK 73116-7912
Telephone: (405) 848-6724
Fax: (405) 843-3804

OSBI FORENSIC SCIENCE CENTER

Address: 800 E. 2nd Street
Edmond, OK 73034-5309
Telephone: (405) 330-6724
Fax: (405) 330-4732

OSBI McALESTER REGIONAL OFFICE AND LABORATORY

Address: 701 W. Carl Albert Parkway
McAlester, OK 74502
Telephone: (918) 423-6672
Fax: (918) 423-7586

OSBI TAHLEQUAH REGIONAL OFFICE AND LABORATORY

Address: 1995 Airport Parkway
Tahlequah, OK 74464
Telephone: (918) 456-0653
Fax: (918) 458-0037

OSBI ENID REGIONAL LABORATORY

Address: 1305 E. Owen K. Garriott Road
Enid, OK 73702
Telephone: (580) 242-2600
Fax: (580) 234-8707

OSBI WOODWARD REGIONAL INVESTIGATIVE OFFICE

Address: 2411 Williams Avenue
Woodward, OK 73801
Telephone: (580) 256-1771
Fax: (580) 254-5009



Evidence Collection Manual – Request for Assistance 2011, 1st Ed.

OSBI LAWTON REGIONAL OFFICE AND LABORATORY

Address: 5 NE 22nd Street
Lawton, OK 73507
Telephone: (580) 355-6144
Fax: (580) 353-7227

OSBI ANTLERS REGIONAL INVESTIGATIVE OFFICE

Address: 206 SW "C" Street
P. O. Box 765
Antlers OK 74523
Telephone: (580) 298-5525
Fax: (580) 298-3285

OSBI TULSA REGIONAL INVESTIGATIVE OFFICE

Address: 125 W. 15th, Suite 100
Tulsa, OK 74119
Telephone: (918) 582-9075
Fax: (918) 599-9437

OSBI WEATHERFORD REGIONAL INVESTIGATIVE OFFICE

Address: 1401 Lera Drive, Suite #5
Weatherford, OK 73096
Telephone: (580) 772-6724
Fax: (580) 772-2157

OSBI STILLWATER REGIONAL INVESTIGATIVE OFFICE

Address: 701 S. Lewis
P.O. Box 337
Stillwater, OK 74076
Telephone: (405) 707-0046
Fax: (405) 372-1386



REQUESTING ASSISTANCE FROM OTHER AGENCIES

DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ)

Oklahoma City Address: 707 N. Robinson Ave.
Oklahoma City, OK 73102
Telephone: (405) 702-6100

Tulsa Address: 3105 E. Skelly Drive
Tulsa, OK 74105
Telephone: (918) 293-1600

DRUG ENFORCEMENT ADMINISTRATION (DEA)

Oklahoma City Address: 9900 Broadway Extension
Oklahoma City, OK 73114-6323
Telephone: (405) 475-7500

Tulsa Address: 7615 E. 63rd Place
Tulsa, OK 74133-1216
Telephone: (918) 459-9600

Dallas Office Tele (24 Hours): (214) 366-6900

FEDERAL BUREAU OF INVESTIGATION (FBI)

Oklahoma City Address: 3301 W. Memorial Rd.
Oklahoma City, OK 73134
Telephone (24 Hours): (405) 290-7770



OFFICE OF THE CHIEF MEDICAL EXAMINER

Oklahoma City Address: 901 N. Stonewall
Oklahoma City, OK 73117
Telephone (24 Hours): (405) 239-7141
Fax: (405) 239-2430

Tulsa Address: 1115 W. 17th
Tulsa, OK 74107
Telephone (24 Hours): (918) 582-0985
Fax: (918) 585-1549

OKLAHOMA DEPARTMENT OF HUMAN SERVICES

Abuse and Neglect Hotline (24 Hours): 1-800-522-3511



**SPECIALIZED EVIDENCE COLLECTION KITS PROVIDED
BY THE OSBI**
(FREE OF CHARGE)

GUNSHOT RESIDUE EVIDENCE COLLECTION KIT (GSR KIT)

Gunshot residue evidence collection kits are available to law enforcement agencies and can be obtained from the OSBI Forensic Science Center or any local OSBI regional laboratory.

SEXUAL ASSAULT EVIDENCE COLLECTION KIT (RAPE KIT)

Sexual assault evidence collection kits are provided to hospitals ONLY. Contact the Forensic Science Center at (405) 330-6724 or at 1-800-522-8523 for further information.

NOTE: Sodium Fluoride/Potassium Oxalate (grey stopper) collection tubes for collecting blood that needs to be analyzed for drugs are not provided in OSBI sexual assault kits.

BLOOD ALCOHOL EVIDENCE COLLECTION KIT

Blood Alcohol kits are available to law enforcement agencies and can be obtained by calling (405) 330-6724 or 1-800-522-8523.

MARIHUANA FIELD TEST KIT

Marihuana field test kits are available to law enforcement agencies and can be obtained by calling (405) 330-6724 or 1-800-522-8523.

NOTE: Complete instructions are enclosed in or printed on the OSBI-provided kits. Please follow these instructions with NO DEVIATIONS. Any deviations may result in delays of analysis or could result in the laboratory being unable to analyze the evidence.



SECTION I: **CRIME SCENE PROCESSING AND CRIME SCENE TYPES**

This section of the manual is dedicated to providing guidelines for properly processing a crime scene. This manual lays out minimum recommended practices for crime scene processing. As circumstances dictate, it may be necessary to take additional steps to properly document and preserve the evidence found at the scene.

PRELIMINARY QUESTIONS AND OBSERVATIONS

The following are some questions that should be considered when encountering or arriving at a suspected crime scene:

- Is it really a crime scene? Do you need to be there?
- Is the scene safe from immediate threats to life and health such as armed individuals or dangerous gases?
- Is the scene secure from unnecessary individuals who may contaminate or disturb evidence that is present?
- Is the evidence protected from any environmental factors such as rain or high winds which may destroy evidence?
- Do you have a legal right to be in this scene? Do you have a search warrant or a signed consent-to-search form?
- Are you trained in crime scene processing? Do you have the sufficient equipment and supplies?
- What safety considerations and issues need to be addressed prior to entering the scene or situation? Such as:
 - Blood or other body fluids that may contain infectious disease
 - Hazardous situations such as potential ignition sources that would cause a fire
 - Confined spaces
 - Dangerous chemicals
 - Structural integrity



PERSONNEL ASSIGNMENTS

Personnel on the scene should have a purpose for being there, and everyone present should have a clearly defined role with duties that they have been properly trained to perform. Proper personnel assignments will help to prevent evidence from being collected improperly.

Some scenes may require fewer or additional roles than the ones listed here depending on the size and type of scene. Some individuals may have to assume multiple roles at a crime scene.

Example: The Technical Investigator may also act as a Photographer at a smaller crime scene. The following is a list of some potential roles which may be needed on a crime scene.

SCENE COORDINATOR (LEAD INVESTIGATOR)

The scene coordinator's or lead investigator's duties include but are not limited to assignments of duties to other officers, overseeing the documentation and collection of evidence, designating personnel who need to be in the scene, and directing operations in and around the scene. This person will also be gathering all the reports, logs, photographs, and other information gathered by other personnel to put in the case file.

PUBLIC INFORMATION OFFICER

The public information officer is responsible for gathering accurate information and relaying appropriate information about the scene and activities relating to the investigation to the appropriate entities which include but are not limited to agency or department heads, district attorneys, and media groups.

SECURITY OFFICER (PERIMETER/ACCESS CONTROL)

The security officer is in charge of perimeter control and/or keeping a crime scene log. This log needs to include a list of who enters and exits the crime scene and when individuals enter and exit the scene. The security officer is also responsible for placing proper signage and establishes the boundaries of the scene with crime scene tape if necessary to prevent any unauthorized individuals from entering the crime scene.



PHOTOGRAPHER

This individual will be responsible for taking photographs of the scene and each individual piece of evidence before it is collected. This individual will be responsible for maintaining a photographic log which details the number of photographs taken and what is being documented in each photograph. The photographer may also be responsible for taking video of the scene as well if necessary. See the section titled EQUIPMENT REQUIREMENTS on page 11 for more information on supplies needed for photographing a scene and the section titled Still/Video Photography on page 15 for more details concerning crime scene photography.

SKETCH ARTIST

The sketch artist will be responsible for drawing a sketch of the scene which shows the position and placement of the evidence being collected as well as any other relevant items. See the section titled Crime Scene Sketch on page 14 for more on crime scene sketches.

TECHNICAL INVESTIGATOR

The technical investigator is required to locate all evidence at the crime scene sometimes using specialized lighting or chemical techniques. The technical investigator is responsible for documenting the evidence through notes which include a location and description of the evidence as well as a unique identifier for the evidence. This person also insures that photographs have been taken of the evidence before it is collected. The technical investigator is responsible for collecting the evidence and packaging the evidence appropriately for submittal to the laboratory and to insure that there will be no contamination or deleterious change of the evidence. The technical investigator will then insure that the chain of custody of the evidence remains intact until the evidence is submitted to the laboratory for analysis.

NOTE: Detailed notes and documentation such as those found on the photographic log, sketch, and evidence log are essential in preparing a report.



EQUIPMENT REQUIREMENTS

Crime scenes require an investigator to carry equipment to help in the processing of the scene. The following is a list of equipment that should be available to a crime scene investigator when processing a crime scene. This list is the minimum that should be available to a crime scene investigator when on a crime scene. It is recommended that a crime scene processing kit be assembled with the following equipment included or a vehicle used for crime scene processing be stocked with the following:

PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE is designed to protect the investigator from hazards in the scene such as chemical or biological hazards. Some PPE can help prevent the contamination of the scene by the investigator. PPE must be appropriate to the scene being processed and must fit the individual that is wearing it. PPE that should be available includes but is not limited to:

- Latex and Nitrile gloves
- Shoe covers
- Head cover
- Disposable coveralls
- Nuisance mask
- Goggles
(or other eye-protection)
- Hand-soap/water
- Biohazard waste bags

PHOTOGRAPHY EQUIPMENT

Many different methods for photographing a scene are now available to crime scene investigators. Whether video, still, digital, or film photography is used, it is important that there is enough storage media present to document the scene. The film and memory cards should work in the camera being used and should be free of photos that are not related to the crime scene. Conditions in which the storage media and camera are stored can affect their reliability, so it is best to store the camera and media in a place free from extreme temperatures. Batteries should be charged, and extra batteries should be available in case they are needed. Equipment that should be ready and available includes but is not limited to:



- Camera for still photos (digital or film)
- Video camera (digital or film)
- Storage media (film, memory cards, CD)
- Batteries (appropriate to camera)
- Strobe
- Additional lighting
- High contrast ruler with scale

LATENT FINGERPRINT EQUIPMENT

Some training in the lifting of latent fingerprints would be recommended before processing a scene where lifting prints would be necessary. If necessary and the items of evidence are of a reasonable size, they can be collected and processed at the laboratory. Equipment that should be available for lifting latent prints includes but is not limited to:

- Lifting tape
- White 3x5 cards
- Brushes and fingerprint powder (powder for smooth, non-porous surfaces only)

EVIDENCE CONTAINERS

Proper packaging must be on hand at the crime scene to allow the crime scene investigators to package evidence properly to ensure that collected items will be free of contamination and prevent any deleterious change. Also, sharp objects such as knives, hatchets, razor blades, syringes, and others must be packaged into containers designed to hold sharp objects. This will help protect the evidence as well as anyone handling the evidence. Evidence containers that should be available include but are not limited to:

- Paper sacks of various sizes
- Boxes of various sizes
- Pill boxes
- Metal cans with tight-fitting lids
- Sheets of paper
- Envelopes
- Sample jars
- Plastic buckets (with vermiculite)
- Rolls of 'butcher' paper



SPECIALIZED EQUIPMENT

Some crime scenes require special equipment either for safety of the officers or for special types of evidence which must be collected. Training may be necessary before any of this equipment is used. Some specialized equipment that may be needed for some scenes includes but is not limited to:

- Nalgene® bottles with glass bottle inserts
- Self-contained breathing apparatus (SCBA)
- Respirator (full or half face) with appropriate cartridges
- Gun Shot Residue Evidence Collection Kit
- Evidence collection vacuum

OTHER SUPPLIES

These supplies are necessary for documenting, evidence collection, and other miscellaneous tasks that one may encounter at a crime scene. Depending on the scene additional supplies may be needed. If possible, it should be determined what additional supplies if any may be needed before crime scene personnel depart for a crime scene. These supplies include but are not limited to:

- Permanent markers
- Tags
- Evidence tape
- Devices for measuring long and short distances
- Scissors
- Perimeter barrier tape
- Single-use razor blades
- Forceps
- Disposable pipettes (to transfer liquids)
- Distilled Water
- Notepads
- Disposable pens
- Various tools (wrenches, pliers, hammer, screwdrivers, etc.)
- Marker flags
- Casting medium and forms
- Portable lights and extension cords
- Dental Floss
- Swabs



CRIME SCENE SKETCH/PHOTOGRAPHY

Proper documentation of activities conducted and evidence collected at a crime scene is essential. Critical to this is the proper use of crime scene photography and crime scene sketches. The following guidelines can be used to aid in properly documenting the processing of a crime scene through crime scene sketching and crime scene photography.

CRIME SCENE SKETCH

The crime scene sketch is a very important aspect of crime scene investigation. The crime scene sketch establishes a permanent record of items, conditions, and distance and size relations in the crime scene. Sketches act as a supplement to photographs in crime scene documentation. At a minimum, a crime scene sketch should include:

- Case identifier
- Date, time, and location
- Dimensions of rooms, furniture, doors, and windows
- Environmental conditions of the scene such as moist, humid, or dry
- Lighting conditions
- Approximate temperature
- Approximate wind direction and speed if appropriate
- The presence of precipitation such as rain, snow, or ice
- Distances between objects, persons, bodies, entrances, and exits (each object should be located by two measurements from non-movable items such as doors or walls)
- A key, legend, compass orientation, scale, scale disclaimer, or a combination of these features
- Enough information so that with photographs a complete re-creation of the scene can be performed at a later date, if required

Sketches are normally not drawn to scale. In cases where any diagram of the crime scene is not to scale include on the sketch or diagram the words "Not to Scale". The sketch or notes should have measurements and details for a drawn-to-scale diagram, if desired.

Any evidence identifiers and number designations should be the same as those that appear in the evidence log.



STILL VIDEO/PHOTOGRAPHY

Law enforcement personnel should insure that photographs and/or video tape recordings are taken when appropriate and feasible. Photographs and/or video tape recordings are a necessity when investigating a major crime scene.

Photographs and video tape recordings of crime scenes and associated evidence should normally be made in color unless black and white film or video depiction is required based on the nature of the evidence or application of unique processing techniques.

Initial photographs or video tapes should depict the crime scene as first observed without crime scene markers or other objects that are not a part of the scene. These photos will document the scene as it is when first encountered.

Depending upon the individual case facts, photographs/video tapes should generally include:

- General photographs/video to depict the overall scene. These should be taken from various points of view in order to assist in establishing a frame of reference; and
- Close up photographs/video of all major pieces of evidence to include the victim(s) in death investigation

Supplemental photographs/video should incorporate where appropriate:

- Disposable or laminated measuring ruler to serve as a frame of reference for comparison of size or distance
- Evidence markers to show the location of multiple pieces of evidence simultaneously in order to help establish the relationship between the various items

Basic information relating to photographs made at a crime scene should be documented in a photography log detailing the crime scene photography process. Information to be recorded should include for each photograph:

- Item number of photograph
- Identity of person taking photographs
- General narrative description of what is featured in the photographs or a notation as to why the photograph was taken



Video tapes taken at crime scenes should be labeled to include the following:

- Case number
- Date and time
- Name of Law enforcement personnel
- Location

Photographs and videos taken at a crime scene may be treated as evidence. The prints should be labeled with the agency case number, date, and name of person who took the photograph. If a photography log was completed, the item number from the photography log should be placed on the back of the corresponding photograph.

Any negatives or digital media should be stored in such a manner to prevent any type of damage or degradation.

If digital media was used and is to be reused on another crime scene, files from the media should be stored on a computer in their original format in a designated location that can be related to the pertinent case number. This computer should be backed up regularly to prevent loss of data in the event of a computer failure.



GENERAL PHYSICAL EVIDENCE COLLECTION

Proper crime scene processing is a must when investigating a crime. Certain events should take place in a certain order to insure that proper personnel are admitted to a scene to minimize chances of contamination or improper disturbance of the evidence, to properly document the state of all evidence, and to insure that no evidence be missed or improperly removed from the crime scene. Investigating personnel should do everything possible to take detailed notes regarding all aspects of the crime scene examination. Below are guidelines for searching for and collecting evidence.

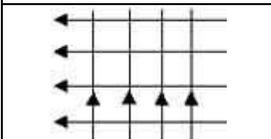
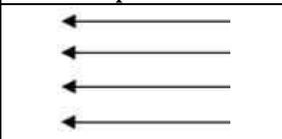
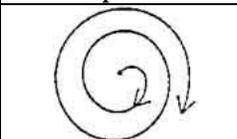
ONCE A CRIME HAS BEEN ESTABLISHED

Personnel responsible for processing the scene should be identified and assignments made to all officers on the scene. A perimeter should then be established that is wide enough to adequately encompass the area(s) where evidence may be found. Those personnel that are to be in the scene should be recognized, and all other personnel should remain outside of the established scene perimeter. Any person who crosses into the zone established as the crime scene must be documented on the crime scene log. See the section titled Security Officer on page 9.

Initial photographs from multiple angles around the perimeter of the scene should be taken by the crime scene photographer before anyone enters the scene. See the section titled Still/Video Photography on page 15 for more details concerning crime scene photography.

CRIME SCENE SEARCHING

Use one of the following search patterns:

Grid	Strip or Lane	Spiral
		



For searching a space, search an entire (general) space, such as a room, first. While performing this stage of the search take general photographs without any evidence markers present and note the condition of the space and items that are present. Then while continuing with the search pattern flag or note smaller items of relevant evidence, and take general photographs of the space with the markers in place. Search entrances, exits and foot-traffic routes. Once the general search is completed, move to each flagged piece of evidence and document the item of evidence with its identifier, description, and location.

NOTE: Anytime that an individual is present in the crime scene gloves must be worn to avoid leaving fingerprints or DNA and for protection from chemical and biological hazards. Gloves need to be changed often to prevent contamination and cross contamination of evidence.

EVIDENCE DOCUMENTATION AND COLLECTION

Once all evidence has been located and flagged, photograph each item in place with evidence markers before collection and document the item of evidence with its identifier, description and location on the photographic log. Mark evidence locations on the crime sketch as well. Mark evidence locations on the sketch. See the section titled Crime Scene Sketch on page 14 for more on crime scene sketches.

First collect any evidence that is most easily lost (transitory) or contaminated. It is then recommended that evidence be collected in a pattern similar to the search, so that the order of item numbers found will match closely with the order they were collected. Complete the evidence log with notations for each item of evidence. If feasible, have one person serve as evidence custodian to maintain all collected evidence.

If possible, two scene investigators should observe:

- Evidence in place (prior to movement)
- Evidence during recovery
- Evidence being marked for identification
- Paperwork, packaging, and other information for correctness



Once evidence has been recovered, do not excessively handle the evidence.

Prevent contamination of evidence by packaging, sealing, and labeling items separately at the scene. This will also prevent any errors from being made and provide a complete and secure chain of custody.

It may be necessary to obtain known standards. This may be the case if trace evidence or DNA evidence has been collected. If available, collect known standards such as:

- Known DNA samples from the victim. See the section titled DNA COMPARISON STANDARD on page 54 of this manual
- Known DNA samples from any suspects (if available and can legally obtain). See the section titled DNA COMPARISON STANDARD on page 54 of this manual

NOTE: In some cases, a suspect may be believed to have a DNA profile in CODIS due to prior illegal activity. By statute, the profile in CODIS cannot be used as evidence and cannot substitute as a known for the individual. At some point, if the identity of a suspect is known, a known DNA reference sample will be needed to determine if any DNA present is from him/her.

- Known fiber samples such as from carpet or clothing victim/suspect if a fiber match is to be attempted
- Known hair samples. See the section titled HAIRS AND FIBERS on page 71 of this manual
- Known footwear exemplars such as shoes from victim and suspect if footwear comparison is needed
- Known tire exemplar if tire track comparison is needed. See the section titled Comparison standards - Impressions on page 75 of this manual

Make a complete final evaluation of the crime scene checking for any other potential evidence that may have been overlooked in the initial search. Be sure to make a careful final search. Since this will typically come at the end of possibly several hours of work, there is potential that fatigue could cause an investigator to not be as alert to possible evidence as when the initial search was done. It is often helpful to have more than one person aid in conducting this final search.

Once all investigating personnel agree that no evidence remains to be collected, all packaged and sealed evidence should be assigned to one individual for transport and log-in to the agency's property room. All equipment and used PPE should be cleaned up and/or properly disposed.



In some situations, a scene may need to remain secured. If that is the case, all signage designating the perimeter of the scene should remain in place, and at least one security officer should remain, or if the scene is a vehicle, the vehicle should be stored in a secure location that is protected from the elements and has limited access.

Ensure that each piece of evidence is packaged in an evidence container that is properly sealed, that the seal is initialed and dated, and that the container is marked with a descriptor of its contents.

CRIME SCENE REPORT

Following the processing of a crime scene a report should be written. This report will be the record of the events at the crime scene which may be used in a court of law. The report should be as complete and detailed as possible, and should rely on the notes, sketches, photographs, and logs taken at the crime scene. The following information should be present in a crime scene report:

- Date and time of arrival at the scene
- Location of the scene
- Name of the victims and suspects, if known
- Who reported the crime and to whom
- Narrative describing the scene
- Description of processing procedures including:
 - o The names of individuals involved in the processing and their roles
 - o Areas within crime scene where processing occurred
 - o Whether photographs/video were taken
 - o Number of photographs
 - o Whether measurements were made
- List of physical evidence recovered including:
 - o Description
 - o Location from which the evidence was recovered
 - o Disposition

Once complete, all supporting documentation as well as a copy of the report should be placed into the case file. If charges are filed, a copy of the report along with a list of available documentation from the scene should be made available to the appropriate prosecuting authority.



CRIME SCENE EXAMPLES

Below are examples of potential crimes which an officer may encounter. Brief descriptions of the crime along with important items of evidence to look for are included. This is not a complete list of crime scenes which may be encountered or types of evidence from each scene that may need to be collected. If an officer feels that more or less evidence needs to be collected, it is up to that investigator to rely on training and experience to make that decision.

Before investigating any type of scene, be sure to answer the questions listed on page 8 of this manual. The most important questions to answer besides the ones regarding officer safety are the questions determining the legal right to be in the scene. It is very important before any evidence processing occurs that the right to be in any scene and scope of any search be clearly established and understood. Any ambiguity that is not dealt with prior to the search could lead to evidence not being admitted into court and civil action being taken against an agency or its officers.

The examples of crimes scenes in the following sections include:

ARMED ASSAULT	page 22
ARSON	page 27
BURGLARY	page 30
CLANDESTINE LABORATORY	page 33
HIT AND RUN	page 39
CONTROLLED SUBSTANCES	page 42
SEXUAL ASSAULT	page 45
HOMICIDE	page 49



ARMED ASSAULT

An armed assault for the purposes of this manual involves an attack of one person or a number of people by one or more individuals and involves the use of a weapon which can include but is not limited to firearms, stabbing/cutting instruments, or blunt force instruments.

The assault can be “attempted” which means no contact was made or no physical injury was made to the person(s) being assaulted.

The assault may have been completed whereby one or more individuals may have sustained physical injuries but are alive.

An armed assault may occur in combination with other crimes. For information in processing crime scenes that have occurred in conjunction with an armed assault see the following sections:

- ARSON page 27
- BURGLARY page 30
- SEXUAL ASSAULT page 45
- HOMICIDE page 49

For evidence collection procedures see GENERAL PHYSICAL EVIDENCE COLLECTION on page 17 of this manual.

ARMED ASSAULT WITH A FIREARM

When investigating the scene of a suspected assault with a firearm, recovery of the weapon used is of primary concern. The gun can be examined for:

- Weapon type which can establish if this was the type of weapon used in the assault
- Microscopic analysis which may be able to determine if recovered bullets and/or casings were fired from the weapon



- Serial number or serial number restoration (if obliterated) which can possibly provide the identity of the last owner or the last person known to be in possession of the weapon. Make note of any visible serial numbers in the crime scene notes
- Distance determination which can be done with some firearms.
- Victim or suspect blood/DNA which can establish a connection between the weapon and the victim/suspect
- Latent prints

NOTE: A choice may need to be made as to whether prints or DNA analysis is needed since in many cases only one analysis can be performed. Case circumstances and discussions with analysts can assist in making this determination.

- Database searching which can for some firearms connect them to other unsolved crimes

While searching the scene, locating projectiles or spent cartridges are important if it is believed that a gun has been fired. Careful search techniques may be required as this evidence can be hard to find at times. Cartridges and projectiles can be analyzed for:

- Trajectories which can help establish the position of a shooter. Cartridges and projectiles are a part of trajectory analysis. Good photographs of the projectiles/cartridges before they are disturbed with scales and sketches with measurements to establish the position of the cartridges and projectiles are critical.

NOTE: Never insert rods or other objects into bullet holes unless you have specific training to determine bullet trajectory.

- Caliber which can help to narrow down the types of suspected weapons especially if a weapon has not been recovered
- Microscopic analysis which may be able to determine if the projectile/cartridge were fired from a suspected weapon
- Latent prints
- Victim and/or suspect DNA



NOTE: A choice may need to be made as to whether prints or DNA analysis is needed since in many cases only one analysis can be performed. Case circumstances and discussions with analysts can assist in making this determination.

In cases where a shotgun may have been the weapon, collecting spent shotgun wads is also important.

Blood evidence may also be found at the scene. If the blood is present in large amounts, representative sampling is recommended. If blood is present in a small amount or on small items, collection of the entire item or entire stain may be the best option. Experience and case circumstances will dictate what samples of blood will need to be collected.

It is always a good idea to collect blood evidence if it is present at a scene; however, in some cases it may not be necessary to analyze the blood especially if the source of the blood is obvious and present such as a deceased victim lying in a pool of blood. In some cases, where an assault is suspected, but no obvious victim is present or the suspect may be wounded, then it may be critical for the blood to be analyzed to identify its source.

Bloodstain patterns (or “bloodspatter”) may also be present at the scene which may be important. Bloodstain pattern analysis can help to reconstruct a scene. In photographing spattered blood, it is very important to provide scales in the photographs along with accurate sketches and measurements to show positioning of items, and to take all photographs at 90 degree angles with respect to the stain to avoid contorting bloodstain patterns in the photograph. In cases in which a bloodstain pattern expert would be beneficial, officers should contact the OSBI to request assistance.

Gunshot residue may also be able to be collected to help establish if a suspect might have recently fired a gun. Use an OSBI gunshot residue collection kit for sample collection (see section titled “Specialized Kits” near the front of this manual and Section II: Collection and Preservation of Evidence, Part V).

Victim’s clothing should be collected. It can be analyzed for gunpowder residues at the entry holes on victim’s clothing which may help establish the distance from which a shot was fired.

NOTE: Gunshot residue evidence collection kits are not routinely performed on victim clothing.



Suspect's clothing (if available) should be collected and analyzed for:

- Victim's blood
- Gunpowder residue

ARMED ASSAULT WITH A STABBING/CUTTING/BLUNT FORCE INSTRUMENT

When investigating the scene of a suspected assault with a stabbing/cutting instrument or blunt force instrument, recovery of the weapon used is of primary concern. The weapon can be examined for:

- Weapon type which can establish if this was the type of weapon used in the assault
- Victim and/or suspect blood/DNA
- Latent prints

NOTE: A choice may need to be made as to whether prints or DNA analysis is needed since in many cases only one analysis can be performed. Case circumstances and discussions with analysts can assist in making this determination.

- Victim and/or suspect hair/fiber evidence

Blood evidence may also be found at the scene. If the blood is present in large amounts, representative sampling is recommended. If blood is present in small amounts or on small items, collection of the entire item or entire stain may be the best option. Experience and case circumstances will dictate what samples of blood will need to be collected.

NOTE: It is always a good idea to collect blood evidence if it is present at a scene; however, in some cases it may not be necessary to analyze the blood, especially if the source of the blood is obvious and present such as a deceased victim lying in a pool of blood. In some cases, no obvious victim is present or the suspect may be wounded, then analysis of the blood may be necessary to identify its source.



Bloodstain patterns (or “bloodspatter”) may also be present at the scene which may be important. Bloodstain patterns can help to reconstruct a scene, and in cases where stabbings or beatings are suspected, a great deal of blood may be present which might yield a large amount of information as to what took place. In photographing bloodstain patterns, it is very important to provide scales in the photographs along with accurate sketches and measurements to show positioning of items. In some cases having a bloodstain pattern expert would be beneficial.

Victim’s clothing should be collected. It can be analyzed for:

- Suspect’s DNA from items such as bloodstains that do not appear consistent with stains from victim, possible foreign hairs, or saliva
- Fibers from suspect’s clothing

Suspect’s clothing (if available) should be collected and analyzed for:

- Victim’s DNA from bloodstains, hairs, or saliva
- Fibers from victim’s clothing

In any type of assault, additional evidence may be present such as:

- Cigarette butts for DNA of suspect
- Torn clothing for DNA of suspect or fiber match to suspect’s clothing
- Cell phones/PDAs for calls or messages between suspect and victim. If the suspect’s cell phone or cell phone number is attainable, location information for the suspect before or after the assault may be determinable
- Computers for emails between suspect and victim
- Footwear impressions
- Additional surfaces which may yield fingerprints



ARSON

For the purposes of this manual, arson will involve the intentional burning of a building or vehicle by one or more persons that may or may not involve the death of the victim(s).

The arson can be “attempted” which means no structure or person was harmed, but some of the materials were present with the intent of committing arson.

Arson may occur in combination with other crimes. For information in processing crime scenes that have occurred in conjunction with arson see the following sections:

- ARMED ASSAULT page 22
- BURGLARY page 30
- HOMICIDE page 49
- SEXUAL ASSAULT page 45

For evidence collection procedures see GENERAL PHYSICAL EVIDENCE COLLECTION on page 17 of this manual.

When investigating the scene of a suspected arson, the main objective is to determine the point(s) where the fire was started. Photographing the scene prior to collecting or moving anything is very important. Be sure to photograph anything that appears to be out of the ordinary including any odd scorching patterns.

During the search, look for scorch patterns to determine directions of movement and areas of greatest heat intensity of the fire. Also, look for items that appear to be out of place or could have been used as fuel for the fire. Make note of anything that seems to be out of place, and include the information in the crime scene sketch.



Check to see if the ordinary fire protection devices in the building have been tampered with or altered. Inspect electrical outlets, electrical connections, and fuse boxes to see if they have been damaged intentionally. Take notes concerning any significant observations you make.

If multiple points of origin are suspected, look for incendiary devices/ignitable trailers.

Look to see if anything is missing from the scene that should be present. Note those items. If a suspect is developed or known, these items may be found in their possession.

Collect evidence to determine possible accelerants. This evidence includes:

- Ashes and soot which are peculiar in color
- Any items that have odd odors or odors of an ignitable liquid
- Any oily or unusual residues
- Any wet or stained materials
- Any apparent ignitable liquids such as lighter fluids or gas cans that contain liquids.
- Broken glass or pieces of metal which could have been from an explosive or incendiary device

All residues and samples should be collected into clean, unused (preferably lined) cans and labeled as to the location where collected. See the section titled **IGNITABLE LIQUIDS/RESIDUES** on page 54 of this manual for more information.

If the arson involves the death or injury to another person, collect the clothes from the victim to be examined for ignitable liquids.

Look for anything that might indicate a clandestine laboratory operation such as containers with unknown liquids, glassware (household or scientific) collected in one place, large amounts of lithium batteries, or any unexplained apparatus.

Search the scene or any possible disposal sites in the vicinity of the scene for a container that could have contained an ignitable liquid.



Examine doors and windows for evidence of being forced open. When searching these look for:

- Tool marks which may be present and may be able to be matched back to a tool that belongs to a suspect
- Broken glass which may have blood evidence present that can be tested for DNA

Additional evidence may be present such as:

- Cigarette butts for DNA of suspect
- Torn clothing for DNA of suspect or fiber match to suspect's clothing
- Footwear impressions/Tire tracks
- Unburned surfaces or other objects which may yield fingerprints
- Blood evidence that has been protected from the fire or any extinguishing agents



BURGLARY

For the purposes of this manual, a burglary will involve the forced entrance of one person into a home or other structure where they have no legal right to be for any reason.

The burglary can be “attempted” which means no entrance was made.

Victims are living and may have witnessed the crime.

A burglary may occur in combination with other crimes. For information in processing crime scenes that have occurred in conjunction with a burglary see the following sections:

- ARMED ASSAULT page 22
- ARSON page 27
- HOMICIDE page 49
- SEXUAL ASSAULT page 45

For evidence collection procedures see GENERAL PHYSICAL EVIDENCE COLLECTION on page 17 of this manual.

When investigating the scene of a suspected burglary, attempt to determine the point of entry by looking for:

- Broken windows or doors
- Tool marks indicating forced entry
- Other means of access such as holes, crawlspaces, pet doors, etc.

Search the interior of the structure for areas where a suspect would most likely touch and thus potentially leave fingerprints. Examples could include:

- Doorknobs
- Windowsills
- Glass



Search for areas where footwear pattern or impression could be observed. Examples could include:

- Footprints could be left on doors if they appear to have been kicked open.
- Impressions in dirt or mud found under a broken window.

Search for any additional signs of tool marks.

Search for anything that appears to possibly be suspect blood/DNA evidence. This would be especially true in cases where glass has been broken.

If broken glass is found at the scene, it is a good idea to collect some fragments. Broken glass could transfer from the scene to the suspect. If a suspect is developed in the case, glass may be present on their person, clothes, or possessions. Therefore, the glass fragments from the scene can be used as a known exemplar to compare to any glass found on the suspect.

If chipped paint is observed, collect some paint chips to be used as a known exemplar. If a suspect is known or developed and if that person is found to have paint on their person or on any possessions, that paint may be able to be compared to the paint from the scene.

Search for fiber/hair evidence. This is especially true for any areas that contain edges which could snag clothing such as broken glass, nails, or fractured wood.

Examine areas of possible approach to the point of entry or possible exit routes for signs of evidence such as:

- Footwear impressions
- Tire tracks
- Any item that may have been left behind by a suspect, such as:
 - o Cigarette butts which may yield suspect DNA
 - o Beverage bottles or cans which may yield suspect DNA or fingerprints
 - o Clothing items or gloves which may yield suspect DNA



Search the interior of the structure for areas where a suspect would most likely touch and thus potentially leave fingerprints. Examples could include:

- Tables, floor or walls around/near a window that is the point of entry
- Doorknobs that were possibly opened or closed by a suspected intruder
- Drawers or cabinets that may have been opened
- Surfaces from which items were known to have been taken, or
- Small items that appear to have been moved. Collect these for submittal

Look for items that are out of place and may have been left behind by an intruder. Examples could include:

- Cigarette butts which can be analyzed for suspect DNA
- Beverage bottles or cans which may yield suspect DNA or fingerprints
- Clothing items or gloves which may yield suspect DNA, or
- Any stains that appear to be body fluids which cannot be explained by the victim(s)

Obtain a list of items that appear to have been taken. The list should contain a description of each item and serial numbers if available.



CLANDESTINE LABORATORY

For the purposes of this manual, a clandestine laboratory will involve any illicit manufacture of:

- A controlled substance as listed in Title 63 of the Oklahoma State Statutes
- A device or material that could be considered an explosive
- Illegal biological or chemical agents
- Any other substances or devices that are designed to cause harm to any individuals.
- The illegal manufacture and distillation of alcohol

The manufacture can be “attempted” which means materials for the manufacture are present but have not been put together to actually produce the final product.

Clandestine laboratories offer many hazards to investigating officers including but not limited to:

- Unknown atmospheres
- Chemical hazards/agents
- Flammable chemical vapors
- Explosive devices
- Confined spaces
- Infectious agents

CLANDESTINE DRUG LABORATORY

When investigating the scene of a suspected clandestine drug manufacturing scene, no one should be present in the scene of a clandestine drug laboratory that has not been through a Drug Enforcement Administration (DEA) Clandestine Laboratory Investigation course or a course that provides equivalent training and certification. All responders must be current on their annual recertification. If no responders have been trained in the investigation of a clandestine laboratory scene, then the scene should be secured and help requested from the local Drug Task Force.



DRUG TASK FORCE NUMBERS

District #1	580.338.3388	District #17	580.286.7611
District #2	580.225.2535	District #20	580.226.7920
District #3	580.482.4850	District #21	405.801.2591
District #5	580.585.4415	District #22	580.436.1166
District #6	405.224.4770	District #23	405.275.6878
District #10	918.287.2199	District #24	918.623.1411
District #11	918.338.4028	District #25	918.759.2450
District #12	918.341.3164	District #26	580.256.8422
District #13	918.540.0866	District #27	918.485.2058
District #16	918.647.2245		

Because specialized training courses exist for the investigation of clandestine drug laboratories, safety issues and personal protective equipment (PPE) guidelines will not be covered in this manual. However, appropriate PPE must be worn in accordance with OSHA regulations when investigating clandestine drug laboratories. This manual will address evidence collection as it pertains to submittal to OSBI laboratories and Oklahoma State Laws.

The type of drug being manufactured should be determined. This can be evidenced by the items present at the scene such as the raw materials present, apparatuses that are present, computer searches, and statements by the suspect and other individuals in and around the area. If the drug being manufactured is a very potent drug in low doses such as fentanyl or LSD or the chemicals involved can compromise any safety equipment, then the scene should be secured and help requested.

The procedures for documenting and collecting the evidence from a clandestine drug laboratory differ from those laid out in the section GENERAL PHYSICAL EVIDENCE COLLECTION on page 17 of this manual.

The following are guidelines for the investigation of a clandestine drug manufacturing scene:

When photographing the scene take photographs outside of the home or structure containing the laboratory or of the surrounding area including intersection signage to establish the location of the scene.



Take general photographs of rooms containing items connected to the manufacturing process showing the condition of the scene and positions of all items before any processing occurs.

In most cases, detailed searches of the scene for trace evidence are unnecessary; however, if another crime besides the clandestine laboratory is believed to have occurred, then detailed searches are necessary. If so, follow the guidelines laid out in the section For GENERAL PHYSICAL EVIDENCE COLLECTION on page 17 of this manual.

Provide an evidence marker to the item of evidence and photograph prior to moving the item.

Note the location within the scene where each item was found.

Photograph and note any legible labels on any of the precursors or chemicals present in the scene. Document any manufacturer names, brand names, and other identifying markings such as lot numbers. In some cases it may be possible to trace the information from these labels back to a place where the item was purchased.

This could aid in the prosecution of the suspect or lead to additional prosecution of individuals supplying clandestine drug manufacturers.

Clandestine drug laboratories differ from other scenes in that the chemicals and materials used to manufacture the illegal drug are considered hazardous waste and have to be destroyed accordingly. Photographs are used to document the items present that are suspected of having been used to manufacture the illegal substances. Items that need to be photographed but not collected include but are not limited to:

- Chemicals in labeled containers that do not appear to have been opened
- Items such as clean coffee filters, clean funnels, clean tubing, aluminum foil, tape, or clean glass wear
- Suspected hydrogen chloride gas generators. A test for pH can be done at the scene if necessary, but the item does not need to be collected
- Tanks suspected to have contained ammonia
- Lithium batteries (includes whole or dismantled batteries)



Some items at a clandestine laboratory scene will require that a photograph be taken followed by samples being taken from the item, and then the bulk item being destroyed. Items that should be sampled include but are not limited to:

- Containers which contain unknown chemicals
- Liquids that appear to have multiple layers. Both layers should be sampled and can be placed into the same or separate containers. Be sure to label appropriately in either case
- Containers with liquids and sediment
- Containers which hold suspected iodine or iodine tincture

NOTE: For proper destruction of hazardous materials from a clandestine drug laboratory scene, contact the Oklahoma Bureau of Narcotics and Dangerous Drugs (OBNDD) for the appropriate contracted waste disposal company. OBNDD will provide direction on the disposal of these items.

Some items that require collecting from a clandestine drug laboratory include but are not limited to:

- Items with residue such as containers, glassware, tubing, funnels, spoons, or coffee filters
- Any finished product
- Any phosphorus
- Any precursor chemicals. If a precursor is present in a large quantity and it is possible to tell at the scene approximately how much precursor is present, a photograph and sample should suffice for analysis. If it is not possible to determine the amount of precursor either by label or weight, then all of the precursor chemicals should be collected.

Fingerprints may also be present on some items. It is best if fingerprints can be taken at the scene to avoid having to transport chemicals. However, if it is not possible to collect fingerprints at the scene, the following items of evidence are good items to submit for fingerprint processing:

- Glassware that appears to be free of sticky or oily residues on the outside of the glass
- Metal cans or containers
- Plastic bottles or funnels which are free of most residue on the outside



“One Pot” or “Shake and Bake” clandestine laboratories may present additional hazards. The following are special precautions that should be taken when sampling these clandestine laboratories:

- If the reaction is still going upon arrival, the reaction can either be allowed to finish or stopped by slowly opening the container to relieve the pressure while leaving the lid on the container
- Do not pour out the contents of the reaction container
- If the reaction container is moved to sample the contents, move the container to a well-ventilated area away from flammable liquids
- The liquid in the reaction container will most likely contain the Methamphetamine and un-reacted Pseudoephedrine/Ephedrine
- When collecting the sample be careful not to disturb the solid layer at the bottom of the container
- A 25 milliliter sample is sufficient
- If the liquid has already evaporated, most likely the Methamphetamine has also evaporated, but a sample of the solid material from the reaction container can be submitted
- Do not submit the entire container to the laboratory for analysis

CLANDESTINE BOMB, CHEMICAL OR BIOLOGICAL AGENT MANUFACTURING SCENE

When investigating the scene of a suspected clandestine bomb or chemical or biological agent manufacturing scene, safety of individuals in and around that scene is of paramount concern. Unless individuals have had special training in the investigation of a bomb or chemical or biological agent manufacturing operation, the scene should be secured and help requested.

If chemical or biological agents are believed to have been manufactured, an evacuation should be made of the immediate area and any area downwind from the scene that may be exposed should an accidental release occur.

Some intermediate products in an explosive manufacturing operation can be explosive and more unstable than a final product. It is recommended that items not be moved until trained personnel arrive at the scene.

Under NO circumstances should explosive devices, chemical or biological agents be collected and submitted to an OSBI laboratory for analysis.



ANY OTHER CLANDESTINE LABORATORY SCENE

When investigating any other type of clandestine laboratory scene, investigators should attempt to determine what is suspected of being manufactured. This can be evidenced by the items present at the scene such as the raw materials, apparatus, computer searches, and statements by the suspect and other individuals in and around the area.

The scene should be photographed in a similar manner to that listed in the section dealing with a clandestine drug manufacturing scene. See page 34 for more information.

Raw materials should be collected or sampled. Raw materials that are present in small amounts or are illegal in nature and provide a charge for their possession should be collected in their entirety. Raw materials that are present in bulk but do not incur a charge for their possession should be sampled. If the raw materials are sampled, then the bulk material should be destroyed.

Any materials that appear to be intermediate products in the manufacturing process should be collected or sampled using similar procedures listed for raw materials.

Any materials that appear to be final product should be collected. In most cases, the entire item believed to be final product should be collected.

Items such as those listed in the section on clandestine drug manufacture may need to be processed or collected for fingerprints. See page 36 for more information.

When investigating any type of clandestine laboratory scene, it may be helpful to the investigation to seize any computer, cell phones, or PDA's that belong to the suspect(s). These can provide valuable evidence to aid in the prosecution of the suspect(s) or determine the size of the operation and help identify other individuals who may be involved with the operation.

NOTE: It is important that any search warrant or consent to search list computers, cell phones, and PDA's in them if they are to be seized and searched.

Cell phone records can also be obtained. A warrant may be required. Check with the cell phone provider for more information about what records you can access.

Some information is time sensitive, such as content of text messages, so it is imperative that once it is determined the cell phone records would be beneficial, that all procedures be followed to obtain them.



HIT AND RUN

For the purposes of this manual, a hit and run will involve any of the following:

- The striking of a person, vehicle, or other property by a suspect's vehicle with the suspect's vehicle leaving the scene
- Victims are living but may not be able to assist right away in determining events of the crime if physical injuries are involved
- The striking of the person, vehicle, or other property could be by accident, intentional, or the result of impairment

A hit and run may result in a homicide. For information in processing crime scenes that involve a homicide see the section titled HOMICIDE (See page 49).

For evidence collection procedures see GENERAL PHYSICAL EVIDENCE COLLECTION on page 17 of this manual.

When investigating the scene of a hit and run statements of the victim(s) or witness(es) about the description of the car should be taken and evaluated. Vehicle descriptions should be made available to other officers who may be in the area as soon as possible.

Photograph the entire scene including any skid marks, tire tracks or impressions, and suspected points of impact to individuals, vehicles, or property. Photograph damage to other vehicles or property along with position of any debris. Supplement the photography with a crime scene sketch.

Note the length of skid marks, where they start, and where they end. Supplement this documentation with a crime scene sketch. See section titled Crime Scene Sketch on page 14.

Tire tracks may be important evidence, and these can be collected with the use of casting materials in some cases. See the section titled Comparison standards - Impressions on page 75 of this manual for more information.

Search the scene and the area surrounding the scene for evidence. Look for possible paint transferred from the suspect vehicle onto the victim vehicle or item of property. Collect any paint that does not appear to match the color of the victim vehicle or the item of property.



If debris is present and does not appear to originate from anything currently at the scene or if it is believed to have been a part of the suspect vehicle, then the debris should be collected. This could include but is not limited to:

- Broken glass
- Chrome fragments
- Plastic components
- Decorative metals
- Paint chips
- Mud, dirt, and vegetable matter appearing to be uncommon to the area

If the debris appears to have come from a vehicle or property at the scene, look at the item to determine if any paint or other evidence which may have transferred from the suspect vehicle is present.

If a victim vehicle is involved and was in use at the time of the incident, it may be necessary to determine if the victim may have contributed to the accident or that the victim's vehicle was in proper working order. Attempt to verify, if possible, that the headlights were on at the time of the impact, if the incident occurred at night and the victim's vehicle was in motion. Headlamp bulbs can be collected if necessary. Verify, if possible, that the brake lights or reverse lights are in proper working order if the impact was to the rear of the victim's vehicle.

Attempt to verify that the victim was not driving while impaired. This can be done through a breathalyzer or field sobriety tests if the victim is uninjured or through the collection of blood.

Attempt to determine the speed of the vehicle prior to the impact if the victim's vehicle is believed to have been in motion. This can be done with the measurement of skid marks or by an examination of the speedometer.

If an individual was struck by a suspect's vehicle, then search the victim's clothing for evidence that may have transferred from the suspect's vehicle which includes but is not limited to:

- Broken glass
- Chrome fragments
- Plastic components
- Decorative metals
- Paint chips
- Mud, dirt, and vegetable matter appearing to be uncommon to the area



If a suspect vehicle is present or later found, then look for impressions from fabrics, clothing, or body parts on the vehicle. Search for personal articles or papers which establish possible ownership of the vehicle. Search for fingerprints or blood inside and outside the vehicle. This may aid in establishing who was present in the vehicle at the time of the incident.

If tire tracks or impressions were collected at the scene, inked tire prints should be collected.

Dirt, mud, or vegetable matter from the vehicle that may have been left at the scene should also be collected.

Known exemplars need to be collected from the scene. Note the color of victim's vehicle or item of property (if appropriate), and collect some paint chips that match the color of the victim vehicle or item of property to be used as a known exemplar. Also note the make-up of the items struck such as metal, brick, wood, or glass for example. Collect fragments of these items if possible to be used as a known exemplar.

Collect samples such as mud, dirt, and vegetable matter common to the area to serve as comparison standards in analysis of samples found on the outside of the suspect vehicle.

Collect the victim's clothing for use as a known exemplar in the event the suspect's vehicle is not present.

If a suspect vehicle is found, collect some paint from the vehicle to use as a known exemplar for comparison with any paint that may have been left at the crime scene.



CONTROLLED SUBSTANCES

For the purposes of this manual, a scene involving controlled substances will involve any of the following:

- The illegal possession of any substance listed in Title 63 of Oklahoma State Statutes
- The possession of paraphernalia
- The illegal distribution of controlled substances.

For information regarding the investigation of a crime scene involving the manufacture of a controlled substance, see the section titled Clandestine Drug Laboratory on page 33.

For evidence collection procedures see GENERAL PHYSICAL EVIDENCE COLLECTION on page 17 of this manual.

The illegal possession of a controlled substance may be discovered during the investigation of an unrelated offense such as a traffic stop or a domestic dispute. In any case where an unknown substance is encountered, it is important that appropriate safety precautions are taken to insure the safety of the officers and others who may come into contact with the substance. While an unknown substance may appear to be a controlled substance, its composition is still unknown, so gloves should be worn to prevent skin contact as well as preserve the integrity of the evidence.

It is also important that when conducting searches that may result in the discovery of controlled substances, all searches are legally done and all necessary consents or search warrants are properly documented and executed.

When searching and collecting for evidence in a room, first look for the more typical hiding places such as in drawers, books, shoeboxes, and mattresses and/or behind picture frames. Then look for the less obvious hiding places such as in light fixtures, heating ducts, secret panels, tape cartridges, etc. Searches for controlled substances can involve the search of almost any space due to the ability to conceal illegal substances. Always look for things that are out of place or seem unusual.

While searching for controlled substances, one should attempt to avoid placing their hands into areas where visibility is limited. Hazards such as uncapped syringes and dangerous chemicals may be present.



When the scene involves simple possession, all unknown substances and paraphernalia should be collected. Paraphernalia can include but is not limited to:

- Pipes or other smoking devices
- Rolling papers
- Containers, especially ones designed to conceal illegal substances
- Roach clips
- Straws, tubes, or other snorting equipment
- Syringes

NOTE: Syringes and other paraphernalia may be a source of blood borne pathogens such as HBV and HIV. They should be handled with appropriate PPE, and syringes must be placed in a syringe safety tube.

NOTE: Certain limited conditions apply for the submittal of syringes to the OSBI laboratory. Please refer to Section III for more information.

Also look for any tablets or prescription medications in the scene. Prescription medications may appear to be legal when in proper prescription pill bottles, but check to see that the pills in the bottle are what are described on the label. Check the name on any labels to insure that any medication appearing legitimate is in the possession of the person to which it was prescribed. Some medications may have been stolen.

Also look to see if there are large quantities of medications present from multiple doctors. If there are multiple prescription pill bottles containing the same medications but from different doctors within the same time frame, an individual may be obtaining these medications through illegal means.

If the scene possibly involves the distribution of controlled substances, then scales, empty packages, any controlled substances packaged for distribution, and other materials that can be used to distribute illegal substances should be collected and photographed as well.

If an appropriate scale is available, controlled substances can be weighed at the scene to get an approximate weight for search warrant returns or evidence inventory, but these substances should be weighed in the packaging in which they are found. Do not empty the substances directly onto the scale or into a new container. This minimizes the chance of contamination and maintains the integrity of the evidence.



Take care while searching a scene to preserve any fingerprints which may be present.

Gloves should be worn during the search and any seizure to prevent contaminating the evidence with the fingerprints of the officers. Handle items carefully and primarily by their edges to prevent obliterating possible fingerprints. If the suspects are unknown, then process the entire scene for fingerprints keeping in mind which surfaces a suspect may have touched which would connect them to the crime or scene.

Also, during the search, be aware of the possible presence of evidence of other crimes such as burglary or other types of theft. Those individuals who abuse controlled substances may resort to theft to finance their purchases. During your search, watch for stolen property or signs of identity theft such as falsified drivers licenses or credit cards with names that don't match the suspect's name.

Computers, cell phones, PDAs, or other electronic media may contain information relating to crimes involving controlled substances especially when the operation involves the distribution of controlled substances. Seizing these items may provide good evidence and lead to other suspects involved in the operation; however, officers must ensure that they have the legal right to seize these items through their search warrant.



SEXUAL ASSAULT

For the purposes of this manual, a sexual assault will involve any type of illegal intercourse between two or more individuals, illegal touching or fondling of one or more individuals by others, or intercourse through the use of an instrument that violates state statutes.

Victims may be living or deceased, may range in age from infants to elderly individuals, may be disabled, and may or may not be able to communicate the events surrounding the assault.

A suspect may be a stranger or known to the victim (family members, friends, or spouse). The suspect may have a story which counters the victim's account.

A sexual assault may occur in combination with other crimes. For information in processing crime scenes that have occurred in conjunction with a sexual assault see the following sections:

- ARMED ASSAULT page 22
- ARSON page 27
- BURGLARY page 30
- HOMICIDE page 49

For evidence collection procedures see GENERAL PHYSICAL EVIDENCE COLLECTION on page 17 of this manual.

Evidence in sexual assault cases primarily involves:

- DNA from the suspect that could include:
 - o Semen on the victim's person or on their clothing
 - o Saliva on areas of the body that would be deemed inappropriate
 - o Hairs found on the victim's person where they would not be expected to be present from legitimate contact



- o Blood or skin under the victim’s fingernails that may be present due to injuring the assailant by scratching
- o Semen or hairs on bedding, furniture, linens, etc. This would have to be evaluated based on the case circumstances
- DNA from the victim that could include:
 - o DNA present on areas of the suspect’s body or clothing that would not be present from legitimate contact
 - o Hairs or other DNA on bedding, car seats, furniture, linens, etc. This would have to be evaluated based on the case circumstances

NOTE: Due to the nature of hair transfer, the OSBI will not perform analysis on hairs in cases where individuals have had close contact or access to common areas (living quarters, vehicle, etc.). If other probative evidence exists in a case, such as semen identified on swabs in a sexual assault evidence collection kit, no hair examination will be performed unless case circumstances dictate otherwise.

In any type of suspected sexual assault it is important to preserve evidence from the victim as quickly as possible especially in the event that the victim is still living. There is potential that the actions of the victim such as bathing, wiping, changing clothes, etc. can cause evidence to be lost.

It is best to get a sexual assault exam done by a SANE nurse in every case of a suspected sexual assault even if the alleged assault occurred several days prior. As soon as possible, have the victim go to a hospital, preferably one that has a SANE nurse on duty. The SANE nurse will collect evidence and package it into a sexual assault evidence collection kit. This can then be submitted to the OSBI for analysis.

If the victim is living, statements about the aspects of the assault will be very important in establishing where and what evidence to collect. This information should be obtained as soon as possible. In many instances, this information may be obtained by the SANE nurse during the sexual assault examination.

Additional evidence that may need to be collected includes but is not limited to:

- Victim’s clothing worn at time of assault
- Victim’s clothing worn after the assault
- Bedding such as sheets, comforters, pillowcases, etc.
- Linens such as towels and washcloths



In cases involving children, invalid adults, or ongoing sexual abuse, it may be necessary to collect multiple pairs of underwear or diapers that have been worn. Collect the evidence in a manner that would preserve trace evidence such as hairs and fibers as well as any biological material that may be present.

Other types of evidence such as bedding or towels and washcloths are also potential items which may need to be analyzed. These should also be collected in a manner that preserves trace evidence such as hairs and fibers as well as biological material that may be present.

If it is believed that body fluids related to the assault may be present on larger items of evidence such as furniture, in vehicles, or on flooring, then it may be useful to use an alternate light source, if available, to look for this type of evidence. This would need to be done by someone with training or experience in looking for this type of evidence. This would allow for a smaller cutting to be taken of the item rather than collecting the whole item.

However, if an alternate light source is not available, it may be possible to remove a large area of upholstery from a vehicle, item of furniture, or carpeting. This would increase the chances that any biological fluids present would be contained in that cutting. General swabbing of the area can also be done if taking a cutting is not feasible such as on a solid surface such as a hardwood floor or on a bench. If neither cutting nor swabbing is feasible, it is then best to collect the entire item, but this should be a last resort in cases involving large, hard to collect items.

If it is believed that a foreign object(s) was used in the assault, that item(s) should be collected. If the item is unknown or could involve multiple items, swabs can be taken of items that may have been used.

If a suspect is known, collect any clothing that he or she may have been wearing at the time of the assault. There could be evidence that was transferred between the suspect and victim.

If the suspect used some type of restraint to immobilize the victim, then that should be collected as well.

If a suspect in a sexual assault is unknown, check the scene for any type of evidence which may link the suspect to the scene. This can include fingerprints, semen, hairs, cigarette butts, or touch DNA evidence.



In some cases, the alleged assault may have been facilitated through the use of a drug or other intoxicant supplied to the victim by a suspect. For testing of suspected drugs or intoxicants, it may be necessary to collect blood and urine from the victim for toxicological testing. This also should be done as soon as possible since the victim's body will continue to metabolize the substance, and it may soon become undetectable.

NOTE: If drugs were suspected of being used in the assault, collect blood using Sodium Fluoride/Potassium Oxalate (grey stopper) collection tube. This tube is not provided in the sexual assault evidence collection kit provided by the OSBI. Ensure that blood or urine is stored refrigerated and protected from light as soon as possible after collection to prevent the degradation of any drugs or drug metabolites in the sample.

If a suspect has been identified and the scene of the assault is somewhere other than the suspect's home, it may be necessary to search that person's home as well for any illicit substances if they were believed to have been used to commit the assault.

If a drug facilitated sexual assault is suspected and a crime scene can be located, check the crime scene for:

- Illegal substances
- Intoxicating substances such as alcohol, pills, etc. which may have been used to impair or incapacitate the victim
- Used cups or glasses, unfinished drinks, or food which may contain substances supplied to the victim without their knowledge

Legally obtained known DNA samples are necessary for testing at the OSBI Laboratories. Known standards should be in the form of buccal swabs (a swab of the inside of the cheek). Victim known standards should be collected as part of the sexual assault examination, but be sure to confirm that this was done before submission of evidence to the laboratory.

If a suspect has been identified, and it is possible, a known sample from the suspect should be collected and submitted.

If the victim has had any consensual sexual contact in the 96 hours prior to the alleged sexual assault incident, known DNA samples should be collected from the consensual partner(s) for submission to the laboratory. This ensures that any potential DNA from the evidence is not from a consensual partner.



HOMICIDE

For the purposes of this manual, a homicide will involve the death of one or more individuals that was caused by one or more other individuals.

Victims will be deceased and will not be able to communicate the events surrounding the event.

A homicide may occur in combination with other crimes. For information in processing crime scenes that have occurred in conjunction with or are have contributed to a homicide see the following sections:

- ARMED ASSAULT page 22
- ARSON page 27
- BURGLARY page 30
- HIT AND RUN page 39
- SEXUAL ASSAULT page 45

For evidence collection procedures see GENERAL PHYSICAL EVIDENCE COLLECTION on page 17 of this manual.

Photograph the crime scene exactly as it is prior to moving or collecting anything.

In homicides, the body or bodies of all deceased individuals may hold evidence which is vital to the investigation of the crime. The Office of the Chief Medical Examiner (OCME) must be contacted to handle the bodies of any deceased individuals. Photographs should be taken, but the bodies should not be disturbed prior to the arrival of personnel from the OCME.

By working with the investigative personnel from the OCME, it may be determined what if any wounds the victim may have possibly sustained. This information can be helpful in proceeding with the investigation of the scene. Additionally some evidence may be present on the victim that can be collected prior to the victim being transported from the scene. Any evidence collected at the crime scene should not accompany the body to the OCME.



Before transporting the body, bag the homicide victim's hands. Then, wrap the victim in a clean, new, unused sheet for transportation to the Medical Examiner. Mark on the sheet the side that touched the body. Also mark the end of the sheet used to cover the head. This will allow the forensic analysts to collect pertinent evidence directly from the surfaces of the sheet that was in contact with the body. This will typically be handled by the OCME personnel.

Many times in these types of criminal assaults, the victim attempts to defend him/herself, and a struggle ensues. During the struggle, the victim may pull the assailant's hair, scratch his/her face, or tear his/her clothes. Consider what kind of evidence might be on the person of the victim, on their clothing, and at the crime scene as a result of a struggle. Search the area for articles of evidence dropped from the assailant's pockets or torn from his/her clothes. Also look for any items that a potential suspect may have left behind in the scene.

If the victim is found deceased, consider what type of weapon might have been used. Note any injuries observed and bloodstains observed on clothing. Search the area for an item such as a knife, rope, wire, or blunt object the assailant might have used and discarded as he/she fled the scene. If a weapon was involved in the commission of the crime, see the section titled ARMED ASSAULT, page 22.

Bloodstain pattern evidence may also be present. Take photographs of any bloodstain patterns with a scale at a 90 degree angle both in close proximity to the pattern and at a distance to show the position of the pattern of interest. Also, document with accurate sketches and measurements to show positioning of items.

Consider how the assailant and the victim reached the crime scene. If the victim was forced to walk or was dragged into a wooded area, there may be footprints on the ground. Photograph and collect these. If the assailant used a vehicle to bring the victim to the area, search for any possible parking spots where tire impressions and footprints may also be found and collected.

Also consider how an assailant left a scene, and search those areas for evidence such as footprints, tire impressions, weapons, etc.

If there is any soil or vegetative material that appears to have been disturbed which is unique to the area, collect a sample to be used as a known.

Collect known reference samples of any fibers from fabrics or carpet that is present.

If a suspect is developed or is present, collect any clothing that is believed to have been worn by them at the time of the crime. Collect fibers from any carpet, vehicles, etc. that may have been transferred to the victim.



SECTION II: **COLLECTION AND PRESERVATION OF EVIDENCE**

NOTE: Prior to touching, altering or collecting any physical evidence, a record should be made of its position and condition. This record consists of photographs, measurements and sketches, and descriptive notes.

BODY FLUIDS

Body fluid stains are valuable evidence. They can be used to associate a suspect with the crime or eliminate that person from consideration. The following describes procedures for collecting and preserving blood, saliva, semen, skin cells, sweat and urine, as well as obtaining comparison standards, where applicable and possible.

Prior to collecting bloodstain evidence, it is most important to make an exact record of the existing patterns of bloodstains and spatters. This should include close-up and overall scaled photographs of individual blood drops at a 90 degree angle that disclose shape, size, and direction of movement. All physical evidence should be handled with gloved hands taking care not to contaminate these articles.

Note: Make sure that the package of each collected item is labeled to indicate from where or whom it was collected.

BLOOD

When the entire article, blood-stained, can be collected and sent to the laboratory:

- Air-dry the stained article on a piece of clean paper placed in a draft-free area

Place the dried article in a clean paper bag. Properly seal and label with your initials, description of article and date. Any debris that originally fell from the article onto the paper during the drying process should also be placed in a separate paper bundle in an envelope, labeled and sealed with tape.



- If you must fold the articles, protect the stained area with a piece of paper.
- Wrap each bloodstained item separately. **DO NOT PACKAGE ITEMS WHILE THEY ARE STILL MOIST. ALLOW THEM TO DRY THOROUGHLY. DO NOT USE PLASTIC OR AIRTIGHT PACKAGING MATERIALS. PACKAGE EACH ITEM SEPARATELY, ESPECIALLY IF ITEMS ARE COLLECTED FROM DIFFERENT LOCATIONS OR PERSONS, TO PREVENT CROSS-CONTAMINATION OF EVIDENCE.**

When large quantities of wet blood are available:

- Soak up the moist blood with a sterile, cotton-tipped swab
- Air-dry the cotton-tipped swab. Do not use heat or forced-air to hasten the drying time
- Place dried cotton-tipped swab in a paper envelope, seal it with tape, and label envelope with your initials, the date and a brief description. Use a biohazard label

When small quantities of blood are available:

- Use a cotton thread/string or a sterile, cotton-tipped swab
- Moisten the cotton string or swab with a minimal amount of physiological saline or tap water when saline is not available
- Apply the moist cotton string or swab to the blood crust and work the cotton string or cotton-tipped swab into the blood crust
- Once the moist cotton string or cotton-tipped swab has been worked into the blood crust, allow the cotton string or cotton-tipped swab to remain and soak-up the diluted blood and dry
- Place the dried cotton string or cotton tipped swab into a paper bindle, then place the labeled bindle or cotton tipped swab into a paper envelope, seal it with tape, and label with your initials, the date and a brief description. Use a biohazard label
- Collect a control/comparison sample, where appropriate

Standards for withdrawal, handling, and preservation of blood samples for alcohol/drug analysis:

Blood samples obtained from persons involved in traffic accidents or traffic violations shall be collected, handled and preserved as required by Title 47 of the Oklahoma State Statute.



Blood samples are collected by venipuncture from living individuals in accordance with Title 47 ss 756C within two (2) hours after the alleged offense and only by persons authorized by Title 47 ss 752 of the Oklahoma State Statute (licensed medical doctor, licensed osteopathic physician, licensed chiropractic physician, registered nurse, licensed practical nurse, physician's assistant, certified by the State Board of Medical Licensure and Supervision, an employee of a hospital or other health care facility authorized by the hospital or health care facility to withdraw blood acting at the request of a law enforcement officer). Follow the instruction form for the law enforcement officer found in the State of Oklahoma Blood Alcohol/Drug Specimen Collection Kit and use only the items provided.

Note: Store blood or urine refrigerated and protected from light as soon as possible after collection to prevent the degradation of any drugs or drug metabolites in the sample.

SALIVA and/or SEMEN

Air-dry the stained item on a piece of clean paper placed in a draft-free area.

Place the dried item in an envelope, paper-sack or breathable container. Seal and label the container with your initials, the date, and a brief description. Use a biohazard label. If you must fold the dried item, protect the stained area with a piece of paper.

Wrap each stained area separately. **DO NOT PACKAGE ITEMS WHEN THEY ARE STILL MOIST. ALLOW THEM TO DRY THOROUGHLY. DO NOT USE PLASTIC OR AIRTIGHT PACKAGING MATERIALS.**

SKIN CELLS

In certain circumstances, some individuals may leave behind skin cells on items they have touched. Some examples would be a weapon, the brim inside of a hat, some jewelry, clothing, or other items where the individual has had some contact. Special consideration should be noted that typical skin cells left behind in everyday use are dead cells. These cells would contain very little, if any, DNA. However, if the item is one in which the individual may have had living skin cells removed, there is a greater chance of obtaining a DNA profile.



It should also be noted that the amount of DNA present even on this type of sample is minimal in most cases, and it may only produce a partial DNA profile. Because of this, this type of analysis is not routinely completed at the OSBI, and it will only be completed in rare cases where other evidence is not present.

DNA COMPARISON STANDARD

Known DNA reference samples are necessary in any case where DNA analysis will be performed. Known samples need to be obtained from all suspects and victims as well as any other individual who may have contributed to DNA that has been found during the investigation of a crime. One example would be a consensual sex partner who had recent sexual contact with the victim of a sexual assault.

DNA comparison standards are obtained by taking at least two sterile swabs and one at a time, swabbing the cheeks and gums of the inside of the subject's mouth. Follow the guidelines for the preservation and packaging of saliva samples after collection of the known DNA reference sample (i.e. buccal swab). Be sure to label the evidence package with the name of the individual from whom the sample has been collected. If the person is deceased, then the known sample will be taken by the Medical Examiner.

DO NOT USE PLASTIC OR AIRTIGHT PACKAGING MATERIALS

IGNITABLE LIQUIDS/RESIDUES

Evidence in fire investigation cases is difficult to find because of its small size, the presence of a large amount of debris, and because potentially useful evidence is often consumed in the fire or washed away when a fire is extinguished. For this reason, great care must be used in the collection and preservation of such evidence. The following describes procedures for collecting and preserving arson debris such as glass, wood, fabrics, foreign objects, and ignitable liquids as well as comparison standards where applicable and possible.



SUSPECTED IGNITABLE LIQUIDS

Place one ounce (or whatever lesser quantity is available) of suspected ignitable liquid in a small clean, unused (preferably lined) can with a tight-fitting lid; or alternatively, swab up the liquid with a common paper towel and place it into a small, clean unused can. Also submit a clean, unused paper towel in a separate sealed can as a control sample. Clean, unused glass vials with Teflon[®] seals may also be used for collection of ignitable liquids. Be sure to label any packaging that contains glass evidence containers as “fragile, glass enclosed”.

Seal the container and label with your initials, description, and the date.

ARSON DEBRIS

GLASS

If it appears a Molotov cocktail type device was used, collect the glass fragments and dust them for fingerprints.

Place the glass fragments in a clean, unused, sealable (preferably lined) metal can and label the can with your initials, the date, and an item number.

WOOD AND FABRICS

Collect and package wood, carpeting, cloth or other absorbent materials found near the origin of the fire, which appear to contain traces of the ignitable liquid or incendiary material. Use the same procedures described above for glass.

Collect comparison control standards of similar materials that do not appear to contain ignitable liquid traces. Although control samples are not always necessary, they are most helpful on substrates that are chemically similar to ignitable liquids, e.g., roof tar, some adhesives or waxes found on flooring products.



FOREIGN OBJECTS (FOR ARSON)

Place burnt matches, wire, or other objects (not containing ignitable liquids) that are apparently foreign to the scene, in separate metal cans.

Seal the container and label with your initials, description, the date, and the item number. Note: Items should be handled with gloved hands. Do not include gloves with evidence.

FABRICS

Any and all fabric found near or at the crime scene, or missing from the crime scene, may be either supportive or necessary evidence in establishing a relationship between the crime and the suspect. Collect and preserve such items carefully to avoid contamination, cross-contamination or deleterious change. (Separate packaging further prevents cross-contamination.) No object is too large or too small to be of value; do not pass over an item because you doubt its relationship or attachment to the case under investigation. The following describes procedures for collecting fabrics, large or small, as well as comparison standards where applicable and possible.

LARGE ARTICLES

Before collecting and packaging large articles such as mattresses or upholstered chairs, record and protect the exact position of the evidence. For example: Indicate in your notes or diagram which end of the bloodstained mattress was next to the headboard.

Care should be taken during the collection and preservation process not to loosen trace materials. Wet surfaces should be allowed to dry before packing. Handle articles as little as possible.

Large pieces of fabric should be carefully folded, protecting any torn edges, and placed in a clean bag, sealed with tape and marked.

If clothing must be cut for removal, be careful not to cut through points of significance such as bullet holes or knife wound areas or previously cut or torn areas.



Package large articles such as mattresses and upholstered chairs intact in large crates or boxes sealing all seams with tape. (Prior to a large item being submitted for analysis, please contact the nearest OSBI laboratory for further instructions.)

Affix an evidence tag to all articles and mark with your initials, description, the date, and an item number, if appropriate. **DO NOT TEAR, STRETCH OR HANDLE FABRICS ROUGHLY.**

Collect a comparison standard if possible.

SMALL ARTICLES

Look carefully for small articles of fabric throughout the general crime scene, at entrances and exits, on any victim or snagged on sharp objects. **DO NOT OVERLOOK FIBERS THAT MAY BE ON THE VICTIM'S FEET OR HANDS.**

Search for imprints of fabric weave in painted surfaces, putty or on other objects. Handle these carefully. Do not contaminate with fingerprints or other impressions. Fabric impressions on objects such as paint, metal surfaces and putty require careful handling. Package each fabric impression separately in a glass or plastic vial, a small box or other appropriate container. Seal each container with tape and label with your initials, description, the date and an item number. Contact the laboratory for the current and best procedures to package such items.

Collect small articles carefully with tweezers, ensuring torn edges are protected. Apply minimal amounts of pressure, since tweezers may crush fibers and pulling may stretch fibers.

Allow small articles containing wet surfaces to dry before packing. These surfaces should be protected with non-abrasive material during shipment.

Place in small containers, but not so small as to require folding. Folding will cause distortion of threads.



COMPARISON STANDARD – SMALL ARTICLES

Comparison standards are fabric items that can be identified and collected at the crime scene that might later be compared with fabric or fibers found on the suspect. For example: A piece of torn clothing found on a victim, a torn bed sheet, or curtain might later provide an important link to a fiber found on the suspect's clothing. Package these items to prevent contamination, cross-contamination or deleterious changes. Consider collecting standards from several places, including pristine areas as well as environmentally altered areas such as sun-bleached carpet, heavily traveled areas, etc.

FINGERPRINTS

Generally, latent fingerprints on non-porous materials deteriorate rapidly upon prolonged exposure to conditions of high temperature and humidity. Consequently, they should be collected and forwarded to a lab as soon as possible. Once the object bearing latent prints is secured by wrapping or bagging, ensure it is well protected from frictional contact in order to prevent the prints from being smeared or obliterated. The following describes procedures for collecting and preserving fingerprints on absorbent and non-porous surfaces as well as collecting comparison standards when applicable and possible.

NOTE: If evidence will be submitted to the OSBI for latent print examination, **DO NOT** process the items for prints prior to submittal.

ON ABSORBENT MATERIALS

Place the paper or other absorbent material in a paper sack, envelope, or paper wrapping.

DO NOT HANDLE THE MATERIAL WITH YOUR FINGERS. ALWAYS USE GLOVES. DO NOT ATTEMPT TO DEVELOP LATENT FINGERPRINTS ON ABSORBENT SURFACES YOURSELF.

Label the bag or packaging with your initials, description, the date, and an item number.



ON HARD SURFACES

Dust plastic surfaces, metal plates, glass bottles, or other hard surfaced objects for latent fingerprints using a fingerprint brush and black powder.

Remove developed prints with lifting tape and place the tape on a 3" x 5" card. Plain white copy paper is sufficient if white cards are not available.

Mark the card with your initials, description, the date and an item number. If necessary, draw a diagram showing where the print was lifted. Also, it may be important to indicate the direction of the prints. Place it in an envelope and seal.

ON SOFT SURFACES

Photograph with scale at a 90 degree angle, and then carefully remove putty, caulking compound or other soft material bearing visible fingerprint impressions. Leave as much excess material surrounding the fingerprint as possible.

Glue the mass of material to a stiff section of cardboard that is marked with your initials, description, the date, and an item number.

Tape a protective cover over the specimen. A paper cup or baby food jar is useful for this purpose. **DO NOT TOUCH OR OTHERWISE DISTORT THE FINGERPRINT.**

Since adhesive tapes may bear fingerprint impressions on both sides of the tape and may require expert care in removing and processing, the investigator should submit the tape to the laboratory for processing in the condition found when recovered.

ON SKIN

When a victim has been grasped firmly on the neck, arms, thighs or other clean, dry, hairless parts of the body, the possibility exists that fingerprints may be recovered from the affected skin areas. Methods that can be used include dusting as well as the application of various chemical, electronic and photographic techniques. Do not wash or disturb the affected areas prior to processing.



SUCCESS IS CRITICALLY DEPENDENT UPON EXPERT PROCESSING AS SOON AS POSSIBLE AFTER INITIAL CONTACT BETWEEN THE ASSAILANT AND VICTIM (USUALLY 4-8 HOURS MAXIMUM ELAPSED TIME.)

COMPARISON STANDARD - FINGERPRINTS

Collect known fingerprints of suspects and other persons, including victims, who may have touched an object under investigation. Collection of palm prints and/or major case prints may be necessary. Major case prints are the inked reproduction of all of the friction-ridged skin on the palm sides of the hands. Place fingerprint records in a stiff envelope to protect them from being bent. Seal the envelope and label it with your initials, description, the date, and an item number.

NOTE: DO NOT ATTEMPT TO DEVELOP OR ENHANCE PRINTS IN BLOOD. CONTACT THE OSBI LATENT EVIDENCE UNIT.

GUNSHOT RESIDUE, FIREARMS AND AMMUNITION

Firearms leave unique markings on bullets and cartridge cases as well as detectable residues on the shooter's hands. The following describes procedures for collecting and preserving gunshot residue, handguns, serial-numbered items, shoulder weapons, spent bullets and spent cartridge casings.

GUNSHOT RESIDUE

NOTE: In control test firings, it has been shown that the concentration of gunshot residue (GSR) significantly declines on living subjects due to normal activities. In view of these findings, if a significant amount of time (approximately four hours) has passed since the shooting, it is recommended that you check with the OSBI before submitting samples for analysis. This does not apply to deceased subjects. For all other items not listed on the instruction sheet of the GSR kit, you must contact the laboratory prior to submitting the GSR kit. (See instructions provided with the GSR kit.)



If the subject is deceased, collect GSR samples prior to processing the body. If the body has been processed, check with the OSBI before proceeding.

Avoid heavily soiled or excessively bloodied areas of the hands or face when sampling.

When the cap is removed from the clear plastic vials containing the sample platforms (or 'stubs'), the adhesive collecting surface is exposed and care must be used to not drop the stub or contaminate the collection surface. The surface may not come in contact with any object other than the area that is to be directly sampled. The vial should not remain open any longer than it takes to sample the hands, face or other surface.

Do not touch or contaminate the inside of the plastic vial.

When pressing (in an up-and-down motion) the collecting surface of the stubs on the subject's skin, use enough pressure to cause a mild indentation on the surface of the subject's skin. Continue sampling the area of interest until the adhesive loses its potency.

Do not collect GSR samples if the subject has already been fingerprinted. The inking process removes the gunshot residue particles from the skin.

Do not use this kit to submit expended casings to the laboratory.

Allow kit to reach room temperature before using.

If you have any questions concerning the use of this kit, do not hesitate to call the OSBI Criminalistics Division.

Fill out all information requested on the enclosed Gunshot Residue Analysis Information Form.

Put on the disposable plastic gloves provided in this kit. Do not substitute with other gloves. Do not submit unused vials (with the exception of control vials). These vials are to be disposed of and not used for any other case.



RIGHT HAND:

Carefully remove the cap from the vial labeled RIGHT HAND.

While holding the vial cap, press the collecting surface of the stub onto the back of the subject's right hand until the area has been covered.

Next, press the collecting surface of the stub onto the palm of the subject's right hand until the area has been covered.

After sampling the subject's right hand (both back and palm), return cap to the RIGHT HAND vial. Fill out all information requested on the vial label.

LEFT HAND:

For collection from the left hand, repeat the procedures for RIGHT HAND using the vials labeled LEFT HAND.

FACE:

NOTE: Do not collect from cheeks or chin if subject has facial hair.

Remove the cap from the vial labeled FACE, then press the collecting surface of the stub onto the subject's face until the areas have been covered. Collect from the areas as outlined in the instructions in the kit.

After sampling the subject's face, return the cap to the FACE vial. Fill out all information requested on vial label.

CONTROL:

DO NOT OPEN THIS VIAL. Fill out all information requested on the vial label. (Note: Not all kits provided by the OSBI have a control stub).



FINAL INSTRUCTIONS:

Fill out all information requested on the front of the kit envelope.

Return completed GSR Analysis Information Form to the kit envelope.
Return all used vials and control vial to the kit envelope.

Close the envelope flap and seal with evidence tape. Place the initials
(and preferably the date) on (not under) the seal.

Properly dispose of the gloves and instruction sheet. These items need
not be submitted with the kit.

The sealed GSR kit along with a completed OSBI Request for Laboratory
Examination form (RFLE) may be hand delivered or sent by Registered
Mail to:

OSBI Forensic Science Center
800 E. 2nd Street
Edmond, OK 73034-5309
Attn: Trace Evidence Unit

NOTE: If sent by Registered Mail, package sealed kit in an appropriate
container to prevent damage in transit. (Do not forget to send the OSBI
Request for Laboratory Examination Form (RFLE) along with kit.) Do Not
Enclose the OSBI RFLE Inside The GSR Kit.

HANDGUNS

Note: Weapons **MUST** be unloaded and documented on Request For
Laboratory Examination Form (RFLE) prior to submittal to laboratory.

All articles must be handled with gloved hands, especially if item is also being
submitted for latent prints and/or biology analysis.

Unload revolvers only after making notes and diagrams to describe the position
of spent casings and live rounds in the cylinders with respect to the barrel.

Attach an identification tag to the weapon. The tag should describe the handgun,
list the serial number, and show your initials, the date and item number.



Remove magazine from weapon. Note absence or presence of round in chamber. Place into an envelope of appropriate size. Label envelope and then package magazine, or loose ammunition with the subject weapon.

Place the weapon in a paper bag or box. Label it with your initials, description, the date, and an item number. The Lab will NOT accept loaded weapons. Document on the container and on the OSBI Request for Laboratory Examination Form (RFLE) that firearms have been unloaded. **DO NOT SEND A LOADED FIREARM THROUGH THE MAIL.**

Note: If firearm is to be submitted for latent print analysis in addition to any other analysis, make sure firearm is packaged in a manner as to minimize friction between the item and the package. For example, if item is submitted in a gun box, preserve potential prints by carefully securing item so that it cannot slide around.

SERIAL NUMBERS

All items (weapon) submitted to the laboratory for serial number restoration must be handled with gloved hands, especially if item is also being submitted for latent prints and/or biology analysis.

Affix an evidence tag with your initials, date, item number and a description of the item to the actual item to be submitted for serial number restoration.

Place the item or weapon in a paper bag or box. **DO NOT ATTEMPT TO RECOVER THE SERIAL NUMBER YOURSELF WITH ACID-ETCH SOLUTIONS.** If the item is a weapon, ensure that the weapon is unloaded and document on Request For Laboratory Examination form prior to submission to the laboratory.

SHOULDER WEAPONS

All articles must be handled with gloved hands, especially if item is also being submitted for latent prints and/or biology analysis.

Unload weapon and note presence or absence of round in chamber.



Affix an identification tag to the weapon that describes the weapon and includes the serial number.

Remove magazine from weapon, and package it separately for submittal to the laboratory.

Place unloaded weapon and magazine in a wooden or sturdy cardboard box. Seal box, label it with your initials, description, date, and item number. Note on the container and on the RFLE that the weapon is unloaded.

NOTE: LONG GUNS CAN BE SUBMITTED WITHOUT PACKAGING IF NO BLOOD ANALYSIS OR PRINTS ARE NEEDED.

SPENT CARTRIDGE CASES

Consider having the article fingerprinted.

Preferably, the collecting officer should include his/her initials, date, case number and location from which the item was collected on the evidence package that contains the spent cartridge casing. Alternately, one may scratch one's initials and the date on the inside lip of the casing with a stylus or a needle. **DO NOT MARK THE BASE OR THE SIDES OF THE CASING.**

Tape seal the package and label on (not under) the seal with your initials and preferably the date.

Each cartridge case should be separately packaged.

SPENT SHOTGUN SHELLS AND WADS

Consider having the spent shell fingerprinted.

Preferably, the collecting officer should include his/her initials, date, case number and location from which the item was collected on the evidence package that contains the empty shell. Alternately, one may place one's initials and the date on the inside lip of the empty shell with a ballpoint or fine tip pen. **DO NOT MARK THE BASE AREA.**



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Tape seal with initials and preferably date. Label the package with a description, source, date collected and an item number.

Collect spent wads, noting their exact locations.

Place in paper bag or paper envelope.

Tape seal with initials and preferably date, and place appropriate information on container.

NOTE: GUNS RECOVERED IN WATER: Upon recovery of firearms from water, the firearm should immediately be placed in a non-breakable container (such as a PVC pipe with end caps or plastic bucket with lid) filled with water and transported DIRECTLY to the OSBI Firearms Unit located at the OSBI Forensic Science Center in Edmond, OK, immediately.

FOOD AND DRUG SPECIMENS

Since food and drug specimens exhibit a wide variety of identifiable characteristics, they may corroborate other evidence or link a suspect with a crime scene. When handling this type of evidence, it is important to prevent any contamination of the specimens. The following describes procedures for the collection and preservation of liquid, powder, solid, or plant material specimens as well as comparison standards where applicable and possible.

NOTE: Food specimens that are suspected of product tampering should be submitted to the local county health department, Oklahoma State Department of Environmental Quality or the Federal Food and Drug Administration for analysis. The OSBI Criminalistic Services Division does not offer product-tampering services.

LIQUIDS

Try to collect approximately thirty (30) milliliters of the specimen. Use a leak-proof container with a screw cap.



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Label sample bottle(s) with a brief description, and place in a plastic bucket with vermiculite. The OSBI provides sample jars and buckets free of charge to officers.

Tape seal the bucket lid and label with initials/date.

If any container used is glass or has a glass stopper, mark it "FRAGILE."

PLANT MATERIAL

Thoroughly dry sample by spreading it on clean paper material for at least 24 hours.

After sample has been dried, place in a clean plastic bag, zipper-seal plastic bag, paper sack or paper bundle. **DO NOT MIX SAMPLES. PACKAGE EACH SEPARATELY TO AVOID MIXING. DO NOT SEAL FRESH PLANTS IN PLASTIC BAGS OR BUCKETS. USE PAPER SACKS OR BOXES.**

Tape seal the outside of the container with your initials and date. Include a brief description on the container.

POWDERS OR SOLIDS

Place in a clean, unused container such as a plastic bag, plastic vial, paper bundle, etc. **DO NOT OVER SEAL.**

Suspected iodine or other staining substances should be packaged in heat-sealed plastic containers to avoid contaminating other evidence. If heat-sealing equipment is not readily available to you, place the suspected iodine or other staining substance in a sealed bucket or plastic sample vial. Upon submission to the laboratory, notify OSBI lab personnel that suspected iodine is present. Heat-sealing can be done upon arrival at the lab if needed.

Tape seal the container with your initials and date. Include a brief description.

Refrigerate samples as needed.

TABLETS AND CAPSULES

Place in a clean, unused container such as a plastic bag, plastic vial, paper bundle, etc.



Make an accurate count of contents and a description of the inscriptions.

Tape seal container with your initials and date. Include a brief description.

NOTE: For liquids, plants and/or solids, if only a residual amount of the substance is present, then the container with the residue should be submitted for analysis. Do not attempt to collect and submit only the residue.

COMPARISON STANDARDS

Collect comparison standards for food, liquids, plant material, tablets and capsules (in cases such as unattended death and suspected poisoning) in the same manner as described in the above listed sections. When collecting standards, search the refrigerator, cupboards, and storage places for like material, particularly that which is labeled.

DO NOT REMOVE THESE SAMPLES FROM THEIR ORIGINAL CONTAINERS. Seal them in clean, separate containers and label them. **NEVER MIX SPECIMENS** regardless of their proximity on the scene and their similarity in appearance.

GLASS

All glass, except small fragments, might contain latent fingerprints and should be handled accordingly. In cases where glass fragments might be present on clothing, shoes, tools, or other objects, the articles should be submitted to the laboratory as soon as possible. The following describes procedures for collecting and preserving large and small fragments of glass as well as comparison standards for glass where applicable and possible.

LARGE FRAGMENTS

Dust fragments for latent fingerprints and submit prints. Shoe impressions may also be observed or developed.



Protect thin protruding edges of fragments against damage by embedding them in modeling clay, putty, or any similar substance or by wrapping in layers of cardboard and taping. Packaging must protect others who handle this evidence. **AVOID CHIPPING THE FRAGMENTS.**

Use tweezers or other similar type of tools to collect glass. Exercise care in protecting the edges and avoid scratching the surface.

Place adhesive tape on each piece for identification. Place initials and date on tape. **CAUTION:** This procedure may destroy fingerprints.

Wrap each piece separately in cotton and place in a sturdy box with a tight fitting lid. Tape seal each package with your initials and date. Include a brief description.

Package questioned pieces of glass separately from known pieces.

If you are submitting glass for the purpose of determining the direction of a bullet's impact or for any other fracture analysis or reconstruction, mark surfaces with tape indicating whether the glass was found outside or inside the building. Likewise, mark glass taken from a window frame indicating which side was facing outside.

Mark the container "FRAGILE-GLASS" or place an equally appropriate warning sticker on the container.

SMALL FRAGMENTS

Examine articles of clothing and shoes for the presence of glass fragments or submit entire object for analysis.

Use tweezers or other similar tools to collect glass. Use care in protecting the edges and avoid scratching the surface.

Wrap each article of clothing containing fragments separately in clean paper bag.

Package any questioned pieces of glass separately from known pieces.

Tape seal each bag include your initials, the date, and a brief description.



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Place shoes and other solid objects in separate containers such as boxes. Tape each object to the bottom of containers to prevent rattling.

DO NOT PACK ARTICLES CONTAINING MICROSCOPIC FRAGMENTS IN COTTON OR OTHER SOFT PROTECTIVE MATERIALS.

Seal each package completely, making sure there are no holes through which glass fragments might be lost.

Place loose glass fragments in pill boxes, plastic or glass vials and seal them tightly. Place cotton (or other packing material) in the container to prevent rattling and chipping during transit. **DO NOT USE ENVELOPES AS CONTAINERS.**

Label everything with your initials, the date, and a brief description.

Mark the container “FRAGILE-GLASS” or place an equally appropriate warning sticker on the container.

COMPARISON STANDARD - GLASS

Obtain comparison samples from an area as near as possible to the point of impact. Collect samples that are at least the size of a quarter. Label each comparison fragment and place in a folded paper bundle marked with your initials, description, the date, and an item number. Wrap comparison sample according to appropriate procedures described previously. When direction of force is a question to be answered by the laboratory, always take a glass standard from any remaining glass in a window or doorframe as close as possible to the point of breakage. Label pieces with respect to which surface was **INSIDE** and which was facing **OUTSIDE**. Standards should also be taken from the ground only when there is no glass remaining in the area.

NOTE: Be aware of serology, fingerprint and trace evidence possibilities while handling evidence.



HAIRS AND FIBERS

In crimes involving physical contact, particles are often transferred between the victim, suspect, and weapon or other objects. Hairs and fibers are among the most common of these evidentiary items and can be extremely valuable to an investigation, particularly if there has been no contact between the victim and suspect. The following describes procedures for collecting and preserving hairs and fibers from surfaces (metal or fabric) and from individuals as well as comparison standards where applicable and possible.

ON INDIVIDUALS

When it is necessary to obtain hair samples from an individual, pull, do not cut, a minimum of forty (40) scalp hairs or twenty-five (25) pubic hairs with a gloved hand. If possible, this should be done AFTER a combing has been taken to collect possible foreign hairs. When collecting hairs, make sure hairs are collected from different sections of the same area (e.g. forehead, back of head, and sides of head) to ensure a good representative sample is collected.

When obtaining samples of pulled or combed hair, package the hairs in separate containers. An example would be all scalp hairs from one individual would be placed in one paper bindle, which is then placed into an envelope and sealed. The same individual's pubic hairs would be secured in a separate paper bindle, which is then placed into an envelope and sealed. Locations routinely sampled include head, pubic and face. Other body hairs are not generally collected.

When collecting hairs from a wound (cut or burn), collect samples as close to the wound as possible. Damage to the hair may reveal certain class characteristics needed in comparison of hairs collected from the scene to hairs collected from the victim or suspect. Place the hairs in a sealed container that is marked with your initials, the date, and a brief description.

If a pillbox is used as a container, ensure that the entire length of the hair is in the box and it is not crushed between top and bottom when the lid is in place. If paper is used, avoid kinking the hair or fiber when folding the paper. Mark the sealed container with your initials, the date, and a brief description.

Also submit articles of the individual's clothing. Package each article separately in evidence bags that are sealed with tape and labeled with your initials, the date, and a brief description.



ON OTHER SURFACES

If possible, submit the entire item to the laboratory to allow the analyst to remove hairs or fibers. If this is not possible, items of evidence may be visually inspected and tweezers used to remove fibers of interest. (Simple magnifiers and/or stereomicroscopes, along with a variety of side-lighting techniques, will aid in the collection of hairs/fibers.) Other methods such as tape lifting or gentle scraping are usually conducted after a visual examination. Tape lifts should be placed on clear plastic sheets, glass microscope slides, or another uncontaminated substrate that eases the search and removal of selected fibers. Do not overload the tapes. The tape lifts or any material recovered from scraping should be examined with a stereomicroscope and hairs/fibers of interest should be isolated for further analysis. Fibers on tape lifts may be removed using tweezers, other microscopic tools and solvents. Tape should not be attached to paper or cardboard.

Place these items in a pillbox or folded piece of clean paper. If you use paper, avoid kinking the hair or fiber when folding the paper. Place the pillbox or folded paper in an envelope for transportation to the laboratory.

Tape seal and label the container with your initials, the date, and a brief description.

DO NOT CRUSH HAIRS/FIBERS WHEN COLLECTING WITH TWEEZERS.

If you use a specialized evidence sweeper (vacuum) remove the material that accumulates in the filter and the filter paper and place in a folded paper container, then place the folded container into an evidence bag.

DO NOT USE A REGULAR HOUSE-HOLD TYPE OF VACUUM CLEANER AND BAG.

Tape seal the evidence bag and label it with your initials, and date. Include a brief description.

DO NOT USE ENVELOPES FOR PACKAGING FILTER SWEEPINGS OR FOR OTHER VERY SMALL MATERIALS.



COMPARISON STANDARDS- HAIRS AND FIBERS

Collection of hair samples from both victim and suspect is important. Collect and preserve hair as described in previously. Collect as comparison standards any articles of clothing or fabric that might have come in contact with the suspect. Likewise, collect samples of rugs, draperies, furniture, or upholstery material which might have transferred fibers to the suspect's clothing. Collect hair standards from pets or fur pieces found at or near the crime scene.

IMPRESSIONS

Impressions made by feet, footwear, tires, and tools are fragile and can easily be destroyed during a preliminary crime scene search. To prevent inadvertent loss of such evidence, one of the earliest concerns of any crime scene investigation should be the security of the scene and the collection and preservation of impressions. The following describes procedures for the collection and preservation of footprints, shoeprints, tire impressions, and tool marks as well as comparison standards where applicable and possible.

FOOTPRINTS AND SHOEPRINTS

Photograph each print that you have located. Follow steps 2 through 9 below.

Place a standard scale ruler (or other type of scale) next to the print. The scale needs to be on the same plane as the impression.

Take multiple photographs by holding (use of tripod is preferred) the camera directly over the impression at a 90 degree angle while illuminating the impression by holding a detached flash or strobe light, low and to the side of the impression.

Take photographs with the flash at a low and medium angle from several different directions.

Dental stone material should be utilized to pour casts. Mix 2 pounds of dental stone with 10 to 12 ounces of water to the consistency of pancake batter. The dental stone should not initially be poured directly into the impression.



Direct pressure could distort or destroy the impression. Start by pouring the mixture to the side and allow it to spill over the sides into the impression. Once the mixture has covered the bottom of the impression, the remaining dental stone may be poured directly into the impression.

Impressions in snow should be sprayed at an angle with snow print wax. Be careful not to hold the can too close to the impression because the blast of the aerosol will damage the impression. Evenly and thoroughly cover the impression with the wax. If a colored wax is being used and the impression is in the direct sunlight, block the sun's rays because the colored wax material will attract heat from the sun and cause the impression to melt rapidly. Allow the wax about 10 minutes to set. Consider taking another photograph of the impression after the wax coating has been applied.

Prepare the dental stone mixture using cold water or substitute some snow for the water in the mixture. This will help reduce the heat generated by the dental stone mixture. For casting impressions in the snow a slightly thicker mixture is needed. Use a stick or a spoon while pouring the cast, holding the object over the impression allowing the mixture to fall onto the stick or spoon before it flows into the impression. To help the thick dental stone mixture relax and flow into the impression fully, slightly agitate the upper surface of the dental stone with the stick/spoon after the mixture has been poured into the impression. Cover the cast (a box works well) and allow it at least 60 minutes to set. When removing the cast minimize touching the bottom surface.

When dry, scratch or mark your initials, the date, and an item number into the back of the cast.

Wrap each cast separately using corrugated paper and place in a well-padded box or container. **DO NOT REMOVE DIRT ADHERING TO THE CAST.** Use torn newspaper or packing material for padding.

Seal and identify box contents with a label.

Collect a comparison standard as soon as possible.

TIRE IMPRESSIONS

Follow same procedures as those described on page 73.

Collect a comparison standard as soon as possible.



TOOLMARKS

Whenever possible, preserve tool marks as you find them and submit the intact object bearing the tool marks to the laboratory.

If it is not possible to submit the intact object bearing the tool marks to the laboratory, remove that portion or section of the object bearing the tool mark and submit it to the laboratory (e.g., fender of car, door jams, etc.). Affix an evidence tag. Label it with your initials, descriptions, date, and an item number.

If it is not practical to remove the surface bearing tool marks, make a casting of the impression with silicone rubber or with some other high-definition casting material.

Before a portion or section is removed from a large item, photograph the entire item. Submit this photograph with the intact object being forwarded to the laboratory for examination.

NEVER insert a suspected tool or other object into an impression to check the fit. This can easily damage or contaminate the impression and/or the tool.

COMPARISON STANDARDS - IMPRESSIONS

Footprints: Collect shoes or other footwear worn by suspects and submit them to the laboratory for comparison purposes. Preserve any soil particles attached to this footwear.

Please do not submit a cast of a suspected footwear impression without a known shoe to which the cast can be compared.

Tire Impressions: Inked impressions of the tires should be submitted to the laboratory for comparison with the questioned impression. The inked tire impressions should be collected while the tires are on the vehicle. The inked impressions should include a full rotation of the tire tread. Do not submit the tire unless requested to do so by the laboratory. Also, preserve soil particles found on the tires. Package the soil according to procedures on page 86 which outlines collection and preservation of soil.



Tool marks: Collect any tools found at the crime scene that might have been used by suspects and send to the laboratory as standards. Also submit any tools later found in a suspect's possession (e.g., garage, car, etc.). Package the item as described on page 75 which outlines the collection and preservation of tool marks.

BITE MARKS

Photograph bite marks from a suitable distance to show location on the body. Photograph the mark close-up with the lens axis at 90 degrees to the surface to avoid distortion. Be sure to include a scale adjacent to the mark in some of the photographs.

Swab the site with cotton swabs moistened with a minimal amount of distilled water. Allow to air dry. Place in a new, unused envelope and seal with identifying data on the outside.

If a bite mark is swabbed from a person's body for DNA analysis, a known swab from that person must also be submitted.

If possible, secure the services of a qualified forensic odontologist for such work. The odontologist using dental replica materials may be able to make reproductions of the bite marks.

LIQUIDS AND VISCOUS SUBSTANCES

Liquids such as alcohol, gasoline, and viscous substances such as glue, oil and ink can link a suspect to a crime. When collecting these substances, handle carefully to prevent evaporation and contamination. Be cautious of possible ignition sources. The following describes procedures for collection and preservation of liquids and viscous substances, as well as comparison standards where applicable and possible.



LIQUIDS

Handle containers with cloth gloves.

Dust containers holding liquids for latent fingerprints. Process and submit any prints that appear.

Pour non-corrosive liquids into unused metal cans no larger than quart size.

Use glass or plastic containers with appropriate tops for corrosive (acid) liquids.

If liquid has been spilled, spoon or scrape as much as possible of the liquid into a tightly capped glass bottle. Even if only a few drops can be obtained, a meaningful analysis can be performed.

If the liquid has been spilled onto a porous surface such as carpeting or soil, place the wet portion of the material into tightly capped glass or metal containers.

Pack the bottles carefully and surround them with foam rubber or polyurethane chips or similar packing material.

Make sure each sample container is identified in ink with your initials, a brief description and the date. In addition, label the packing boxes FRAGILE.

If a liquid is suspected of being hazardous (i.e., flammable) DO NOT SHIP VIA U.S. MAIL. Check with parcel delivery services for shipping instructions.

Collect a comparison standard.

VISCOUS SUBSTANCES

Handle containers with cloth gloves.

Dust containers for latent prints and submit any prints that appear.

If the substance appears to be grease, do the following:

Small Amounts: Wipe up the substance with a cotton swab and place in a labeled plastic bag and seal. Small smears may be sufficient for analysis.



Large Amounts: Transfer substance to a sealable plastic container using cotton swabs or a plastic spoon. Seal and identify the container.

If the substance appears to be oil or glue, do the following:

If possible, transfer by pouring into a clean, unused metal can with a tight-fitting lid.

If the material is in a tight-fitting container that is not larger than one pint, submit it in the original container.

If the substance is too viscous for pouring, transfer it to a container using a clean plastic spoon or other instrument.

Package all items as described on page 77; making sure each container is labeled in ink with your initials, description, the date, and an item number.

COMPARISON STANDARDS - LIQUIDS AND VISCOUS SUBSTANCES

Submit samples of any evidentiary substances found in a suspect's possession or in his belongings so they can be compared with substances found at the scene of a crime. If several samples are found, collect a quantity of each separately. Package and identify comparison samples as above.

METALS

Many of the objects used in the commission of a crime (guns, knives, ice picks, prying instruments, etc.) are composed of metal. Metals can show a wide range of identifiable characteristics, striations, surface imperfections, scratches, and elemental composition. The following describes procedures for collecting and preserving various forms of metals as well as a comparison standard where applicable and possible.

FILINGS

Collect filings caused by sawing, drilling, or filing by carefully lifting or scraping into a plastic bag (make sure filings are dry before packaging). Use a non-metallic device to transfer the filings to the collection bag.



Tape seal the bag. Affix an evidence tag labeled with your initials, the date and a brief description.

Collect a comparison standard.

FRAGMENTS

These include types of prying instruments, bullets, bullet fragments, grillwork, headlight frames, dies, small tools, etc. They can be un-embedded or embedded in some matter.

Un-embedded:

Collect and carefully place in plastic bags or other suitably sized containers.

Package the items. Use padding that prevents any damage to identifying characteristics or to the area along a fracture plane.

Tape seal and label with initials, date and a brief description.

Embedded:

Allow a laboratory to extract the fragments from the material in which they are embedded.

Package as much of the solid matter holding the fragments as practicable.

Use a suitably sized container (box, etc.) to hold the material.

In all cases, either label the container or affix an evidence tag directly to the material with your initials, description and the date.

Collect a comparison standard.



Large Sections:

Photograph visible marks on safe doors or other objects that are too bulky to remove. Be sure to include a scale in some of the photographs.

Preserve visible marks by casting in a silicone rubber compound, if available.

Package and label the casting with initials, date and a brief description.

COMPARISON STANDARDS - METALS

At the crime scene: An item such as a safe door which has been pried open serves as a location to obtain a standard source for filings on the floor. Collect, package and label such filings with initials, date and a brief description.

In the suspect's possession: Such tools or items as a file, a pry bar or metal filings found in a suspect's shoes, cuffs, pockets, or other articles of clothing serve as a standard against which specimens already identified at the crime scene can be compared. Collect, package and label with initials, date and a brief description.

PAINT

Paint evidence can be in the form of liquid, chips, or smears. The following describes procedures for collecting and preserving various forms of paint as well as comparison standards where applicable and possible.

NOTES:

1. Tape lifts should not be used for paint sampling.
2. Do not submit razor blades used for collecting the sample. Dispose of razor blades properly.
3. Paint scrapings can produce tiny particles. These particles can easily escape from corners of envelopes and paper sacks. To ensure the particles are not lost, package particles first in a paper bindle (folded long way twice and then folded twice again). The paper bindles should then be packaged in separate envelopes.



CHIPS AND SMEARS

Small portable objects and clothing containing paint chips or smears:

Place each item in a separate paper bag making sure the area containing the paint is protected from any abrasion or destruction. Cover these areas with paper or similar material.

Pick up chips either with tweezers or by scooping them up with a piece of paper. Place chips into a paper bindle and place the paper bindle into a small envelope.

Tape seal each envelope and label with your initials, description, the source and the date.

Collect a comparison standard (known) in a similar fashion as described above.

Package the known and questioned envelopes separately.

Large non-portable objects:

Scrape the paint fragments off area using a clean razor blade, wood tongue depressor or scraping instrument or gently hitting with a hammer on opposite side.

Remove the entire sample to bare metal or wood if necessary. Try to not create a “powdery” sample when scraping.

Tap to dislodge the fragments onto a clean piece of paper that has been folded into a bindle.

Transfer the fragments from the paper into a plain paper bindle that can be tightly sealed.

DO NOT ALLOW PAINT TO TOUCH THE ADHESIVE OF THE TAPE SEAL.

Tape seal containers and label with your initials, description, the source, the date, and an item number.

Collect a comparison standard.

Wet paint smears on cloth, wood, metal, or glass:



Let paint dry completely before placing smeared item in protective container.

If possible, mark item with your initials in an inconspicuous place.

Place item in a container, tape seal and label with your initials, description, the date, the source.

Collect a comparison standard.

LIQUID

Follow procedures for Viscous Substances (See page 77).

COMPARISON STANDARDS - PAINT CHIPS AND SMEARS

Use a clean, NEW razor blade or CLEAN hammer to remove paint samples from two areas on the object where paint was found and one sample from the suspected source of the questioned paint. Package separately in a paper bindle within an envelope and label all samples collected from different locations. Try to obtain at least 1/3 square inch of the surface area for each sample with all paint layers represented. Submit all available chips or scrapings. If the object is small, send the entire object. Package and label all items with initials, date and a brief description.

QUESTIONED DOCUMENTS *(Analysis currently not offered by the OSBI)*

Questioned documents contain a wide variety of identifiable characteristics that can be used to corroborate other evidence, establish that a crime was committed and identify or clear a suspect. The following describes procedures for collecting and preserving questioned documents as well as standards for comparison where applicable and possible. It may be advisable to contact the document examiner prior to collecting known samples so the most complete and accurate material is available for comparison.



CHARRED

Search area of charred documents carefully. A stray breeze could destroy evidence.

Photograph the charred paper remnants to record their location and the position of fragments. Photograph and record any decipherable writings that may be apparent on flat sheets.

Lift the charred documents by sliding a cardboard sheet, piece of glass or metal plate under the evidence, then slide the material into a rigid container lined with cotton batting. Use tweezers to pick up small fragments.

Charred documents found in containers such as wastebaskets or safety deposit boxes should be left in the receptacle where found and the entire container submitted. Label the evidence container with your initials, description, the date, and an item number.

The document should be hand-carried to the laboratory, if possible.

FLUID, BLOOD SOAKED OR BURIED

Air dry and follow the procedures described above if the document was not submerged in fluid or is not saturated. If the document has been submerged and is saturated, or if it was buried and is extremely fragile, it should be placed in a freezer while you contact the laboratory for additional guidance.

Do not attempt to wring out any fluid or wait for it to dry.

INTACT

Whenever possible, submit the original document rather than a photograph, photostat, or other type of copy.

Handle the documents carefully to preserve latent fingerprints.

Mark the document with your initials, the date, and an item number in a non-critical area of the document. Place it in a protective covering if it is fragile or might be subject to rough handling.



DO NOT USE STAPLES OR PINS ON THE DOCUMENT.

DO NOT FOLD THE DOCUMENT.

Place the document in a protective covering such as an envelope or plastic covering. (Do not seal plastic covering if the document will be processed for fingerprints.) Tape seal and label with your initials, the date, and a brief description. Mark the evidence or container prior to placing the evidence inside to insure no indentations will be placed onto the document.

COMPARISON STANDARDS - QUESTIONED DOCUMENTS

There are two kinds of comparison standards (also called “known” documents) used in questioned document examinations:

Non-request or collected known documents are those that are obtained from normal course of business sources (employment records, banking records, institutional records, etc.) and which can be presented to a court by a record custodian as having been prepared by the suspect. In searching for non-request known documents, the investigator should confine the material collected to that which is comparable to the questioned. Only known script handwriting can be used in comparison of questioned hand printing (writing). Only paper of similar color need be obtained for a comparison with a questioned paper.

Request or dictated known documents are those produced specifically for the investigation (e.g., handwriting produced by the suspect as dictated by an investigator, typewriting taken from a suspect machine by an investigator, paper or ink samples taken from the suspect’s residence, etc.). Record the origin of all known documents.

Request Known Handwriting:

Known writings obtained by dictation from the suspect are generally considered physical evidence and are not protected under the 5th Amendment. If the suspect is not cooperative in providing known writings, they are usually obtained by grand jury subpoena or court order. When producing known writings, the suspect should be seated comfortably at a table and given a pen and paper (similar to the type used in the questioned document) preferably similar in size and color.



Dictate the questioned text several times. If the material is extensive, have the suspect write a substantial part of it. Each time the suspect writes the dictated passage, samples should be removed from the suspect to prevent them from referencing what was previously written. **DO NOT ALLOW THE SUSPECT TO SEE THE QUESTIONED DOCUMENT.** During the early phase of dictation, try not to give instructions as to spelling unless it is apparent the suspect cannot proceed without assistance. After a period of dictation, inspect the writing for any indications of disguise (e.g., extreme speed or slowness) and make sure the writing is properly script or cursive. Give corrective instructions and repeat the dictation if necessary. Record any instructions. Collect between 20 and 40 sample writings.

Request Known Typewriting:

Upon obtaining access to the suspect manual typewriter, record the make, model and serial number. Record any settings on the typewriter such as touch control and margin. Use the typewriter in the condition found to prepare a text similar to the questioned material, and then send the text to the laboratory for preliminary evaluation. If the type font, size and spacing matched the questioned text, it will be desirable to have the typewriter sent to the laboratory for examination. If no suspect machine is available, a careful analysis of the questioned text at the laboratory will frequently reveal the make of typewriter and sometimes the exact model.

Modern typewriting examinations are a three-part examination: The machine, the typing element and the ribbon. Modern typewriters have become a housing for various interchangeable typing elements and ribbons; and usually the specific machine cannot be positively identified. However, ribbons and typing elements can often be identified. If a suspect typewriter is located, no comparable text need be obtained. Rather, seize all potential suspect ribbons and typing elements and forward them to the laboratory with the questioned document. If no suspect machine is available, a careful analysis of the questioned text at the laboratory will frequently reveal possible makes of the typewriter, as well as provide information regarding ribbons and typing elements.

Request Photocopier Materials:

Specific machine identification can usually be made if you have located the correct machine and submit the correct standards. Upon obtaining access to the suspect photocopier, record the make, model, and serial number. If a maintenance record for the machine is available, obtain a



copy of it. With no paper on the platen or in the machine, make five (5) blank copies with the cover down. Place a sheet of blank white paper on the platen and make five (5) more blank copies with the cover down. Remove the paper, raise the cover and make five (5) more copies (sky shots - these copies will appear black in color.) It is very important to obtain samples of copies made on the machine around the same time as the questioned documents. This is because many defects are transient (ever changing) and may allow “a window” of creation to be determined. Obtain a reasonable quantity of copies made on the machine before, during and after the questioned documents. If you determine the need for a photocopier examination, consider contacting the laboratory for specific guidance.

Request Known Paper or Ink:

In obtaining any known materials from a suspect, either with the subject’s cooperation or through a search warrant, be alert to the presence of any document materials which may have been a source of the questioned material. Known inks and papers can be matched to the questioned document. A tablet may bear a record of indented impressions from the questioned document. A roll of stamps may have torn edges that match a stamp on a questioned envelope. A paper cutter may create striations that are the same as found on the edges of a stack of counterfeit food stamps. A form may have been from the same printing as the questioned form. Rubberstamps such as those used for date or address stamping, may bear individual characteristics which can be positively matched with evidential stamping.

SOIL *(Analysis currently not offered by the OSBI)*

Since soil and minerals may provide proof that a suspect or object was at the scene of a crime, samples of soil must be representative of the soil characteristics at the crime scene area. The following describes procedures for collecting and preserving caked mud, dry soil, mud and comparison standards for such items where applicable and possible. (Note: Soil samples may be layered. Try not to disturb the layering effect when collecting sample.)



CAKED MUD

Use a spoon, knife, or other instrument suitable for collecting pieces of caked mud. Any instrument used **MUST BE THOROUGHLY CLEANED** after each sample is taken.

Place in a clean new paper bag any personal articles such as clothing and shoes, which bear traces of caked mud. Place each article in a separate bag.

Tape seal each bag and label with your initials, the date, the source, and a brief description.

Collect a comparison standard.

DRY SOIL

Collect at least one (1) cup of all available soil when possible.

Place dry soil in a box or other similar cardboard container. Tape seal the container and label it with your initials, the source, the date, and a brief description.

DO NOT USE ENVELOPES FOR DRY SOIL.

DO NOT USE GLASS CONTAINERS.

Collect a comparison standard.

MUD

Use a clean knife and scrape mud off objects that cannot be sent to the laboratory.

Place the scrapings in a plastic or cardboard container.

Tape seal the container and label it with your initials, the source, the date, and a brief description.

Collect a comparison standard.



NOTE: Make observations/notes of the surrounding environment (is it by a pond? A tree... what type of tree? Is it by a lake?). Take pictures of the area. Items such as these will help corroborate and/or explain items in the soil sample, such as tire rubber from the road, pine pollen from a tree or diatoms from the lake.

COMPARISON STANDARDS - CAKED MUD, DRY SOIL, AND MUD

Collect samples of surface (not 6 inches down) soil from the scene of the crime out to 100 feet on the four sides of the crime scene. Samples should consist of approximately one (1) cup of soil. Show the exact location of samples taken in a crime scene sketch. When taking samples from around a foot impression that is deep, take samples from the different levels appearing at the edge of the footprint.

Place each sample in a separate, leak-proof container. Tape seal the container and label it with your initials, the source, the date, and a brief description.

NOTE: DO NOT collect known samples from an area beneath where you have made footwear or tire track casts.

COMPUTERS AND PERIPHERALS

Procedures conducted during a computer system seizure

Photograph the computer display screen.

If the computer is OFF – leave it off and disconnect the power cord from the computer. NEVER use the power button or switch to turn on or off the computer. To avoid contamination DO NOT re-boot the system after evidence is collected.

If the computer is ON, photograph the display and quickly attempt to determine what operating system is being run. If the operating system is familiar – turn off using conventional shut down procedures. If you do not recognize the system, disconnect the power cord from the computer. If you do disconnect the power cord prior to proper shut down, recognize that some data in the system can be lost.



After disconnecting the power cord, listen for any additional power sources (laptops have batteries and some desktop computers have back-up power systems.) If you determine there is an additional power source, disconnect it.

Disable or disconnect the modem(s) or external communication devices at their source.

Disconnect the power to the printer and/or all peripheral devices at their source.

NOTE: Allow the printer to complete its print-out before disconnecting power. The print-out could be evidence.

Place evidence tape over all drive slots.

Photograph connections to all equipment.

Label all connections for later re-assembly.

Photograph all labeled connections and diagram them, including computer network connections.

Photograph the area after the computer is removed.

Search the area around the computer specifically for passwords or other related information.

Seize all books, manuals, software, disks, media and related data to the computer system or peripherals.

Document all items seized and photograph when finished.

In the event of network systems, contact a forensic computer examiner in the OSBI Computer Crimes Unit.



MISCELLANEOUS

Items such as cigarette butts, tobacco, jewelry, magnetic tape recordings, or writing instruments can all serve as evidence to connect a suspect to a crime. Each item, either through its use or basic structure, can provide a unique identifiable characteristic. For instance, tape recordings of anonymous voices received as part of a threat prior to a bombing or extortion may be identified with known voices of a suspect through voice print analysis, provided care is exercised during the recording of questioned and known voices. The following describes the procedures for collecting and preserving cigarette butts, tobacco, jewelry, magnetic tape recordings, small objects, writing instruments, as well as comparison standards where applicable and possible.

CIGARETTE BUTTS - TOBACCO

Pick up the cigarette butt with a piece of paper or with tweezers and place in a small paper bag.

DO NOT HANDLE THE CIGARETTE BUTT WITHOUT GLOVED HANDS.

Tape seal the container and label it with your initials, the source, the date, and a brief description.

Document the exact location of the cigarette butt. Determine if anyone who had regular access to the area that is now a crime scene smokes. If they do, known DNA reference samples from those individuals may need to be obtained at a later date.

If the cigarette butt is wet, let it air dry before packaging. Avoid packaging in air tight containers.

Empty any tobacco material from pipes or clothes' pockets into a paper bindle. Mark and tape seal as above.

COMPARISON STANDARD - CIGARETTE BUTTS - TOBACCO

No comparison standard of the cigarette material need be collected. If DNA (PCR) testing is desired, however, collect known DNA reference samples from both victim and suspect(s) as previously described.



JEWELRY

Handle with tweezers or cloth gloves.

If appropriate, dust for fingerprints and place in a suitable crush-proof container. If sample is to be analyzed for DNA, the OSBI should be consulted prior to any dusting. DNA analysis destroys latent prints and latent print analysis can compromise DNA analysis. Depending on case circumstances, only one of the two analyses can likely be performed.

If the composition of precious metals such as gold, silver, or platinum must be determined in order to provide common origin, send appropriate metal samples for comparison purposes.

Label each sample container with your initials, description, the date, and an item number.

COMPARISON STANDARD - JEWELRY

When possible, submit comparison standard samples of jewelry along with any questioned samples. The origin of some stolen jewelry may be traced to a particular jewelry store by analyzing the adhesive used to glue a precious stone to its setting. Known samples of the adhesive used by the jeweler should be submitted to compare with questioned samples. Place samples in crush-proof containers and seal them, label each item container with one's initials, date and a brief description.

SMALL OBJECTS

At each crime scene, search for small objects such as burned matches, particles of glass, broken fingernails, cigarette butts, etc.

Follow procedures outlined in this handbook for each of the known items. If you do not have specific directions for an item of evidence, place it in a crush-proof container without touching it directly with your fingers. Tape seal the container and label it with your initials, the source, the date, and a brief description.



COMPARISON STANDARDS - SMALL OBJECTS

Comparison samples of small objects or items found in the possession of a suspect or in the suspects' belongings should be submitted so that a comparison with items found at the crime scene can be made.

Package and identify comparison samples with initials, date and a brief description.

WRITING INSTRUMENTS

Handle with tweezers or cloth gloves being careful not to smudge fingerprints.

Dust for fingerprints and place in a suitable crush-proof container. If sample is to be analyzed for DNA, the OSBI should be consulted prior to any dusting. DNA analysis destroys latent prints and latent print analysis can compromise DNA analysis. Depending on case circumstances, only one of the two analyses can likely be performed.

Look for and submit instruments bearing teeth marks.

Place the instrument in a suitable crush-proof container. Identify the container by marking with your initials, description, the date and an item number.

Collect a comparison standard.

COMPARISON STANDARD - WRITING INSTRUMENTS

Collect any writing instruments found in the possession of a suspect or the suspects' belongings in the manner described above. Package and identify comparison samples as described above.



SECTION III: **EVIDENCE SUBMISSION TO A LABORATORY FOR ANALYSIS**

The OSBI Laboratory assists all law enforcement agencies in the discovery and detection of criminal activity. Evidence for forensic examinations related to suspected criminal activity is accepted from all law enforcement officers and district attorneys.

REQUEST FOR LABORATORY EXAMINATION (RFLE)

A completed OSBI Request for Laboratory Examination (RFLE) form must accompany the items submitted. If an officer is using the OSBI's "prelog" option, he/she will need to present the "packing slip" to the lab with the evidence being submitted.

Only one RFLE form is needed per case. If additional space is required for the description of items, etc., an additional sheet may be attached.

EXCEPTION: Blood Alcohol Collection Kits do not require an RFLE. Since an Officer's Affidavit Document (provided in the kit) must be submitted along with the Blood Alcohol Kit, the Affidavit may substitute for the RFLE. When a Blood Alcohol Kit is hand delivered to the OSBI, an RFLE is required in order to document the transporting officer.

SPECIAL TYPES/AMOUNT OF EVIDENCE SUBMITTED

MOST PROBATIVE ITEMS FIRST

The OSBI Laboratory strives to perform the most thorough analysis possible in all cases received. However, in cases involving forensic biology or DNA analysis where a large amount of evidence is being submitted for analysis, it may be necessary for the laboratory to ask that the evidence be limited. The initial items submitted for analysis should be those of greatest interest to the investigator for initial acceptance and analysis.



The case officer or his/her representative will be asked which items provide the most information to the investigation. Examples of questions that may be asked are:

- What information do you hope to gain from the analysis of this item?
- How does the information obtained from this item further your investigation?
- When considering this item in relation to all the others, how does this one rank in terms of importance to the case?

The value of evidence to an investigation may depend on many factors such as location from which the evidence was recovered, the nature of the evidence, or the stories of any persons involved in the investigation.

If the analysis of the initial items fails to yield information which furthers the investigation and if additional items are available for analysis which may provide information necessary to the case, then the set of items of greatest importance to the investigation may be submitted. In some circumstances, these additional items may be submitted in the initial submission with the understanding that they may not be analyzed.

Analysis will continue in this manner until either the questions attempting to be answered by the investigator are satisfied or all the evidence has been analyzed, whichever occurs first.

A Criminalist from the appropriate discipline should be contacted to assist an officer in determining what items may be most valuable to an investigation either at the laboratory at the time of submittal or over the telephone prior to the officer proceeding to the lab.

SEXUAL ASSAULT KIT ONLY

Often times, a sexual assault case will involve the analysis of a sexual assault kit. Most times, the kit is the most important evidence in the case.

In cases where a sexual assault kit is to be analyzed, please submit the sexual assault kit only. This helps to streamline analysis and can result in getting results back sooner on sexual assault cases.



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If analysis of the kit does not yield results which aid in the investigation or if the sexual assault kit is unnecessary, then please consult an OSBI Forensic Biologist to determine what additional items should be submitted.

It is often beneficial to the analyst to have a copy of the Sexual Assault History Form(s) that the Sexual Assault Nurse Examiner (SANE) completed during the examination. These forms provide valuable information that can assist in selecting the proper items for submission in sexual assault cases.

NOTE: In all cases with a sexual assault kit, please package the kit **SEPARATE** from all other items of evidence in the case.

NOTE: In cases where blood and urine are collected for toxicological testing, please package them separate from the sexual assault kit and all other evidence. Also keep them refrigerated prior to submittal to the laboratory.

EVIDENCE NOT NEEDING ANALYSIS

If evidence is collected that does not need to be analyzed at the present time, it will not be accepted by the OSBI laboratory. The OSBI will **NOT** accept additional evidence which does not need to be analyzed in order to “keep all the evidence together.” This evidence must be retained at the requesting agency until either analysis is necessary or it can be lawfully destroyed.

NOTE: DO NOT submit drug field test kits.

ANALYSIS NOT PROVIDED BY THE OSBI

If evidence needs to be analyzed but the analysis is not able to be performed by the OSBI, the evidence will not be accepted. However, every possible attempt will be made by the OSBI laboratory to provide assistance in locating a laboratory that can perform the analysis. Examples of analysis not provided by the OSBI include mitochondrial DNA testing, paternity statistics, questioned documents, etc.



COMPUTER/DIGITAL EVIDENCE

Computer and evidence that is digital in nature such as cell phones, flash drives, etc. are not analyzed by the OSBI Laboratory system. This evidence is handled by the OSBI Computer Crimes Unit. If computer or digital evidence needs to be analyzed in a case, please contact the Computer Crimes Unit Agent in Charge 24 hours a day at (405) 848-6724 or at 1-800-522-8017.

EVIDENCE PACKAGING

EVIDENCE SAFETY

The safety of officers and members of the OSBI Laboratory staff is critical.

Evidence must be packaged so that it is as safe as possible to handle by anyone who may eventually be a part of the chain of custody.

Some examples of hazardous evidence and proper packaging are:

GLASS

Glass objects must be packaged in a manner such that breakage will be prevented, and in the event that breakage could occur or has already occurred, glass objects must be packaged so that they do not pierce through any part of the evidence container. This can be accomplished through the use of sturdy boxes, plastic buckets or containers, and sharps containers.

Proper labeling must also be visible on the outer package to indicate that glass is present, so that any analyst opening the package will be alerted to the presence of a potential hazard.



Glass items that should be packaged in a manner to prevent breakage or to prevent fragments from penetrating the evidence containers would be:

- Glass smoking devices such as crack or meth pipes
- Glass jars/bottles
- Glass test tubes
- Glass from windows
- Glass from car headlamps

SHARPS

Similar to glass objects, sharp items must be packaged in a manner that would prevent the penetration of an outer container by the object.

Knives and other cutting instruments must be placed into plastic, puncture proof containers for the safety of all individuals handling the evidence.

Syringes must be placed into commercially available sharps containers. See section titled Evidence Requiring Special Handling on page 102 for more information about the submittal of syringes.

Proper labeling must also be placed on the outer package to indicate that a sharp object is present, so that any analyst opening the package will be alerted to the presence of a potential hazard.

Examples of sharp objects that require special packaging are:

- Syringes
- Knives
- Machetes
- Swords
- Broken glass
- Sharpened objects commonly known as “shanks”
- Any object with a sharp edge or point that may pose a hazard



BIOHAZARDS

Biohazards must be packaged in a way so that they can still be analyzed but do not pose a threat to anyone handling the evidence.

Objects that have wet blood or other wet body fluids on them should be dried before being packaged for submittal.

If properly drying the object is not possible, then the object can be packaged into a plastic bag and transported immediately to the laboratory for drying. Plastic bags cannot be used for long term storage. Laboratory personnel receiving the evidence must be made aware that it is wet and needs to be dried upon submittal.

Objects with dried body fluids requiring analysis need to be packaged in individual brown paper sacks.

Proper labeling must also be placed on the outer package to indicate that a biohazard is present, so that any analyst opening the package will be alerted to the presence of a potential hazard.

HAZARDOUS CHEMICALS/UNKNOWN LIQUIDS

Chemicals that pose a hazard to analysts such as those recovered from suspect clandestine laboratories should NOT be submitted in bulk quantities to the laboratory for analysis.

A smaller representative sample of any hazardous chemicals should be taken and properly packaged so that any spill or leakage of the chemical can be contained.



SEALING OF EVIDENCE

A proper seal helps to ensure that a complete and secure chain of custody is maintained for all evidence submitted to the OSBI Laboratory.

A proper seal following OSBI policy must be applied to each package in order for it to be submitted to the laboratory. A proper seal must have the following properties:

- Initials on the tape seal.
- Does not allow the contents to readily escape.
- Any attempt to enter the container would result in obvious damage or alteration of the container or seal.

A seal can be comprised of any one of the following:

- Two inch tape (3M® 3750 or equivalent)
- Evidence tape
- Lock sealing

Staples cannot be used by themselves to constitute a proper seal.

NOTE: Evidence such as weapons which only need test firing or serial number restoration, may be tagged with an identification tag and do not require a container.

PACKAGING

Packaging of evidence must be done to protect the evidence and prevent any type of deleterious change to the evidence.

Examples of items used as packages for evidence are:

- OSBI evidence envelopes
- Brown paper sacks
- Boxes
- Manila envelopes
- Sexual assault evidence collection kits
- Plastic sharps containers



DO NOT overfill evidence containers. If necessary, package evidence into multiple containers where evidence is not being crushed or causing packages to bulge. This will insure that evidence seals remain intact and that evidence will not be damaged.

In some instances, a standard package is not available or suitable for some types of evidence such as large items. Some possible alternatives are:

- Find a suitable sampling method such as taking a cutting, scraping, or swabbing of the item in question.
- Contact the OSBI Laboratory to determine if any packaging is available for the item or consult with an analyst on the best method of submittal.
- Use makeshift packaging ensuring that all potential openings are properly sealed.

METHODS OF SUBMITTAL

PERSONAL DELIVERY

Personal delivery of evidence is the best method in those cases where the investigation or evidence is complex. Personal delivery is strongly recommended when there are many separate items of biological evidence, which can deteriorate quickly.

One advantage of this is that the number of persons in the chain of custody is minimized. Another advantage is that this method permits personal consultation and discussion of the case and evidence by the investigator and the analyst which is frequently beneficial, particularly in complex cases. Information concerning the case is easily obtained from the submitting officer.

Avoid the use of messengers. Officers unfamiliar with the case under investigation should not deliver the evidence. Such persons normally do not have information about the investigation needed by the laboratory. In addition, such procedures add one more individual to the chain of custody and he/she could be called to testify regarding such evidence possession if the case goes to trial.



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If evidence must be delivered by someone other than the requesting officer, ensure that a copy of the police report is submitted with the evidence.

Analysts can be contacted through OSBI Headquarters (1-800-522-8017) 24 hours a day or through the OSBI Forensic Science Center (1-800-522-8523) and regional offices and laboratories (see pg. 6, REQUESTING OSBI ASSISTANCE for contact information) at any time from 8:00 a.m. to 5:00 p.m., Monday through Friday.

MAIL SHIPMENT

Ship evidence so that chain of custody can be maintained by receipts, registered mail, etc.

Package contents so that breakage or contamination will not occur during shipment.

Restrictions: Follow postal regulations.

DO NOT MAIL EXPLOSIVES OR OTHER PROHIBITED ITEMS.

DO NOT MAIL SEROLOGY EVIDENCE.

DO NOT MAIL UNRELATED CASES IN THE SAME MAILING CONTAINER.
(Use separate containers for each case.)

DO NOT use an OSBI evidence envelope as the outermost mailing container. The evidence envelope must be placed inside a plain manila envelope.

Seal the outer package completely, even if fourth-class mail is used. All evidence must be properly sealed according to the section titled SEALING OF EVIDENCE on page 99.

Do not tie only with string or use scotch tape.

Seal completely with paper tape or other sealing tape. Initial and date on the tape seal.



Tape a letter-size envelope containing the OSBI evidence submittal form (RFLE) and any pertinent document (such as an officer's report) on the outside of the mailing container. This allows the OSBI physical evidence technician to record/document the case information without having to open the sealed package. Do not enclose the RFLE inside the package with the evidence.

Any evidence that is received by the OSBI Laboratory that has been submitted by mail that does not meet the above criteria will be returned unopened to the submitting officer with instruction on the correct submittal procedure.

For mailing addresses, see REQUESTING OSBI ASSISTANCE on page 3.

EVIDENCE REQUIRING SPECIAL HANDLING

Contact the lab for instructions concerning the following hazardous materials and items:

- **Explosives**
Do NOT deliver or ship explosive samples to the OSBI laboratory. Firearms, flammable, combustible, and toxic substances are to be submitted in person. Suitable instructions will be given concerning procedures to follow. Note: Explosive analysis is NOT performed at the OSBI at this time. Please contact the local office of the Bureau of Alcohol, Tobacco and Firearms for further information.
- **Other Dangerous Materials**
Due to shipping regulations, occasionally special methods must be employed. In addition, for the safety of both transporting officers and the laboratory staff, it is urged that telephone contact be made prior to delivering dangerous items.
- **Perishable Materials**
If perishable materials are to be shipped, contact the OSBI Laboratory for instructions.



- **Syringes**
Because of safety issues, syringes are generally not accepted at the OSBI. However, exceptions and notes are listed below:
 - o Submit only syringes and needles that must be analyzed to make the case. Discuss the case with your prosecutor before submitting syringes. Include a notation on your submittal about the need for analysis.
 - o A syringe (or syringe needle) will be accepted for analysis only if there is a clear and definite requirement to analyze it, such as being the only item in the case. When there are other items submitted in a drug case that will create a felony charge, syringes and needles should not be submitted for analysis.
 - o Retain sharps, needles, and syringes in your possession or properly dispose of them.
 - o The practice of submitting syringes and needles to “keep them with the rest of the evidence” will no longer be acceptable.
 - o When submitted to the OSBI for analysis, syringes must be placed in a commercially manufactured syringe tube. No exceptions will be made.

- **Liquids**
Any liquid materials submitted to the laboratory must be packaged in a manner that insures that the liquid will be contained should a leak or spill develop. Typically this type of evidence will be packaged into a plastic bucket. Improper packaging of liquid items can result in the destruction of evidence in other cases should the item leak out of its container. If the liquid is contained in a glass container, the item must be packaged to prevent breakage of the container, the containment of the broken pieces should the container break, as well as prevent the leakage of its contents. If containers are large, contain hazardous materials, or contain bulk amounts of liquids, it may be necessary to sample the liquid and have the remainder of the liquid destroyed.



EVIDENCE ANALYSIS AND LABORATORY REPORTS

On completion of analysis of evidence, written laboratory reports are submitted to the District Attorney and the head of the law enforcement agency and/or other officer requesting the examination, if appropriate, unless requested otherwise. The analyst signing the report is the person responsible for the examinations and will be able to testify concerning his or her findings.

RETURN OF EVIDENCE

Upon completion of analysis, the evidence will be returned to the original requesting agency.

NOTE: Any tangible property, material, items, objects, or documents in the custody of any employee, which was acquired during the course of an official OSBI criminal investigation, which is not subject to forfeiture and has no evidentiary value for court purposes, shall be returned to its lawful owner without unnecessary delay.



SECTION IV: **LABORATORY ANALYSIS**

Information To Our Customers

The following documents are included in the Appendix and provide specific information useful to our customers:

“Notice to Customers” for information regarding the review of requests, changes to contracts, subcontracting analysis, deviations from analytical procedures, and selection of methods by the OSBI laboratory when evidence is submitted for analysis;

“Evidence Acceptance Requirements” for an outline of rules that must be followed in order to submit evidence to an OSBI laboratory;

“Evidence Sealing Guidelines” for a quick-reference guide on sealing various packages for submittal to an OSBI laboratory;

“Laboratory Facilities and Available Services” for a current listing of services provided by the OSBI; and

“Alternate Service Providers” for a listing of agencies available to provide services which are not available through the OSBI laboratory.



SECTION V: GLOSSARY

This is a glossary of scientific terms used in this manual, in reports, and in testimony. It is provided to help clarify statements and to allow officers and analysts to communicate more effectively.

Accelerant	An ignitable liquid or material used to increase rate and/or intensity of burning.
Acid-Etch Method	A method for the restoration of obliterated writing or serial numbers on metal by using acid to remove the metal surrounding the numbers.
Allele	Any of several alternative forms of a gene located at the same point on a particular pair of chromosomes. For example, the genes determining the blood types A and B are alleles. A form of genetic expression (as, for green or light brown eyes); alleles are inherited separately from each parent.
Analgesic	A drug or substance that lessens or eliminates pain.
Caliber	The diameter of the bore of a rifled firearm. The caliber is usually expressed in hundredths of an inch, or millimeters, e.g., .22 caliber and 9 mm.
Chemical Analysis	An analysis that reveals the chemical composition of a pure substance or mixture by type (qualitative) and/or by the amount of each component present (quantitative).
Class Characteristics	Properties of evidence that can only be associated with a group and never with a single source.
Common Origin	Materials originating from the same source, natural or manufactured.
Compound	A pure substance composed of two or more elements.



Depressant	A substance used to depress the functions of the central nervous system. Depressants calm irritability and anxiety and may induce sleep.
DNA	Abbreviation for deoxyribonucleic acid - the molecules carrying the body's genetic information. DNA is double-stranded in the shape of a double helix. The molecule that encodes genetic information.
Ejector	The mechanism in a firearm that throws the cartridge or fired casing from the firearm.
Element	A collection of atoms having the same atomic number. An element cannot be broken down into simpler substances by chemical means.
Enzyme	A type of protein that acts as a catalyst for certain specific reactions.
Extractor	The mechanism in a firearm by which a cartridge or a fired casing is withdrawn from the chamber.
Gauge	Size designation of a shotgun, originally the number of lead balls with the same diameter as the barrel that would make a pound. For example, a 12-gauge shotgun would have a bore diameter of a lead ball 1/12 pound in weight. The only exception is the .410 shotgun in which bore size is .41 inch.
Gunshot Residue	Material from the primer, powder, cartridge casing, and bullet deposited on the hands of the shooter or on a wound of a victim shot at close proximity during a firearm discharge. Barium, lead and antimony from the primer compound are principal gunshot residue components.
Hallucinogen	A substance that induces changes in mood, attitude, thought, or perception.
Heavy Petroleum Distillate (HPD)	The heavy or large petrochemical products such as diesel, heating oil and fuel oils.
Ignitable Liquid	Any liquid that will ignite by an open flame.



Individual Characteristics	Properties of evidence that can be attributed to a common source with an extremely high degree of certainty.
Latent Fingerprint	A fingerprint made by the deposit of oils and/or perspiration. It is invisible to the naked eye.
Light Petroleum Distillate (LPD) <i>(camping fuel)</i>	The light petrochemical fraction of oil that is used to produce pocket lighter fluids, brush cleaners, and white gas
Molotov Cocktail	An incendiary device consisting of an ignition source and a breakable container containing an ignitable liquid.
Narcotic	Analgesic or pain-killing substance that depresses vital body functions such as blood pressure, pulse rate, and breathing rate. The regular administration of narcotics will produce physical dependence.
Physical Evidence	Any object that can establish that a crime has been committed or can provide link between a crime and its victim or between a crime and its perpetrator.
Ridge Characteristics	Ridge endings, bifurcations, enclosures, and other ridge details that must match in two fingerprints in order for their common origin to be established, also called minutiae.
Specimen	Sample to be examined or item of interest.
Sperm	The male reproductive cell.
Standard	Material of a known origin or composition used as a reference or as a basis for comparison purposes.
Stimulant	A substance taken to increase alertness or activity.