



**Australian Government**

# **MSL975024A Locate record and collect forensic samples**

**Release 1**

## **MSL975024A Locate record and collect forensic samples**

### **Modification History**

New unit

### **Unit Descriptor**

This unit of competency covers the ability to locate, record and collect evidence or samples that will be used for forensic examination or testing. Competency includes the ability to locate, collect, package, transport and store forensic samples.

### **Application of the Unit**

This unit of competency is applicable to technical officers working in all industry sectors and government agency laboratories, for example, in food, forensic, medical and environmental laboratories. The term forensic is used to describe the collection of samples which may have legal implications, for example, samples collected to verify insurance claims or prove paternity for payment of maintenance.

All operations must comply with relevant standards, appropriate procedures and/or enterprise requirements. Although a supervisor may not always be present, the technical officer will follow standard operating procedures (SOPs) that clearly describe the scope of permitted practice, including varying enterprise/test procedures and communicating results to people outside the laboratory.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

### **Employability Skills Information**

This unit contains employability skills

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

<b>1</b>	<b>Prepare for evidence/sample collection</b>	1.1	Locate evidence/sample using observation and appropriate detection methods
		1.2	Identify appropriate sample collection methods
		1.3	Prioritise the evaluation of items of evidence to ensure maintenance of sample integrity
<b>2</b>	<b>Record locations and details of evidence/ samples</b>	2.1	Identify appropriate methods to record the evidence/samples in accordance with quality systems and within resource constraints
		2.2	Record position of located evidence using a variety of appropriate techniques
		2.3	Produce documented records of evidential material according to judicial and/or enterprise guidelines
<b>3</b>	<b>Collect evidence/ samples</b>	3.1	Collect sufficient number and quantity of evidence/samples (where possible) to allow complete examination or analysis and to represent the mass of the physical evidence
		3.2	Collect controls and reference samples where possible and appropriate
		3.3	Collect latent evidence using physical or chemical methods

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| <b>4</b> | <b>Package evidence/ samples</b>        | 4.1 | Package, transport and store evidence/samples to ensure continuity and maintain integrity of forensic samples                  |
|          |   | 4.2 | Collect and document details of evidential material in case notes and/or in the evidence register to maintain chain of custody |
| <b>5</b> | <b>Maintain a safe work environment</b> | 5.1 | Identify risks, hazards, safety equipment and control measures associated with evidence/sample collection                      |
|          |   | 5.2 | Use personal protective equipment and safety procedures specified  |
|          |   | 5.3 | Minimise the generation of wastes and environmental impacts  |
|          |   | 5.4 | Ensure the safe disposal of waste  |
|          |   | 5.5 | Clean, care for and store equipment and consumables in accordance with enterprise procedures                                   |

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills include:

- completing chain of custody forms according to judicial and enterprise requirements
- communicating with supervisors and industry professionals using current and appropriate terminology
- maintaining integrity and security of all items of evidence/samples
- storing and transporting samples according to judicial and enterprise protocols
- techniques for documenting, collecting, packaging, preserving and transporting forensic evidence/samples

### Required knowledge includes:

- legislative, regulatory, policy, procedural and quality system requirements for the location, collection, preservation, security, continuity and disposal of samples and evidence (exhibits)
- terminology and principles of locating, recording, collecting, storing and transporting samples/evidence
- potential limitations of own specialist knowledge and when to seek advice from other services
- services available to assist in the documenting, collection, preservation and continuity of forensic evidence/samples

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria required skills and knowledge range statement and the Assessment Guidelines for the Training Package.

<p><b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b></p>	<p>Assessors should ensure that candidates can:</p> <ul style="list-style-type: none"> <li>• use observations skills to locate samples/evidence</li> <li>• interpret and apply evidence/sample collection methods accurately</li> <li>• safely locate, record, collect, transport and store</li> </ul>
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	<p>samples/evidence</p> <ul style="list-style-type: none"><li>• keep accurate records</li><li>• communicate any problems to a supervisor or industry professional</li><li>• maintain security, integrity and traceability of samples/evidence, sub-samples and documentation.</li></ul>
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<p><b>Context of and specific resources for assessment</b></p>	<ul style="list-style-type: none"> <li>• This unit of competency is to be assessed in the workplace or simulated workplace environment.</li> <li>• Resources may include: <ul style="list-style-type: none"> <li>• enterprise procedures and standard methods</li> <li>• sample containers</li> <li>• containers for transporting samples.</li> </ul> </li> </ul>
<p><b>Method of assessment</b></p>	<ul style="list-style-type: none"> <li>• The following assessment methods are suggested: <ul style="list-style-type: none"> <li>• review of job sheets or journal of completed activities</li> <li>• review of workplace documentation completed by the candidate</li> <li>• observation of candidate collecting a range of samples/evidence</li> <li>• feedback from peers, supervisors and industry professionals</li> <li>• oral or written questioning of required knowledge.</li> </ul> </li> <li>• In all cases, practical assessment should be supported by questions to assess required knowledge and those aspects of competency which are difficult to assess directly.</li> <li>• Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</li> <li>• Access must be provided to appropriate learning and/or assessment support when required.</li> <li>• The language, literacy and numeracy demands of assessment should not be greater than those required to undertake the unit of competency in a work place environment.</li> </ul>

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<b>Codes of practice</b>	Where reference is made to industry codes of practice, and/or Australian/international standards, it is expected that the latest version be used
<b>Standards, codes, procedures and/or enterprise requirements</b>	<p>Standards, codes, procedures and/or enterprise requirements may include:</p> <ul style="list-style-type: none"> <li>• Australian and international standards, such as: <ul style="list-style-type: none"> <li>• AS ISO 1000-1998 The international system of units (SI) and its application</li> <li>• AS ISO 17025-2005 General requirements for the competence of testing and calibration laboratories</li> <li>• AS/NZS 2243 Set:2006 Safety in laboratories set</li> <li>• AS/NZS ISO 9000 Set:2008 Quality management systems set</li> <li>• AS 1678 Emergency procedure guide – Transport</li> <li>• AS 1940-2004 The storage and handling of flammable and combustible liquids</li> <li>• AS/NZS 4452:1997 The storage and handling of toxic substances</li> <li>• AS/NZS ISO 14000 Basic Set:2007 Environmental management standards set</li> </ul> </li> <li>• Australia Post Guides</li> <li>• Australian Dangerous Goods Code</li> <li>• Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) codes of practice</li> <li>• International Air Transport Association (IATA) regulations</li> <li>• enterprise recording and reporting procedures</li> <li>• judicial and enterprise protocols</li> <li>• material safety data sheets (MSDS)</li> <li>• national measurement regulations and guidelines</li> <li>• work health and safety (WHS) national standards and codes of practice</li> <li>• quality manuals, equipment and procedures manuals</li> </ul>
<b>Location of evidence/samples</b>	<p>Evidence/samples may be from:</p> <ul style="list-style-type: none"> <li>• industrial accidents</li> <li>• criminal investigations</li> <li>• contaminated sites</li> </ul>



	<ul style="list-style-type: none"><li>• searches and evidence collection</li><li>• fire and explosion</li><li>• disasters</li><li>• vehicle collisions</li><li>• motor vehicles</li></ul>
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<b>Detection of evidence/samples</b>	Evidence/samples detection methods may be: <ul style="list-style-type: none"> <li>• chemical</li> <li>• optical</li> <li>• physical</li> </ul>
<b>Sample collection methods</b>	Sample collection methods may include: <ul style="list-style-type: none"> <li>• hand picking (including use of forceps and gloves)</li> <li>• tape lifting</li> <li>• sweeping</li> <li>• vacuuming</li> <li>• swabbing</li> <li>• liquid and solid sampling procedures</li> </ul>
<b>Methods for recording location of evidence</b>	Methods for locating the position of located evidence may include: <ul style="list-style-type: none"> <li>• photographs (including CU where required)</li> <li>• video</li> <li>• diagrams and sketches</li> <li>• hand written notes</li> <li>• documentation</li> <li>• computer data</li> <li>• global positioning system (GPS)</li> </ul>
<b>Evidence/samples</b>	Evidence and samples may include: <ul style="list-style-type: none"> <li>• any and all objects: <ul style="list-style-type: none"> <li>• gross or microscopic</li> <li>• living or inanimate</li> <li>• solid, liquid or gas</li> <li>• relationships between all such objects</li> </ul> </li> <li>• development/enhancement/examination (e.g. use of poly light)</li> <li>• trace evidence examinations</li> <li>• biological samples, such as organs, hair, blood, semen and saliva</li> <li>• blood splatter patterns</li> <li>• clothing</li> <li>• documents</li> <li>• drugs</li> <li>• explosives</li> <li>• fibres</li> <li>• fingerprint development/enhancement/examination</li> <li>• fire debris</li> </ul>

	<ul style="list-style-type: none"><li>• firearm and ammunition examinations</li><li>• impressions</li><li>• paint</li><li>• petroleum products</li><li>• powder residues</li><li>• serial numbers</li><li>• shoeprint and tyre marks</li><li>• soils and minerals</li><li>• toolmark examination</li></ul>
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<b>Packaging samples</b>	<p>Packaging samples may take into account:</p> <ul style="list-style-type: none"> <li>• physical nature of the evidence/sample</li> <li>• packaging medium</li> <li>• tamper evident seals</li> <li>• exhibit labels</li> <li>• drying of wet exhibits</li> <li>• storage temperature</li> </ul>
<b>Maintaining integrity of samples</b>	<p>Maintaining the integrity of samples could involve:</p> <ul style="list-style-type: none"> <li>• use of appropriate sample containers (glass, plastic and opaque)</li> <li>• use of appropriate preservatives</li> <li>• wrapping container in foil to exclude light</li> <li>• temperature control, which may involve prevention of direct contact between the sample and coolant</li> <li>• use of appropriate equipment boxes (insulated, shockproof and waterproof)</li> <li>• restraint of containers to prevent movement</li> <li>• checking sample viability during transport while avoiding unnecessary handling</li> </ul>
<b>Hazards</b>	<p>Hazards may include:</p> <ul style="list-style-type: none"> <li>• access related (e.g. down cliff faces)</li> <li>• chemicals, such as acids and solvents used in drug labs</li> <li>• collapse of unstable structures, such as after arson</li> <li>• confined space entry</li> <li>• cryogenics, such as dry ice and liquid nitrogen</li> <li>• flammable liquids and gases</li> <li>• fluids under pressure, such as steam and industrial gases</li> <li>• infectious agents from corpses</li> <li>• lifting heavy and awkward items</li> <li>• microbiological organisms and agents, associated with soil, air and water</li> <li>• radiation, such as alpha, beta, gamma, X-ray and neutron</li> <li>• sharps, broken glassware and hand tools</li> <li>• sources of ignition</li> </ul>
<b>Hazard control measures</b>	<p>Hazard control measures may include:</p> <ul style="list-style-type: none"> <li>• use of equipment to address dangers at sites (e.g. propping up unstable walls or climbing gear to go</li> </ul>

	<p>down cliffs)</p> <ul style="list-style-type: none"> <li>• ensuring access to service shut-off points</li> <li>• recognising and observing hazard warnings and safety signs</li> <li>• using biohazard containers</li> <li>• labelling of samples and hazardous materials</li> <li>• handling and storage of hazardous materials and equipment in accordance with labelling, MSDS and manufacturer instructions</li> <li>• identifying and reporting operating problems or equipment malfunctions</li> <li>• cleaning equipment and work areas regularly using enterprise procedures</li> <li>• using personal protective clothing and equipment, such as gloves, safety glasses, coveralls and safety boots</li> <li>• following established manual handling procedures</li> <li>• reporting abnormal emissions, discharges and airborne contaminants, such as noise, light, solids, liquids, water/wastewater, gases, smoke, vapour, fumes, odour and particulates to appropriate personnel</li> </ul>
<p><b>WHS and environmental management requirements</b></p>	<p>WHS and environmental management requirements:</p> <ul style="list-style-type: none"> <li>• all operations must comply with enterprise WHS and environmental management requirements, which may be imposed through state/territory or federal legislation – these requirements must not be compromised at any time</li> <li>• all operations assume the potentially hazardous nature of samples and require standard precautions to be applied</li> <li>• where relevant, users should access and apply current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health</li> </ul>

## Unit Sector(s)

Not applicable.

## **Custom Content Section**

Not applicable.