



Australian Government

RIISTD301D Take environmental samples and measurements

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIISTD301A Take environmental samples and measurements
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to take environmental samples and measurements in the Resources and Infrastructure Industries.

This unit is appropriate for those working in operational or technical roles.

No licensing or certification requirements apply to this unit at the time of publication.

Elements and Performance Criteria

1. Plan and prepare for sampling and measurement	1.1 Access, interpret and apply risk management documentation and ensure the work activity is compliant 1.2 Read, clarify and confirm the purpose, priority and scope of the sample/measurement request or plan 1.3 Liaise with relevant personnel to coordinate and arrange site access and all necessary clearances/permits 1.4 Identify, address and report potential hazards and risks and environmental issues 1.5 Select and wear personal protective equipment appropriate to the task 1.6 Confirm quantity, location, frequency or time/measurement of sampling and types of samples to be collected 1.7 Select, assemble and inspect required sampling tools and equipment, and check document for faults
2. Collect environmental samples	2.1 Collect environmental samples as specified in environmental management system ensuring minimising environmental impacts and

	generation of waste 2.2 Preserve sample integrity throughout collection 2.3 Place samples in suitable containers and labels accurately 2.4 Identify and record characteristics of sampling environment, in particular any non-standard aspects
3. Take readings and measurements	3.1 Correctly set up measurement equipment 3.2 Take measurements 3.3 Take accurate readings, and record in writing data at time of reading
4. Coordinate with scientists and laboratories	4.1 Report in writing information clearly and accurately 4.2 Provide for delivery of samples within required time constraints 4.3 Ensure integrity of sample is maintained during packing and transport 4.4 Act promptly upon receiving feedback from laboratories where environmental risk is identified
5. Maintain sampling and measurement equipment	5.1 Maintain equipment in specified operating condition 5.2 Calibrate equipment 5.3 Perform minor repairs and adjustments where authorised 5.4 Program equipment software accurately where authorised
6. Report, store and archive environmental data	6.1 Prepare statistical data and regular written reports 6.2 Store data accurately in manual/computer systems/storage device 6.3 Identify and implement data backup schedule

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIISTD301A Take environmental samples and measurements

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIISTD301D Take environmental samples and measurements

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of taking environmental samples and measurements including:
 - using computers/data management devices and programmes
 - reading and interpreting databases and spreadsheets
 - solving problems associated with collecting environmental sampling and measurements
- works effectively with others to undertake and complete taking environmental samples and measurements that meet all of the required outcomes, including:
 - liaising with others to establish permits and coordinate access to sampling area
 - using a range of communications techniques and equipment to convey information to others
 - maintaining written records and reporting requirements
- demonstrates completion of taking environmental samples and measurements that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - interpreting the sample plan to identify the type of sample requested and the location, quantity and frequency of sampling
 - collecting, storing and transporting environmental samples and ensuring:
 - minimising environmental impacts

- maintaining the integrity of samples
- measuring, recording and storing accurate readings and data

Knowledge Evidence

The candidate must demonstrate knowledge of take environmental samples and measurements through:

- accessing, interpreting and applying the organisation and site requirements and procedures for:
 - worksite safety systems information
 - worksite communication, reporting and recording procedures
 - sampling
 - measurement taking
 - waste management, clean up and spillage
 - handling, transport and storage of dangerous goods
 - health, safety and environment requirements
 - methods for retaining sample/measurement integrity
 - common readings and measures expected
 - types of communication systems and equipment
 - identifying and using key terminology and concepts, such as: sample, contamination, traceability, integrity, chain of custody
 - purpose for which the samples/measurements are being collected
 - the function of key sampling/measurement equipment/materials and principles of operation
 - hazards and risks associated with sampling/measurement

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,

- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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