



Australian Government

NWPGEN007 Sample and test drinking water

Release: 1

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Modification History

Release	Comments
1	This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages. • New unit • Created drawing upon information from deleted units NWP208A and NWP218B

Application

This unit describes the skills required to collect and prepare drinking water samples and to perform basic water quality tests. This unit does not include off-site laboratory testing.

This unit applies to those working in field operations in the water industry, but might be relevant to others.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work under supervision, while performing routine tasks in a range of familiar contexts.

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

Competency Field

General

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Prepare for water quality sampling and	1.1 Receive instructions for taking samples and conducting basic water quality tests. 1.2 Confirm and record samples and tests to comply with

testing	requirements. 1.3 Select, check and prepare equipment and resources. 1.4 Select and apply relevant sample preservation methods. 1.5 Select, fit and use personal protective equipment.
2. Conduct water quality sampling and testing	2.1 Adopt hygienic work practices. 2.2 Collect samples ensuring that types, locations and times comply with requirements. 2.3 Prepare samples for off-site laboratory testing according to requirements. 2.4 Maintain integrity of samples during sampling and on-site testing. 2.5 Conduct basic on-site water quality tests. 2.6 Assess and report abnormal characteristics and apply incident management principles. 2.7 Record samples and results of on-site analysis. 2.8 Limit hazards and contamination to self, work area and environment.
3. Finalise work	3.1 Apply chain of custody principles. 3.2 Report observations or measurements requiring further action. 3.3 Dispose of samples and clean and store test equipment. 3.4 Clear and restore work area.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Range of Conditions

Types of sampling conditions includes:	• physical • microbial • chemical • radiological
On-site tests include:	• turbidity • pH • dissolved oxygen • electrical conductivity • chlorine • temperature • colour
Types of sampling areas include:	• surface • ground • drinking • seawater

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPGEN007 Sample and test drinking water

Modification History

Release	Comments
1	These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. To be deemed competent the candidate must be assessed in a minimum of three of the types of tests, one of the types of conditions and one of the areas of sampling listed in the Range of Conditions. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- calibrating testing equipment
- interpreting sampling and testing requirements
- preparing, checking and using equipment
- assessing risks
- preparing, collecting, labelling and preserving water samples
- disposing of waste and spent samples
- planning and preparing for water sampling tasks
- recording all required information

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- chain of custody
- range and purpose of basic water quality testing and sampling
- relevant policies and procedures
- blind sampling
- abnormal characteristics of water samples
- atypical test result data
- relevant work-related calculations
- maintenance and storage of reagents
- requirements for maintaining sample integrity
- relevant legislative and organisational requirements

- water sample preparation
- work planning processes
- effects of weather and conditions on work
- hazards associated with collection of water samples
- incident management principles

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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