



Australian Government

MSS024017 Collect spatial and discrete environmental data

Release: 1

MSS024017 Collect spatial and discrete environmental data

Modification History

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

Application

This unit describes the skills and knowledge to obtain and store spatial and discrete environmental data using handheld global positioning system (GPS) equipment.

This unit applies to environmental technicians working in a range of industry sectors, including environmental monitoring, sampling and field testing; geotechnical services; natural resource management; occupational hygiene monitoring; groundwater and clean water; water treatment, storm and wastewater management; site remediation and rehabilitation.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil

Competency Field

Monitoring

Unit Sector

Environmental

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Prepare for data collection	1.1	Read and interpret legislative and regulatory, workplace requirements and background information for site or project
		1.2	Locate, read and interpret specifications for spatial and environmental data collection
		1.3	Write a data collection plan in accordance with specifications
		1.4	Establish codes for environmental attributes

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
		1.5	Assemble equipment and check that it is fit for purpose
		1.6	Confirm plan with supervisor
2	Safely collect GPS and environmental data	2.1	Set up environmental measuring instruments on site and perform pre-use or calibration checks
		2.2	Set up GPS equipment with correct datum and projection settings
		2.3	Operate instruments and equipment in accordance with manufacturer specifications and workplace procedures
		2.4	Determine conditions for obtaining optimum GPS positions
		2.5	Collect point positional data in accordance with data collection plan
		2.6	Attribute environmental data for each location
		2.7	Ground truth GPS data using maps, aerial photos or satellite imagery
		2.8	Verify environmental data, identify atypical results and review procedures and troubleshoot equipment
3	Report data and finalise documentation	3.1	Use GPS software to download and process GPS and environmental data and extract required information
		3.2	Use specified quality tests and workplace procedures to check acceptability of environmental data
		3.3	Complete all required documentation
		3.4	Maintain the security and confidentiality of data and documentation in accordance with workplace requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSS024005 Collect spatial and discrete environmental data.

Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>

Assessment Requirements for MSS024017 Collect spatial and discrete environmental data

Modification History

Release 1. Updated unit code. Changes to performance criteria. Range of conditions removed. Assessment requirements amended. Equivalent outcome.

Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- collected spatial and discrete environmental data that meets specifications on at least 2 occasions, including:
 - completed required documentation including at least 1 of the following:
 - map of GPS data locations
 - sampling, monitoring or in-field test data and results
 - records of vehicle or equipment use
 - records of time spent and approved expenditure
 - emails and correspondence
 - records of site consultations.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- environmental terms, concepts and principles relevant to data collection
- environmental data verification including comparison with expected or reference values, conducting repeat tests, and using duplicate samples or locations
- legislative requirements, standard methods and workplace procedures governing data collection, processing and reporting
- sources of background information
- uncertainty, accuracy and precision of measurements and data quality requirements
- data formats
- methods for data processing, manipulation and management
- hazards, health and safety and site environmental management requirements for work role.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of facilities, equipment and resources, including:

- access to sites and vehicle transport
- sampling or monitoring equipment and instruments, GPS receivers and related GPS software, camera; consumables; calculator, computer and relevant software or laboratory information system
- documentation, including site information and history, maps, aerial photos; site environmental management plans, codes of practice and field protocols; equipment manuals, workplace procedures, specifications and test or survey methods.

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

Links

The MSS Sustainability Companion Volume implementation Guides are available from VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5b04f318-804f-4dc0-9463-c3fb9a3fe998>