



Australian Government

Assessment Requirements for MSS025029 Perform sampling and testing for site contamination

Release: 1

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Modification History

Release 1. Unit code changed. Unit title changed. Application changed. Performance Criteria changed. Foundation Skills populated. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to MSS025014 Perform sampling and testing of contaminated sites.

Performance Evidence

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

- identify and document key features and potential contamination hazards of at least one site
- collect, preserve and label a set of representative samples for at least one site in accordance with sampling plan
- prepare (sub)samples and conduct at least one test and analysis, using specified test methods, for each of the following:
 - air
 - water
 - soil
- apply cleaning and decontamination procedures for each test
- interpret trends in data and/or results and report atypical results on at least 3 occasions.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- scientific terminology covering the sampling and testing of air, water and soil at potentially contaminated sites as relevant to job role
- overview of legislation, regulations, standards and codes of practice related to contaminated sites, and threshold levels or environmental quality concentration limits for contaminants
- common site hazard and risks, risk assessment techniques and use of risk cards
- properties and health risks associated with groups of contaminants including at least 2 examples from each of the following groups:
 - particulates
 - chemicals
 - materials and substances
 - gases/vapours
- sampling plans for contaminated sites, including concepts of preliminary sampling, non-targeted/grid sampling, and targeted/judgemental sampling

- types of sampling strategies for gas, water and soil
- functions and operating principles of, and sampling equipment related to, test equipment and/or instruments including at least 2 from each of the following:
 - air testing
 - water testing
 - soil testing
- screening of gas/vapours, soil and water samples using:
 - colour and texture
 - bioluminescence/toxicity test kits
 - colorimetric methods and dye shake tests
 - pH, electrical conductivity, redox potential, temperature, dissolved oxygen and ammonia concentration
 - photo ionisation detectors (PID)
 - flame ionisation detectors (FID)
 - gas detectors
 - portable infrared analysers for methane and carbon monoxide (CO)
 - portable X-ray fluorescence spectrum analyses
 - field gas chromatography
 - measurement of radiation
- common procedure/equipment problems leading to atypical data/results
- traceability and/or chain of custody of samples and management of large volumes of data
- calculation of measurement uncertainty as relevant to tests being performed
- use of replicates, field and trip (transport) blanks, rinsate blanks and background samples
- data processing, recording and reporting procedures
- hazards, health, safety and environmental requirements relevant to site activities undertaken; use of safe work methods, safety equipment and personal protective equipment (PPE).
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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 suitable facilities, equipment and resources, including:
 - sampling plan
 - test methods and/or procedures
 - instrument calibration procedures, where relevant
- modelling of industry operating conditions.

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

Links

Companion Volume Implementation Guides are found in VETNet -

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