



Australian Government

Assessment Requirements for MSS025019

Report environmental data

Release: 1

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Modification History

Release 1. Updated unit code. Changes to elements and 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:

- analysed environmental data and prepared and communicated at least 1 report, including:
 - storing, retrieving and manipulating environmental data in accordance with workplace procedures and traceability requirements
 - performing calculations with or without a calculator or computer software and presenting accurate results in the required format and timeframe
 - calculating at least 4 scientific quantities relevant to their work
 - using appropriate graphical or statistical methods to analyse given data sets
 - preparing frequency distributions for given data, and calculating and interpreting measures of central tendency and dispersion
 - analysing data to determine relationships between variables and samples.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- characteristics of a valid measurement and valid sample
- sources and estimates of uncertainty in measurements
- role of statistics in the interpretation and analysis of environmental data
- environmental data terminology, including variables, dispersion, central tendency, normal distribution, confidence level and replication, inference, causation, association, correlation and hypothesis
- calculations involving evaluation of formulae containing algebraic, power, exponential and logarithmic functions, measures of central tendency, sum of squares, variance and standard deviation
- preparation and interpretation on linear and non-linear graphs, and frequency distribution plots
- determination of regression line equations and correlation coefficients
- statistical analysis and significance tests, including t-test, analysis of variance (ANOVA), chi squared test and data acceptability tests, including Q, T and Youden
- procedures for ensuring data traceability
- procedures for verifying data and rectifying mistakes

- procedures for maintaining and filing records and maintaining security of data.

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:
 - calculator, computer and relevant software or laboratory information system
 - environmental data sets and records
 - documentation, including user manuals; workplace procedures for recording, processing, storing and reporting environmental data; 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>