

Australian Government

## Assessment Requirements for CPPSIS6034 Conduct mining geology operations

Release: 1

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#### **Modification History**

Release 1.

Replaces superseded equivalent CPPSIS6034A Conduct mining geology operations.

This version first released with CPP Property Services Training Package Version 3.

#### **Performance Evidence**

A person demonstrating competency in this unit must satisfy the requirements of the elements, performance criteria, foundation skills and range of conditions of this unit. The person must also conduct mining geology operations for two different projects.

While conducting the above mining geology operations, the person must:

- assess the environment to recognise geological aspects of possible ore deposits
- analyse mining geology to report on:
  - geological aspects of possible ore deposits
  - rock types and structures
  - · levels of rock stability and ground support
  - ore and minerals fundamental to mining operations
  - methods for obtaining ore and mineral samples
- communicate clearly with clients and others to clarify and report project information
- comply with organisational policies and procedures, standards, mining regulations and legislation when planning and implementing project activities
- evaluate mining geology projects for compliance with specifications and identify non-conformances
- measure geological survey components using two of the following pieces of equipment:
  - current meter
  - echo sounder
  - global navigation satellite system (GNSS)
  - level
  - remote sensing
  - tape
  - total station
- perform calculations to measure, reduce and validate spatial data captured from surveying tasks
- plan and implement project management mechanisms to ensure the project is completed within required timeframes and complies with specifications and standards
- plan and implement risk and contingency management strategies

- use computers and relevant software applications to manipulate spatial data and develop reports
- work safely, using personal protective equipment (PPE) when performing surveying tasks.

### **Knowledge Evidence**

A person demonstrating competency in this unit must demonstrate knowledge of:

- accuracy and precision requirements for mining geology surveying operations
- basic characteristics of common ore and mineral deposits
- classification of economic mineral deposits and the process involved in presenting a schematic model
- data capture and set-out techniques
- data reduction and manipulation techniques
- methods for assessing the environment to recognise ore deposits
- methods for obtaining ore and mineral samples
- mineral exploration methods, including geophysical, geochemical and geological techniques
- mining methods for metalliferous and coal mines
- organisational policies and procedures, standards, regulations and legislation relating to:
  - client and stakeholder communication
  - mining industry and mine design, including:
  - mine access
  - layout
  - service provision, such as water, air, power, lighting and dewatering
  - mines safety
  - records and reporting
  - risk and contingency management
  - using the equipment specified in the performance evidence
- phases and stages of exploration procedures and possible methods of exploration relevant to each
- physical and chemical characteristics of rock types and structures fundamental to mining operations
- project management techniques for scheduling, measuring and monitoring work progress and planning for risks and contingencies
- techniques for providing rock stability and ground support relating to underground mining.

#### **Assessment Conditions**

The following must be present and available to learners during assessment activities:

- equipment:
  - as specified in the performance evidence, including PPE

- specifications:
  - mining and surveying specifications, including relevant plans and drawings
  - organisational policies, procedures and documentation relating to work health and safety
  - relevant legislation and regulations relating to mines safety
  - relationships with team members and supervisor:
  - lead role in a team.

Timeframe:

• as specified by project requirements.

#### Assessor requirements

As a minimum, assessors must satisfy the assessor requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

#### Links

Companion Volume implementation guides are found in VETNet https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b