



Australian Government

Assessment Requirements for CPPSIS6021 Conduct open pit mine surveys

Release: 1

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Modification History

Release 1.

Replaces superseded equivalent CPPSIS6021A Conduct open mine pit surveying.

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 open pit mine surveys for two different projects.

While conducting the above open pit mine surveys, the person must:

- interpret relevant plans and documents to plan surveying project processes and activities
- communicate clearly with clients and stakeholders to clarify and report project information
- comply with organisational policies and procedures, standards, regulations and legislation relating to surface mining when planning for:
 - blasting
 - drainage and dewatering
 - dumps and stockpiles
 - equipment use
 - records and reporting
 - standards and quality
 - surveying tasks
 - work health and safety
- create mine drawings and capture and reduce data to calculate mine volumes
- perform calculations to measure, reduce and validate spatial data captured from open pit mine surveying
- measure survey components using two of the following pieces of surveying equipment:
 - global navigation satellite system (GNSS)
 - level
 - remote sensing
 - tape
 - total station
- plan and implement project management mechanisms to ensure open pit mine surveying operations are completed within required timeframes and comply with project specifications
- prepare and document project plans that detail:

- required surveying equipment
- surveying objectives and deliverables
- strategies for risk and contingency management
- work processes and timeframes
- 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 surveying data
- basic characteristics of common ore deposits
- data capture and set-out techniques
- data reduction and manipulation techniques
- explosives, blasting and blasting practices applicable to mining operations
- mineral exploration methods, including geophysical, geochemical and geological techniques
- mining methods, including:
 - developing roads and ramps
 - drilling
 - removing interburden
 - pre-stripping
 - stockpiles, dumps and safety berms
 - tailings dams
- organisational policies and procedures relating to:
 - client and stakeholder communication
 - records and reporting
 - using the surveying equipment specified in the performance evidence
 - work health and safety
- project management techniques for scheduling, measuring and monitoring work progress
- specialised surveying equipment requirements and accessibility in relation to open pit mining
- techniques for wall monitoring to derive a suitable pit wall slope, including:
 - batter stakes
 - measuring and recording ground cracks
 - required prism locations
 - toe and batter checks
- terminology and nomenclature applicable to surface 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:
 - organisational policies, procedures and documentation relating to work health and safety
 - relevant mines safety legislation and regulations for the jurisdiction
 - surveying specifications, including relevant plans and drawings
- relationships with team members and supervisor:
 - working 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>