



Australian Government

CPPSSI6041 Compile mine survey plans

Release: 1

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Modification History

Release 1 This version first released with CPP Property Services Training Package Release 12.0.

This unit supersedes and is equivalent to CPPSIS6041 Compile mine survey plans.

Application

This unit specifies the skills and knowledge required to compile a mine survey plan using computer-aided design (CAD) programs to produce mine drawings. It includes organising work processes; checking and validating essential surveying information; and creating a survey database, file structures and conventions, and metadata. The unit also includes the use of specialist surveying tools and techniques to measure, reduce and validate spatial data and create mine plans, cross-sections and plots.

This unit is suitable for surveyors who use broad theoretical and technical knowledge to analyse information as well as interpret and provide solutions to unpredictable and sometimes complex surveying/spatial information problems. The unit supports those who work in a technical management role in a mining environment.

All work must be carried out to comply with workplace procedures, in accordance with relevant state/territory regulations that govern surveying work, as well as work health and safety (WHS) legislation and regulations that apply to the workplace.

Cadastral surveying must be undertaken under the supervision of a registered surveyor. Users must check with the relevant regulatory state/territory authority before delivery.

Licensing, legislative or certification requirements apply to this unit in some states/territories where mining surveying must be undertaken under the supervision of a registered surveyor. Relevant state and territory regulatory authorities should be consulted to confirm those requirements.

Pre-requisite Unit

Nil.

Unit Sector

Surveying and Spatial Information Services

Elements and Performance Criteria

Elements describe the Performance criteria describe what needs to be done to

essential outcomes.	demonstrate achievement of the element.
1 Organise work processes.	1.1 Define and document project deliverables, activities and timeframes. 1.2 Access and interpret design information to identify spatial data requirements and components to be measured and monitored. 1.3 Check essential surveying information for currency and validity. 1.4 Create survey database, file structures and conventions, and metadata according to project specifications. 1.5 Schedule, measure, record and report progress of activities in relation to agreed timeframes and plans. 1.6 Comply with legislative and organisational requirements in compiling mine survey plans. 1.7 Implement and maintain agreed communication processes between client and other appropriate persons.
2 Standardise mine survey plan requirements.	2.1 Identify requirements for lodging plan according to organisational requirements. 2.2 Research and summarise mine plan drawing and plotting requirements to meet project specifications. 2.3 Manage contingencies and constraints and resolve problems to ensure plans meet specifications.
3 Produce mine survey plans.	3.1 Identify and comply with plan lodgement requirements, standard drawing requirements and plotting specifications. 3.2 Check mine grid coordinate systems and requirements for data processing for currency and validity. 3.3 Create database, file structures and conventions, and metadata as the basis for design work. 3.4 Reduce measured spatial data to project reference system.

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| | 3.5 | Validate and record measurements according to project specifications. |
| | 3.6 | Check mine plans for compliance with project specifications and organisational requirements. |
| 4 Finalise mine survey plans. | 4.1 | Assess plan for compliance with relevant standards and task requirements. |
| | 4.2 | Finalise mine survey plans and notify relevant persons of results according to organisational requirements. |
| | 4.3 | Complete documentation and archive spatial data according to legislative and organisational requirements for completing records, reporting and mine drawings, and protocols for saving and formatting drawings. |

Foundation Skills

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

Unit Mapping Information

Supersedes and is equivalent to CPPSIS6041 Compile mine survey plans.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPSSI6041 Compile mine survey plans

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Performance Evidence

To demonstrate competency a candidate must meet the elements and performance criteria of this unit by using computer-aided design (CAD) software to develop two mine surveys plan that meet technical project specifications.

Each mine survey plan must incorporate:

- grid convergence
- long and cross-section plot requirements
- map legends
- plot symbols
- sheet surround.

Knowledge Evidence

To be competent in this unit a candidate must demonstrate knowledge of:

- types of mine plans:
 - accident plans
 - emergency plans
 - open cut mine plans
 - surface infrastructure plans
 - underground level plans
 - ventilation plans
- Australian drawing standards, data formats and precision and accuracy requirements for preparing mine drawings using CAD
- height, depth, dimension and position and actual operational activity and virtual representation
- graphical information in cross-sections and plans
- CAD principles, capabilities and uses in relation to mine design
- metadata:

- availability
- conditions of use
- coordinate system
- currency
- custodian
- data accuracy
- data description
- date of acquisition
- licence
- quality
- source
- spatial data acquisition methodologies
- version control
- data reduction and manipulation techniques
- standard engineering and mining plan design and presentation conventions
- industry-accepted standards for mine survey plans
- legislative and organisational requirements for mine survey plans
- methods for validating measurements to identify errors
- key features of mine grid coordinate systems.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting where these skills and knowledge would be performed.

Candidates must have access to:

- computer and CAD software.

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