



Australian Government

**RIIMEX603D Establish and maintain
underground mining ground control and
stable mining systems**

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIIMEX603A Establish and maintain underground mining ground control and stable mining systems
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to establish and maintain underground mining ground control and stable mining systems in Metalliferous mining.

This unit is appropriate for those working in management or technical specialist roles.

No licensing, legislation or certification requirements apply to this unit at the time of publication.

Unit Sector

Metalliferous mining

Elements and Performance Criteria

1. Plan and prepare to establish and maintain underground mining ground control and stable mining systems	<ul style="list-style-type: none">1.1 Access, interpret and apply underground mining ground control and stable mining systems documentation and ensure the work activity is compliant1.2 Obtain, read, interpret, clarify and confirm work requirements1.3 Identify and address potential risks, hazards and environmental issues and implement control measures1.4 Select and wear personal protective equipment appropriate for work activities1.5 Identify, collect, access and interpret mine survey data1.6 Identify and record the necessary resources required to create and maintain a stable mining structure
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	<p>1.7 Identify, access and interpret mine survey data and historical information</p> <p>1.8 Identify, assess and record all possible mining structure failure modes relevant to the mine site</p> <p>1.9 Establish the criteria for establishing the quantitative stability of mining structures</p>
<p>2. Identify and evaluate geological and geotechnical information</p>	<p>2.1 Access, identify, interpret and evaluate exploration techniques</p> <p>2.2 Access, identify, interpret and evaluate geological structures</p> <p>2.3 Access, identify, interpret and evaluate hydrogeological features</p> <p>2.4 Identify, interpret and evaluate hanging wall, foot wall, ore body characteristics and physical properties</p> <p>2.5 Identify, interpret and evaluate stress regimes</p>
<p>3. Identify and evaluate mining engineering principles and practices</p>	<p>3.1 Investigate, identify, interpret and evaluate types of mining system and methods</p> <p>3.2 Identify and assess layouts for stable mining structures from engineering analysis</p> <p>3.3 Identify, interpret and evaluate mining constraints impacting on the development of a stable mining structure</p> <p>3.4 Identify, interpret and evaluate equipment requirements</p>
<p>4. Identify and evaluate control options</p>	<p>4.1 Investigate, identify, interpret and evaluate ground support systems</p> <p>4.2 Identify, interpret and evaluate ground support installation, monitoring and assessment systems</p> <p>4.3 Identify, interpret and evaluate causes and impacts of failure mechanisms</p> <p>4.4 Identify, interpret and evaluate natural and induced stress control methods</p>
<p>5. Establish ground control and stable mining systems</p>	<p>5.1 Design and establish exploration programs identifying geological features and characteristics impacting on mining operations</p> <p>5.2 Investigate and design safe access and egress systems Design and establish mining systems</p> <p>5.3 Design and establish sequences for mining operations</p> <p>5.4 Design and establish system specifications and documentation</p> <p>5.5 Establish a program, including systems and procedures to satisfy identified training requirements</p>

	<p>5.6 Establish emergency response and evacuation plans and procedures</p> <p>5.7 Identify, confirm, establish and implement safe operating procedures</p>
<p>6. Audit and review the effectiveness of ground control and stable mining systems</p>	<p>6.1 Audit stable structure standards</p> <p>6.2 Audit mine survey data</p> <p>6.3 Audit monitoring systems</p> <p>6.4 Audit recording systems</p> <p>6.5 Audit system maintenance program and procedures</p> <p>6.6 Audit emergency procedures and plans</p> <p>6.7 Audit the stable mining structure training program for currency and relevance</p> <p>6.8 Audit emergency response and evacuation plans and procedures</p> <p>6.9 Identify and assess future site mining requirements and standards and incorporate into the planning procedures</p> <p>6.10 Establish procedures for response to non-compliance or other discrepancies/deficiencies revealed by audit</p>

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIMEX603A Establish and maintain underground mining ground control and stable mining systems

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>