

Unit Ref	SUM03
Title:	Control Major Mining Hazards
Level:	4
Credit value:	13
Guided Learning Hours	105
Learning outcomes <i>The learner will:</i>	Assessment criteria <i>The learner can:</i>
1. Be able to control major mining hazards.	1.1 Confirm that equipment is within any required test/calibration date 1.2 Demonstrate the pre-use examinations and checks on relevant items of environmental monitoring equipment 1.3 Demonstrate how to operate relevant items of environmental monitoring equipment 1.4 Demonstrate reporting procedure to be followed should excessive levels of a substance harmful to health be detected 1.5 Demonstrate procedure to be followed should gases exceed statutory/organisational levels 1.6 Plan the implementation of measures that can assist in minimising major mine hazard(s) to acceptable levels 1.7 Support staff in implementation of measures that can assist in minimising major mine hazard(s) to acceptable levels 1.8 Show how information can be obtained for specific hazards 1.9 Show where and when environmental reading should be taken 1.10 Ensure that staff use monitoring/control equipment in accordance with manufacturers/organisational recommendations 1.11 Ensure staff maintain monitoring/control equipment in accordance with manufacturers/organisational recommendations 1.12 Confirm that staff use personal protective equipment in line with legislative and organisational requirements 1.13 Recognise that monitoring/control equipment have developed a fault 1.14 Show action to be taken on discovering that monitoring/control equipment have developed a fault
2. Understand how to control major mining hazards.	2.1 Describe the composition of mine air 2.2 Explain statutory and legislative requirements for mine air to be deemed adequate 2.3 Define the term "barometric pressure 2.4 Explain the relevance of barometric pressure to the mine environment 2.5 Describe what effect temperature variations will have on the mine environment 2.6 Explain the purpose of organisational Safety Performance Indicators in relation to major mine hazards 2.7 Outline key aspects of Safety Performance Indicators relevant to the workplace 2.8 Explain organisational requirements relating to environmental monitoring/tests required to be carried out in a mine 2.9 List the types of environmental monitoring/testing that need to be carried out in the mine environment 2.10 List the range of equipment available to carry out environmental monitoring/tests 2.11 State where and when environmental monitoring/testing needs to be carried out 2.12 Explain the advantages/limitations of equipment available for carrying out environmental monitoring/tests 2.13 State where information relating to use of environmental monitoring equipment can be obtained 2.14 Name the units of measurement displayed on environmental monitoring equipment explaining the meaning and significance of each

	<p>2.15 Explain the major mining hazards relevant to the mine including:-</p> <ul style="list-style-type: none"> • How they occur • Where they may be found • Hazards associated with them • Physiological effects on mine and individual • How they are monitored/controlled • Exposure limits • Purpose of protective devices • Action should the hazards exceed statutory/organisational levels <p>2.16 Define the terms:-</p> <ul style="list-style-type: none"> • Workplace exposure limit • Long term exposure limit • Short term exposure limit <p>2.17 Explain the relevance of workplace exposure limits to environmental monitoring</p> <p>2.18 Explain the relevance of trends with reference to environmental monitoring</p> <p>2.19 Describe common faults that may arise when using environmental monitoring/control equipment</p> <p>2.20 State the procedure to be followed if a fault on monitoring/control equipment cannot readily be rectified</p> <p>2.21 State what organisational records/forms need to be completed and their retention periods</p> <p>2.22 Explain how to interpret and record environmental monitoring readings</p> <p>2.23 Explain the relevance of statutory/company pre-set action levels when interpreting environmental readings</p> <p>2.24 Explain what information may need to be provided to staff who may be affected by measurements outside normal parameters to enable them to travel to and work safely in a mine</p> <p>2.25 List indigenous/imported substances harmful to health that may be encountered in the mine</p> <p>2.26 State what gases may be imported into a mine that may be hazardous to personnel</p> <p>2.27 Explain how to deal with personnel exposed to gases/dust/hazardous substances above prescribed limits</p> <p>2.28 Explain the methods to be used to confirm that roadway profiles are within acceptable parameters</p> <p>2.29 Outline the procedures to be followed should any roadway profiles be outside acceptable parameters</p> <p>2.30 Describe the advantages/limitations of communication methods used to notify persons of excessive levels</p> <p>2.31 Explain the procedures to protect staff who may be lone workers when carrying out environmental monitoring operations</p> <p>2.32 Explain how to establish and maintain effective teamwork when groups of people are involved in environmental monitoring operations</p> <p>2.33 Explain where information can be obtained on specific environmental mining hazards</p> <p>2.34 List the specialist groups who may provide information on specific hazards under routine and emergency conditions</p> <p>2.35 Explain how staff competences to use monitoring/control equipment can be verified</p> <p>2.37 Outline your role and responsibility relevant to controlling major mine hazards and how it is influenced by the following,</p> <ul style="list-style-type: none"> • The Safety Management System (SMS) • The Competence Management System (CMS) • Current legislation <p>2.36 Explain how the PPE provided affords protection to the wearer</p>
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	<p>2.37 Outline checks that should be carried out on PPE</p> <p>2.38 Explain the advantages and limitations of ventilation equipment that may be used to provide additional ventilation</p> <p>2.39 Explain the circumstances which may require the provision of additional ventilation</p> <p>2.40 Outline the purpose of a method statement in the provision of additional ventilation and your role in relation to this</p> <p>2.41 Explain how the provision of additional ventilation is coordinated and may be delivered to point of need</p>
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Additional information about the unit	
Unit purpose and aim	The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence of controlling major mining hazards within the relevant sector of industry.
Unit expiry date	?
Details of relationship between the unit and relevant NOS or other professional standards	This unit covers NOS unit SUM03 – Control Major Mining Hazards in full.
Assessment requirements or guidance specified by sector or regulatory body	Must be assessed in accordance with the MP Futures SSO Assessment Strategy and Awarding Organisation qualification implementation guidance
Support for the unit from SSC or other body(If required)	Industry Support
Location of the unit within the subject/sector classification system	4.2
Name of the organisation submitting the unit	Mineral Products Qualifications Council
Availability for use	Restricted
Unit available from	?