

MINE PRODUCTION

MMP01 WORK AREA DEVELOPMENT

Achievement of production targets and other task goals safely and effectively is a major objective for all of us.

To achieve these objectives we must make use of several management skills and have a sound knowledge of the materials and equipment with which we will be required to work.

This unit covers the application of the use of planning, work coordination and communication skills to the development of work areas in an open cut mining operation.

The definition of work areas is not limited to only mining activities, but this also includes construction activities involving earthworks.

The physical characteristics of materials and how they influence the application of equipment and manpower during the process are also covered in this unit.

Each mining operation has implemented individual systems for planning, execution and recording of activities. The key objective of this unit is to create awareness of these systems, together with the application of management skills and knowledge of equipment capabilities and material characteristics, leading to competency in work site preparation.

Whilst the material contained in this unit is sufficient to enable you to develop and demonstrate competency in working area development, you may wish to read more on the subject.

MMP02 OVERBURDEN DRILLING

This unit will provide you with the skills necessary to manage the preparation of areas of overburden for blasting in accordance with company standards.

The efficient drilling of overburden relies strongly on the development of an appropriate drill pattern design, choice of the appropriate drilling equipment and proper utilisation of that equipment. Competencies in each of these areas will be developed as you work through the unit.

While the material contained in this unit is sufficient for you to develop competency in Overburden Drilling in your job, you may wish to read more on the subject.

Some suggested texts include:

Smith Mining

General Catalogue

Oklahoma, Smith International, 1991/1992

Baker Hughes

Mining Tools

Baker Mining Tools Inc., USA, 1989

MMP03 PREPARATION FOR BLASTING

Overburden removal contributes significantly to the cost of mining. Effective utilisation of overburden removal equipment is assisted greatly by efficient fragmentation of the material during blasting operations.

In this unit you will be given instruction on the selection of the appropriate explosives and initiating systems. Instruction is also given on the proper placement of the explosives and blasting accessories to ensure the desired degree of fragmentation and blast profile results.

Competencies in each of these areas will be developed as you work through the unit.

MMP04 OVERBURDEN BLASTING

This unit will provide you with the skills necessary to successfully complete the blasting of overburden. Instruction on completion of the tie- in process and cross checking of the tie in is provided. Firing of the shot in accordance with the approved site blasting procedures and the procedures for dealing with misfires are also included in the instructional material in this unit.

Management of a shot requires the recording of details of the blast. Instruction on the site procedures for the recording of the appropriate information on each blast completes this unit.

Competencies in each of these areas will be developed as you work through the unit.

MMP05 OVERBURDEN REMOVAL

A clear understanding of the process and procedures for efficient overburden removal contributes significantly to the control of production costs. In this unit you will be provided with instruction on these procedures.

In addition, instruction will be provided in the management of the work area, haul roads and access roads in a condition that meets company needs.

Quality control processes are also introduced, with the aim of minimising contamination of ore bearing material and the loss of ore in overburden removal.

Rehabilitation of mined areas forms a major part of the mining process. Procedures to facilitate this rehabilitation process are also discussed in this unit.

Competencies in each of these areas will be developed as you work through the unit.

MMP06 OPEN CUT MINING PREPARATION

The removal of uncovered ore bearing material from the pit requires an in-depth understanding of the approved processes and procedures which have been established on site to ensure the safe and effective mining of ore.

Included in these procedures are the requirements for a sound knowledge of the appropriate equipment and its production capabilities, management of quality, handling of unwanted materials and the correct disposal of pit water.

The overriding objective must be to maximise yield to an approved quality standard.

MMP07 OPEN CUT MINING

Extraction of material by open cut mining methods requires the implementation of approved processes and procedures that have been established on site to provide for safe and efficient mining.

Competent production staff must also possess an in-depth knowledge of equipment selection and management processes, environmental protection measures, quality control, and bench, haul road and stockpile maintenance.

This unit addresses all of these issues with the overriding objective being to maximise yield to an approved quality standard

