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Australian Standard®

Mine plans—Preparation and symbols

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Australasian Institute of Mining and Metallurgy

Australian Chamber of Commerce and Industry

Australian Coal Association

Australian Coal Industry Research Laboratories

Australian Coal Preparation Society

Australian Institute of Energy

Australian Mining Industry Council

Bureau of Steel Manufacturers of Australia

CSIRO, Division of Coal and Energy Technology

Department of Minerals and Energy, Queensland

Electricity Supply Association of Australia

Institution of Engineers, Australia

Queensland Coal Board

Royal Australian Chemical Institute

Standing Committee on Coalfield Geology of New South Wales

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PREFACE

This Standard was prepared by the Standards Australia Subcommittee on Coal Mining and Geology under the direction of the Committee on Coal and Coke.

Input was received from the following organizations:

BHP Collieries Division, N.S.W.
BHP Australia Coal
Department of Minerals and Energy, N.S.W.
Department of Manufacturing and Industry Development, Vic.
Department of Minerals and Energy, W.A.
Department of Mines and Energy, S.A.
FAI Mining, N.S.W.
WMC Olympic Dam Operations
Western Collieries, W.A.
Griffin Coal, W.A.
KCC West Cliff Colliery, N.S.W.
Institution of Engineering and Mining Surveyors, Australia

The objective of this Standard is to provide those responsible for drafting symbols for mine plans with a common set of rules and principles.

The term ‘normative’ has been used in this Standard to define the application of the Appendices to which it applies. A ‘normative’ appendix is an integral part of a Standard.

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FOREWORD

In modern mining, there is a general interchange of professional staff and workpeople among surface and underground mines extracting coal, industrial minerals and metalliferous deposits. It is therefore important to prepare mine plans with standard symbols and with standard scales, so that plans are easier to read and the chances of reading errors are minimized. This is especially important with plans used in emergencies.

Mine plans have to be updated regularly (usually quarterly). Many plans are already digitized for drafting and printing by computerized methods and it is foreseen that the standard symbols will be introduced as software is improved. Much of the mining software is already common, although not all symbols are in use universally. For part of the process, the Australian Surveying and Land Information Group, and the Australian Geological Survey Organization (formerly the Bureau of Mineral Resources, Geology and Geophysics), already have their symbols available on software.

Legislation in many States prescribes a basic core of symbols, and individual mines have added their own symbols to plans. A general review of existing symbols has been made and those most commonly in use have been chosen. It is recognized that some mines may have a need for extra symbols but those should follow a common pattern and should also be easy to understand. Mine plans are needed for posterity as well as for the current user, and in most cases have to conform to legislation designed to protect the public as well as employees and management in the mining industry.

The symbols shown in this Standard have been chosen for easy drafting by computer. Letter codes are preferred for descriptive symbols for that reason and because they can be readily understood. Colour is avoided where possible so that portions of plans can be easily reproduced in black and white.

STANDARDS AUSTRALIA

Australian Standard

Mine plans—Preparation and symbols

S E C T I O N 1 S C O P E A N D G E N E R A L

1.1 SCOPE Without prejudice to any requirements of statutory regulations, this Standard sets out recommendations for the preparation of mine plans and the symbols to be used on all underground and surface mine plans. It does not deal with drafting practices, for which reference should be made to AS 1100.101 and AS 1100.401.

1.2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1100	Technical drawing
1100.101	Part 101: General principles
1100.401	Part 401: Engineering survey and engineering survey design drawing
1345c	Wallchart—Pipeline identification
2418	Coal and coke—Glossary of terms
2916	Symbols for graphical representation of coal seams and associated strata

Symbols Used on Geological Maps, Australian Geological Survey Organization (AGSO), Canberra.

Specifications for Topographic Maps (NATMAP), Australian Surveying and Land Information Group (AUSLIG), Canberra.

1.3 DEFINITIONS Plans are prepared by a mining company for different purposes, and their end use may dictate the choice of symbol to be used. For the purposes of this Standard, the definitions given in AS 2418 and those below will apply, and the word ‘plan’ should be taken in a generic sense to include cross-sections and isometric drawings where appropriate.

1.3.1 Electrical plans—plans that show the main electrical cables and fixed electrical equipment, and may need to comply with statutory requirements. They are associated with working plans.

1.3.2 Firefighting and rescue plans—plans that provide the information required to meet emergency situations. Such plans may be statutorily prescribed, and State Acts or Regulations give details of the minimum information to be provided, which usually includes firefighting equipment, the principal ventilation devices and the direction of airflow.

1.3.3 Geological plan—a plan that is primarily concerned with the geology of the district in which the mine is situated. The mine workings may be shown only in outline on the plan, along with the location of shafts, adits and boreholes.

1.3.4 Other plans—plans that may include such items as water and drainage plans, progress plans layout plans and accident plans. In general, they are associated with the working plans and follow the same conventions.