

# **CODE FOR REPORTING OF MINERAL EXPLORATION RESULTS, MINERAL RESOURCES AND MINERAL RESERVES (THE REPORTING CODE)**

## **AN INTRODUCTION**

The preparation of this Reporting Code has been one element of a seven-year international initiative that brings the reporting standards for Mineral Reserves and Mineral Resources being used by the participating institutions, that is, the Institute of Mining and Metallurgy (IMM), the European Federation of Geologists (EFG), the Geological Society of London (GSL) and the Institute of Geologists of Ireland (IGI), into line with their international counterparts. In order to understand why the updating of the 1991 IMM Reporting Code generally used by these participating institutions (and included in the London Stock Exchange Rules) was undertaken, it is appropriate to consider what has been going on internationally.

The international initiative to standardise reporting definitions for Mineral Reserves and Mineral Resources gained momentum in 1994, at the 15<sup>th</sup> CMMI Congress in Sun City, South Africa. The Council of Mining and Metallurgical Institutes (CMMI) Mineral Resources/Reserves International Reporting Standards Committee (CMMI - CRIRSCO) was formed after a meeting at that Congress, and is made up of representatives from Australia (Australasian Institute of Mining and Metallurgy (AusIMM)), Canada (Canadian Institute of Mining, Metallurgy and Petroleum (CIM)), South Africa (South African Institute of Mining and Metallurgy (SAIMM)), the UK (Institution of Mining and Metallurgy (IMM)) and the United States (Society for Mining, Metallurgy and Exploration (SME)). The primary objective of CMMI - CRIRSCO was to develop a set of international definitions for reporting mineral resources, mineral reserves and exploration results.

In March 1997, the need for an international reporting standard took on a greater urgency following the Bre-X and contemporaneous misrepresentations. A major breakthrough for CMMI - CRIRSCO came in October 1997 when five CMMI participants (Australia, South Africa, UK, Canada and USA) met in Denver, Colorado and reached provisional agreement for the definitions of the two major categories, mineral resources and mineral reserves, and for their respective sub-categories, measured, indicated and inferred mineral resources, and proved and probable mineral reserves (the Denver Accord).

Concurrently, and since 1992, the United Nations Commission for Europe (UN-ECE) had been developing an International Framework Classification for Mineral Reserves and Resources (Solid Fuels and Mineral Commodities) - the UNFC. Through a series of workshops and task force meetings, a final version of the UNFC was agreed and prepared (UN-ECE Energy/WP.1/R.70, Geneva, 1997), with the provisionally agreed CMMI - CRIRSCO definitions appended, translated into six languages and distributed worldwide for comment and trial application. By 1998, out of the 43 countries and international organisations that replied, 37 had or were in the process of applying the

UNFC and some countries were adopting it for national mineral reserves and resource inventories.

In Geneva in October 1998 agreement was reached between the CMMI - CRIRSCO and the UN-ECE Task Force for the adoption of the CMMI - CRIRSCO standard reporting definitions for mineral resources and reserves, with minor modifications, into the UNFC for those categories that were common to both systems. The UN-ECE Task Force suggested, and it was agreed, that for ease of comprehension and to facilitate translation into non-English languages, the then provisional CMMI - CRIRSCO definitions be reduced into shorter sentences. This agreement gave true international status to the CMMI - CRIRSCO definitions.

In January 1999, in Canada, the final report of the Mining Standards Task Force "Setting New Standards, Recommendations for Public Exploration and Mining Companies" was published. This report has a strong set of standards and recommends, inter alia, that the CIM work with other international mining institutions to continue to develop international standards. The CIM Reserves Committee published in August 2000 a revised code based on the CMMI - CRIRSCO international definitions and corresponding closely to the JORC Code. As a reporting standard this will be recognised by Canadian Securities Administrators (CSA). Because of the need to comply with CSA requirements, the CIM standards vary to some extent from those of Australia, South Africa, UK and USA as a group, but they are nevertheless closely compatible

As a consequence of the CMMI initiative through CMMI - CRIRSCO significant developments have taken place towards producing consistent standard reporting definitions for Mineral Resources and Mineral Reserves. It was also clear as the initiative proceeded that the accompanying Guidelines to the definitions could also be standardised to a great extent, so that in effect the reporting codes for individual countries could be developed along similar lines. This resulted in the release of updated versions of the JORC Code in Australia in 1996 and 1999, followed by publication of similar Codes and Guidelines by professional bodies in South Africa (SAMREC Code), the USA, Canada, and now with this Reporting Code, Europe, the UK and Ireland. The JORC Code (JORC - Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia) has played a critical role in initiating the development of international standard definitions for these Codes and Guidelines.

The similarity of reporting codes and guidelines in those countries represented by the CMMI - CRIRSCO is now at a point where the development of a single International Reporting Code is being actively pursued.

This exercise has taken CMMI - CRIRSCO participants to Sun City, Denver, Toronto, Sydney, London, Hanover, Brussels, Ljubljana, Galway, Alicante, Waterford, Geneva and Krakow to name but a few meeting places. None of this would have been possible without the generous support for travel provided by the Australian Stock Exchange, the UK Department of Trade and Industry, the CMMI and respective employers and businesses who allowed the time. Many thanks are due to our hosts and sponsors.

Against this background, work started on the revision and updating of the IMM 1991

Definitions in April 1999. This revised version of the Reporting Code therefore replaces the 1991 Definitions of Reserves and Resources that have been in general use in UK and Ireland. This Reporting Code is consistent with the international developments previously outlined and will be reviewed from time to time as necessary.

The Reporting Code is constructed so that Clauses are followed by Guidelines, which do not form part of the Code, but are intended to provide assistance and guidance to readers in interpreting the Code. This Reporting Code has built on earlier versions by other CMMI - CRIRSCO participants and is more explicit in dealing with diamonds, other gemstones, coal, industrial minerals, stone and aggregates. Generic terms used in this code, their equivalents and intended meaning are also listed for clarity. There are three additional mineral resource categories in the UNFC that are not used in this Reporting Code. These are of particular interest for government planning purposes which would include future land use or strategic mineral inventories. It is not intended that these categories be used for non-governmental investment and financing decisions. As the latest version within the CMMI - CRIRSCO group, this Reporting Code will probably be taken forward as the basis for the International Reporting Code.

The Consultation Draft of this Reporting Code was posted on the IMM, EFG and IGI websites in late October 2000 along with an invitation to comment. The Geological Society of London also subscribed to the process as a direct participant at this time. Well over 100 constructive comments were received from all over the world, from industry, government, from CMMI - CRIRSCO participants and other professional institutions. Consultations were held with major and small-to medium size companies and with the regulators, UKLA, AIM and the Stock Exchanges of London and Dublin. All comments were subsequently compiled and many of them have been recognised in this version of the Reporting Code.

The Reporting Code was approved by the Council of the Institution of Mining and Metallurgy on 24 May 2001, by the Board of the Institute of Geologists of Ireland on 13 June 2001, and by the Council of the European Federation of Geologists on 17 June 2001 and is binding on their individual members. The Council of the Geological Society of London adopted the Reporting Code on 20 November 2001.

Publication of hard copy of this Reporting Code is under consideration and will be announced as and when it takes place.

The input from the CMMI - CRIRSCO participants has ensured that this [Reporting Code](#) is state-of-the-art and is gratefully acknowledged. In particular, I wish to note the contribution of Norman Miskelly, Chairman of CMMI - CRIRSCO, and of Pat Stephenson, Chairman of JORC. Finally, I acknowledge the painstaking work of Eur Ing Gordon P Riddler, Chairman of the Working Group, of EurGeol John A Clifford PGeo, FIMM, FAusIMM, CEng (UK), and of Niall Weatherstone, in bringing this combined effort to a successful conclusion

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