

Horses for Courses: CRIRSCO Template and UN Framework Classification

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Abstract

There are two international systems for classifying and reporting mineral reserves and resources: that developed by the Committee for Mineral Reserves International Reporting Standards (CRIRSCO) and the United National Framework Classification for Fossil Energy and Mineral Reserves and Resources (UNFC). Key definitions and terminology used for reporting solid mineral reserves and resources (and exploration results) within these two classification have been aligned with each other through extensive co-operative efforts between CRIRSCO and UNECE since the mid 1990s.

The authors will argue that these two systems are not interchangeable and that neither provides a universal tool that can be applied to any situation where public reporting of mineral resources is necessary. In their opinion, any move to adoption of only one international system would be highly undesirable – the appropriate system should be chosen to match the objectives of the reporting in question.

The various reporting standards now in use in most of the world's major mining capital markets are within the 'CRIRSCO family'. The classifications in all the codes based on the CRIRSCO template are identical and their core definitions are all very similar. Most importantly they all have similar requirements for signoff by Competent Persons (known as Qualified Persons in Canada) who must have minimum relevant experience, professional qualifications, and accreditation through membership of an appropriate professional organisation or through an accepted licensing system. An underlying requirement of any estimates of mineral resources reported using a CRIRSCO-aligned reporting standard is that there must be "*reasonable prospects for eventual economic extraction*": in other words anything that is reported is interpreted as having some economic value.

UNFC has been developed by UNECE (the United Nations Economic Commission for Europe) to encompass resources of both solid minerals and fluid hydrocarbons. With the participation of CRIRSCO and its hydrocarbon counterpart the Society of Petroleum Engineers (with the PRMS classification) a three-way mapping among the three different classifications has been achieved. The UNFC classification includes many more categories than either CRIRSCO or PRMS and is based on a three-dimensional classification by geological knowledge (4 levels), project feasibility (4 levels), and socio-economic viability (3 levels): a total of 48 categories, some of which may themselves be sub-divided. The UNFC does not include any concept of Competent Person - it is just a classification. The UNFC explicitly classifies only *resources*, and not mineable *reserves*.

The authors consider that UNFC is the framework of choice for national or regional compilation of statistics in governmental, intergovernmental, and NGO planning and forecasting. However, whilst UNFC classified resources may be helpful in defining exploration targets or as base information for pre-feasibility or feasibility studies, the authors consider that UNFC is not a suitable framework for market and financial reporting of exploration results, mineral resource estimates, and mineral reserve estimates.

The presentation will compare and contrast the UNFC and CRIRSCO systems, and identify and contrast the roles and responsibilities of professional geologists (and their professional bodies) when working under one system or the other, particularly in relation to protection of the public.