



Global Developments in Reserve and Resource Reporting

Denver Gold Group

Restoring American Mining's Competiveness

Denver, Colorado

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Background

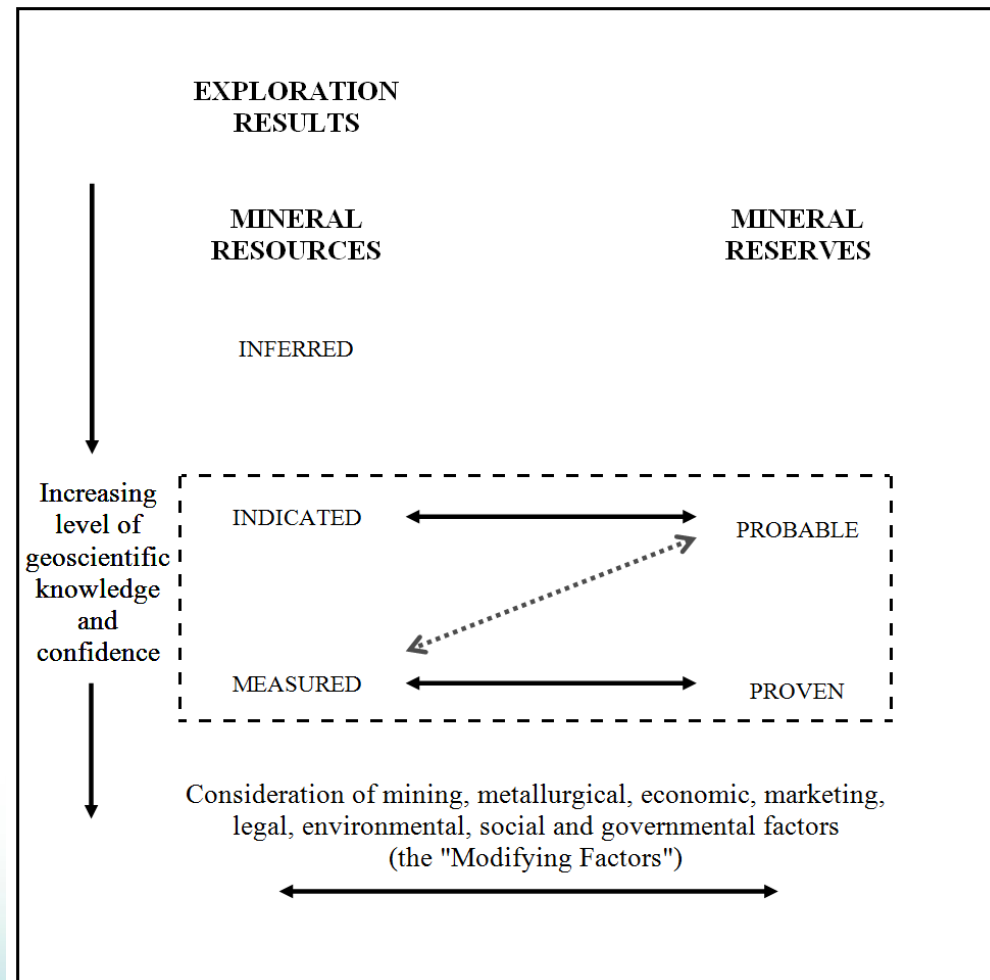
- Classification of mining reserves and resources has been an evolving for many years
 - Georgius Agricola - De Re Metallica – 1556
 - Hoover – Principles of mining – 1909
 - McKelvey, USGS Circular 831 – Principles of a Reserve/Resource Classification for Minerals - 1980
- IG7 in 1982, almost 30 years ago, was current.
- Original CRIRSCO (as CMMI in 1994) formed from desire for consistency:
 - JORC (1989), SME (1991), IMM (1991), CIM (2000), SAMREC (2000)

CRIRSCO Template

- Non-binding advisory body to promulgate best practice in the international public reporting of Mineral Exploration Results, Mineral Resources and Mineral Reserves
- Principles-based template
 - Materiality
 - Transparency
 - Competency

CRIRSCO Template

- Fundamental Definitions and Classification



CRIRSCO Core Definitions

- Standard definitions updated November 2011
 - Public Reports
 - Competent Person
 - Modifying Factors
 - Now includes *infrastructure*
 - Exploration Results
 - Mineral Resource
 - Inferred Mineral Resource
 - *It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.*

CRIRSCO Core Definitions

- Standard definitions, continued:
 - Indicated Mineral Resource
 - Measured Mineral Resource
 - Mineral Reserve
 - Probable Mineral Reserve
 - Pre-Feasibility Study
 - *..comprehensive study of a range of options..*
 - *..preferred method established...*
 - Feasibility Study
 - *.. selected development option.. ..demonstrates... extraction is reasonably justified (economically mineable)..*

Membership History

- Founding Members
 - USA (SME)
 - Australia (JORC)
 - Canada (CIM)
 - South Africa (SAMREC)
 - UK (PERC)
- New Members
 - Chile - CMC (2003)
 - Russia - NAEN (2011)

Potential Future Members

- Nearer Term:
 - Mongolia (MOU 2011)
 - Turkey
 - Argentina
 - Philippines
 - Ukraine
- Longer Term:
 - China (MOU 2010)
 - Ecuador
 - India
 - Indonesia
 - Peru
 - Columbia

Working Relationships

- ICMM as Strategic Partner and sponsor since 2007
- UNFC, continued consultation and publishing of mapping documents for UNFC to CRIRSCO
- IASB, adopted CRIRSCO template in its Extractive Industries project

CRIRSCO-aligned Codes

- Most NRO's have recently or will soon be updating their Guides and Codes.
 - Canada: Updated NI 43-101 completed June 2011
 - Russia: NAEN, completed October 2011
 - Australia: JORC, revision underway, 2012?
 - Europe: PERC, revision underway, 2012?
 - S. Africa: SAMREC, revision proposed 2012
 - SME: depending on SEC discussions, 2013?

SEC and SME

- Harry Parker, SME, numerous calls with SEC recently
- SME will be meeting with the SEC on December 16. Outstanding issues
 - Reporting of Inferred Resources
 - Commodity Price Assumptions
 - Scoping, Pre-Feasibility and Feasibility Studies, and relationship to Reserves and Resources
 - Permitting requirements
 - Coal, industrial minerals

SEC and SME

- SEC may be required to reconsider reporting guides for Mineral Sector
 - July 11, 2011, President Obama issued an executive order to “seek public comment on a plan to conduct retrospective reviews of its existing regulations”
 - “should consider how best to promote retrospective analysis of rules that may be outmoded, ineffective, insufficient, or excessively burdensome...”
 - Viewed as an opportunity to request revision of IG7
 - SME provided comment letter early October
 - SME has offered to support to the SEC to adopt/write a new reporting code

Trends in Reporting

- While the CRIRSCO Family of codes have largely left format for public reporting to the Competent Person, the success and acceptance of 43-101 suggests financial institutions and investors want:
 - Upgraded quality of reports (prescribed completeness, signed by professionals)
 - Greater emphasis on role of Competent Person inside Exploration and Mining Companies
 - CP reports to back annual resource and reserve statements
- NI 43-101 “brand” of reports are used in jurisdictions outside Canada
- Both the US (SEC) and Australia (ASX) have indicated interest in formal formats for disclosure

SME

Society for
Mining, Metallurgy
& Exploration



crirSCO

COMMITTEE FOR MINERAL RESERVES
INTERNATIONAL REPORTING STANDARDS

Thanks to CRIRSCO and SME
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