

by S.M. Rupprecht*

Synopsis

This paper is intended to document recent personal thoughts, opinions, and debate around the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC Code) (2009) and its current usage by Competent Persons. Admittedly, some debates are as old as the SAMREC Code itself and have been 'parked' as no consensus could be reached by members of the SAMREC Working Group.

Some of the more critical issues currently under examination are the definition of Competent Person and the potential registration of Competent Persons, the current re-write of the Code, and the introduction of reporting of Exploration Results, Mineral Resources, and Mineral Reserves on an 'If not – why not' basis, noncompliance with the Code and discipline, the role of the Johannesburg Stock Exchange Readers Panel, and the valuation of mineral assets based on scoping studies.

Keywords

SAMREC, Mineral Reserves, competency, reporting standards.

Introduction

This paper is intended as a personal memoir of recent thoughts and debate around the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC Code) (2009) ('the Code'). Admittedly, some debates, such as reporting of Mineral Reserves inclusive or exclusive of the Mineral Resource, are as old as the SAMREC Code itself and have been 'parked' as no consensus could be reached by members of the South African Mineral Resource Committee (SAMREC) Working Group. The author, who has been involved with the SAMREC Working Group since 2007, offers observations in his personal capacity as a professional mining engineer with the intent of getting practitioners to contemplate the influence of the Code on the mineral industry. Current practices in the compilation and reporting of Exploration Results, Mineral Resources, and Mineral Reserves are often deficient in adhering to the Code and a conscious effort must be made by the mining sector to improve the standard of public reporting, in particular Competent Person Reports (CPRs) and Public Reports issued by listed mineral exploration and mining companies.

Some of the more critical issues currently under examination by the SAMREC Working Group are the definition of Competent Person (CP), improving the reporting checklist to request practitioners to report on all critical aspects of the Code on an 'If not - why not' basis, noncompliance with the Code, the role of the ISE Readers Panel, coaching and mentoring, and the current rewrite of the SAMREC Code and proposed companion document. The following quote serves to highlight the tone and intent of the SAMREC Code, which practitioners should consider when reporting Exploration Results, Mineral Resources, and/or Mineral Reserves or compiling Public Reports.

'The SOUTH AFRICAN CODE FOR THE REPORTING OF EXPLORATION RESULTS, MINERAL RESOURCES AND MINERAL RESERVES (the SAMREC Code, or the Code) sets out minimum standards, recommendations and guidelines for Public Reporting of Exploration Results, Mineral Resources and Mineral Reserves in South Africa. The first version of the SAMREC Code was issued in March 2000 and adopted by the JSE in their Listings Requirements later that same year. The Code has been adopted by the SAIMM, GSSA, SACNASP, ECSA and PLATO, and it is binding on members of these organizations'

Concurrently with the evolution of the SAMREC Code, the Committee for Mineral Reserves International Reporting Standards (CRIRSCO), initially a committee of the Council of Mining and Metallurgical Institutions

^{*} University of Johannesburg, Johannesburg, South Africa.

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(CMMI), has since 1994 been working to create a set of standard international definitions for reporting on Mineral Resources and Mineral Reserves. As a result of the CRIRSCO/CMMI initiative, considerable progress has been made towards widespread adoption of globally consistent reporting standards. These are embodied in similar codes, guidelines, and standards published and adopted by the relevant professional bodies around the world. The definitions in the SAMREC Code are either identical to, or not materially different from, other international definitions. Thus, whatever modifications are made to the SAMREC Code, global review is conducted to ensure alignment of the Code to the fundamental principles of public reporting accepted by all member countries of CRIRSCO.

The aim of the Code is to contribute to earning and maintaining trust of investors and other interested parties by promoting high standards of reporting of mineral deposit estimates (Mineral Resources and Mineral Reserves) and of exploration progress. Concurrently with the evolution of the SAMREC Code, CRIRSCO has evolved to become a more rigorously constituted committee. It is recognized by global organizations such as the International Accounting Standards Board (IASB), the United Nations Economic Commission for Europe (UNECE), and the International Council on Mining and Metals (ICMM) as the key international organization representing the mining industry on issues relating to the classification and reporting of mineral assets. CRIRSCO's current members represent Australia, Canada, Chile, South Africa, the United Kingdom and Western Europe, Russia, and the United States of America, with the prospect of other regions and countries joining in future.

The SAMREC Code contributes to promoting high standards of reporting of Exploration Results, Mineral Resources, and Mineral Reserves). To date, the SAMREC Code has relied on a peer review process and on self-policing. The effectiveness of this self-policing has been debated since the inception of the Code, and although it is sometimes seen as ineffective, the author believes that self-regulation is the preferred method to monitor public reporting of Exploration Results, Mineral Resources, and Mineral Reserves. However, one must be mindful that through the history of mining there have always been incidents of fraud and corruption. In the 1960s Australia was affected by the Poseidon nickel boom and bust, which raised concern about unacceptable reporting practices. The BRE-X scandal in 1997 lent much impetus to the creation of international codes, which provide investors. potential investors, and other stakeholders with a sense of confidence in statements made by promoters and owners of mineral projects. Therefore, it is critical that the mineral industry maintains and even improves its reputation through compliant reporting.

Governing principles of the Code

Often in the course of performing the task of writing a technical report (CPR, Public Report, *etc.*) CPs overlook the basic principles that govern the application of the SAMREC Code. The values of Transparency, Materiality, and Competence are guiding principles of the Code.

Transparency requires that the Competent Person provides sufficient information, which is clear and unambiguous, and that the technical report does not mislead

or omit material information. As a rule it is better to provide too much information rather than too little.

Materiality means that all relevant information should be made available and reasoned and balanced reporting should be undertaken. To reiterate, this means what the various stakeholders and including investors and their professional advisors would reasonably require, and reasonably expect to find for the purpose of making a reasoned and balanced judgment regarding the Exploration Results, Mineral Resources, or Mineral Reserves being reported. If relevant information is lacking then an explanation for its omission should be given; this is commonly referred to as the 'If not – why not' approach to reporting.

Competency requires that all technical work is conducted by suitably qualified and experienced persons who are subject to an enforceable professional code of ethics and rules of conduct. Currently, registration of competency is not required for reporting by the SAMREC Code, although for the past few years registration has been under discussion. This topic will be further referred to in the next section of this paper.

Critical to reporting is the principle that any material aspects for which the presence or absence of comment could affect the public perception or value of the mineral occurrence must be disclosed. It is important that the CP is not unduly affected by outside influences and remains able to present a fair and accurate technical report.

CPs and executives of public listed companies are reminded that the Code sets out a required minimum standard for the Public Reporting of Exploration Results, Mineral Resources, and Mineral Reserves. References in the Code to Public Report or Public Reporting pertain to those reports detailing Exploration Results, Mineral Resources, and Mineral Reserves and prepared as information for investors or potential investors and interested and affected parties.

As authors, CPs must insist that they provide written approval (JSE Listing Requirement) of specific documentation that is referred to in a Public Report as to the form, content, and context in which that documentation is to be included in a Public report (Clause 8 and T8 of the SAMREC Code). As a reminder, the Code defines Public Reports as follows:

'Public Reports are all those reports prepared for the purpose of informing investors or potential investors and their advisers and include but are not limited to companies' annual reports, quarterly reports and other reports included in JSE circulars, or as required by the Companies Act. The Code also applies to the following reports if they have been prepared for the purposes described in Clause 3: environmental statements; information memoranda; expert reports; technical papers; website postings; and public presentations. And T8 (A) (ii) Announcements by companies should comply with the SAMREC Code, where applicable, and insofar as they relate or refer to a Competent Person's report they should: (a) Be approved in writing in advance of publication by the relevant Competent Person.'

Declaration of competency

The glossary of terms as provided in the SAMREC Code has no definition provided for CP. However, competency is one of the fundamental components of the Code. Competency is

described in Clause 4 of the SAMREC Code as follows: 'The Public Report is based on work that is the responsibility of suitably qualified and experienced persons who are subject to an enforceable Professional Code of Ethics'. In addition, a 'Competent Person' is a person who is registered with SACNASP, ECSA, or PLATO, or is a Member or Fellow of the SAIMM, the GSSA, or a Recognized Overseas Professional Organization (ROPO).

There is a school of thought that CPs should declare their competency in terms of the technical work that they conducted (Appendix A), However, the Code is quite clear that the onus of determining competency lies with the individual and should be monitored by his or her peers. Persons being called upon to sign as a CP must be clearly satisfied in their own minds that they are able to face their peers and demonstrate competence in the commodity, type of deposit, and situation under consideration. Self-regulation is seen as the preferred method of control, but requires peers to monitor CPs' work and report noncompliance. This is not currently happening in the minerals industry and could lead to others monitoring and controlling technical and/or public reporting. The JSE Readers Panel reviews CPRs that are submitted to the JSE to support certain transactions, but ongoing reporting is not monitored. This may change in the future and the JSE, through the Readers Panel, has begun to review annual reports of exploration and mining companies and their compliance with the SAMREC Code, Section 8.63(l) and 12 of the JSE Listing Requirements.

Some professionals believe that the onus on competency should lie with a statutory registration body such as SACNASP, PLATO, or ECSA. The issue of competency is sometimes confused with the fact that a CP must be a member of ECSA, SACNASP, or member/fellow of the SAIMM, GSSA, or a ROPO) which all have enforceable disciplinary processes including the power to suspend or expel a member/fellow. This is important in that these professional organizations all provide an enforceable professional code of ethics, which is a basic requirement for a CP. Although these organizations have disciplinary powers, they do not themselves determine a person's competence. The responsibility of deeming oneself as competent relies on the individual as the 'CP should be clearly satisfied in their own mind that they could face their peers and demonstrate competence in the commodity, type of deposit and situation under consideration' (SAMREC Code Clause 10).

It is up to a CP's peers to ensure that the authors of technical (Public) reports act in a competent and appropriate manner. Complaints made with respect to the professional work of a CP should be made to the SAMREC SAMVAL Committee (SSC) (SAMREC Code Clause 11) or to the professional organization the author is registered with and the complaint dealt with under the disciplinary procedures of that organization.

To reiterate, being a member of a professional organization does not make a person 'Competent', the CP must demonstrate their own competency applying to a code of ethics, and if in doubt a person should either seek the opinion of appropriately experienced peers or should decline to act as a CP.

Self-regulation and complaints

The need for self-regulation and action on noncompliant

reporting has been an issue of debate since the inception of the SAMREC Code. There are many reasons for a general lack of discipline in the industry, one being that reports viewed are often under confidentiality agreements. Another is the reluctance of practicing CPs to make formal complaints, justifying their inactivity with reference to the proverb 'persons who live in glass houses shouldn't throw stones'.

Noncompliance in reporting is not limited to South Africa but is a problem for all reporting countries. A general consensus is that more focus should be spent on coaching and mentoring of CPs. Rather than taking disciplinary action or applying sanctions against CPs, there should be a move towards coaching and mentoring. It is proposed that the SSC through the SAMREC Working Group form a subcommittee whose primary objective will be to promote short courses through the GSSA and/or SAIMM to improve knowledge of the Code.

Similarly, it may be prudent for the learned societies to anonymously publish corrective actions for noncompliant reporting. The AusIMM successfully does this and it should be adopted in South Africa. It is interesting to note that if noncompliance is established, the AusIMM may impose a penalty, which may include a reprimand, mediation, and/or counselling. Suspension of membership to the AusIMM may not be imposed by the Complaints Committee.

Another measure, recently taken by Canada (Ontario Securities Commission), was to conduct a compliance review of 50 technical reports, which represented approximately 10% of the NI 43-101 technical reports submitted over the period 30 June 30 2011 to 30 June 30 2012. The review found that 40% of the CPRs required significant changes, and a further 40% required minor changes.

It should be noted that professional organizations do not take legal responsibility for a CP or a CPR. Membership does not guarantee competency for any specific technical issue nor do qualifications necessarily guarantee competency. The onus of conducting competent technical work remains with the CP. Professional organizations are legally liable for ensuring that a person who applies for and is accepted for membership satisfies the requirements of the organization's Constitution and by-laws. In doing so, the professional organization affirms that the individual satisfies the requirements and has the qualifications to be a member and ensures that the member complies with the code of ethics of the organization. The organization has no liability for the negligent activities of its members.

One thing is for certain, if the mineral industry does not self-regulate its reporting then some other agency will, and that could lead to technical reports being reviewed by persons who are not mineral experts. Such an outcome would be detrimental to the mining industry as a whole.

Code revisions

In a process that began in 2013, the SAMREC Code is being reviewed and modified to ensure that it remains relevant to the mining industry and keeps current with recent developments and revisions made to other international codes, notably the CIM (Canadian) 2014 revision, the JORC (Australia and New Zealand) 2012 revision, the PERC (European) 2013 revision, and SME (USA) 2014 issue.

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The SAMREC Code update is designed to improve the Code and eliminate possible contradictory reporting practices, improve the usability of the SAMREC tables, and improve the clarity of the Code. One of proposed changes to the Code is the inclusion of an 'If not – why not' requirement. The proposal is that every aspect of the checklist must be answered so as to ensure that CPs adequately address all key elements of the Code; where aspects are omitted, the professional is required to comment why these particular aspects have not been addressed.

The South African Code for the Reporting of Mineral Asset Valuation (SAMVAL Code) has also been reviewed over the past two years with changes being made to keep it in line with international best practice. One of the biggest issues being dealt with by the South African Mineral Asset Valuation (SAMVAL) Working Group is the conclusion that the registration of Competent Valuators (CVs) was a necessity and that registration be through a statutorily established regulatory body (SERB). The SA Council of Property Valuation Professionals (SACPVP), which is a SERB governed by the IVS code of ethics, in principle is willing to house the registration of CVs.

In addition to revisions to the SAMREC and SAMVAL codes, a revision of the South African National Standard: South African Guide to the Systematic Evaluation of Coal Resources and Coal Reserves (SANS10320:2004) is also in progress and is currently in a draft form. Interaction between the SAMREC Working Group and the SANS10320 rewriting committee is aimed at bringing about alignment between the SAMREC Code and SANS10320.

Possible Reserves

In October 1997, five participating countries of the Council of Mining and Metallurgical Institutes (CMMI) (Australia, South Africa, UK, Canada, and USA) met in Denver, Colorado and reached provisional agreement for definitions of Mineral Resources and Mineral Reserves, as well as their respective sub-categories Measured, Indicated, and Inferred Mineral Resources and Proved and Probable Mineral Reserves (commonly referred as 'the Denver Accord'). One of the outcomes of the Denver Accord was the finding that the 'Possible Mineral Reserve' category would not apply to Mineral Reserve reporting. Only a Proved and Probable Mineral Reserve may be declared under the SAMREC Code. Yet in Canada, Preliminary Economic Assessments (PEAs) are publicly reported and companies often provide results of these assessment/studies. Under the SAMVAL Code, projects (mineral assets) are often valued on the basis of Inferred Mineral Resources with 'Modifying Factors' applied. The author has even seen Exploration Results valued in this manner. The author contends that the mineral industry often treats Inferred Mineral Resources as Mineral Reserves through the application of Modifying Factors in order to value mineral assets, thus in essence creating a so-called 'Possible Reserve'.

In the same vein, Scoping Studies, which have applied Modifying Factors to Mineral Resources yet do not guarantee the conversion of these Mineral Resources to Mineral Reserves, are often used to value a mineral asset. When these

valuations are reported, the necessary wording should be provided warning the reader that there is no assurance that these Mineral Resources can be converted to Mineral Reserves.

In view of the fact that valuations are conducted on modified Resources, often upgraded to 'Possible Reserve' category, perhaps it is time we accept what is done in practice and revert to the old terminology of a 'Possible Reserve'. The author accepts that this idea will probably be rejected and commentary regarding the Denver Accord will be raised. However, perhaps it is time that 'Possible Reserves' be reviewed once again. Alternatively, the mineral industry should review the practice of reporting PEAs and Scoping Studies to ensure that potentially optimistic results are not prematurely reported under the guise of a PEA or Scoping Study. Perhaps a review of the published results of PEAs and Scoping Studies should be compared to the subsequent PFS or BFS to determine the accuracy of the initial PEA/Scoping Study when compared to the later, more detailed studies. Applying cash flows to Scoping Studies for valuation purposes, although supported by many CVs, must be viewed with caution and CVs must appropriately discount the cash flow to reflect the level of uncertainty associated with Scoping Studies.

JSE Readers

The role of the JSE Reader is sometimes misunderstood. The role of the JSE Reader is to ensure that a CPR complies with the requirements of the SAMREC Code, Section 8, and Section 12 of the JSE Listing Requirements, not to validate the potential of the project. However, it must be acknowledged that there is an element of peer review in the process to ensure that technical work conducted makes sense and is fair and reasonable. This process is viewed positively by other countries. However, the JSE Readers process is not without its problems.

One of the dilemmas with the Readers review process is that a CPR encapsulates a number of areas that may stretch the capabilities of a single Reader. For example, the Reader is required to be knowledgeable in mineral resources, geotechnical engineering, mine engineering, ventilation, metallurgical processes, and environmental, infrastructural, marketing, governmental, and social aspects, as well as valuation of mineral projects. It may be prudent to introduce more than one Reader to conduct reviews of CPRs, thereby improving the overall review process. This would lead to a more robust review of CPRs and not just compliance to JSE requirements. However, it must be recognized that ultimately the responsibility for the CPR remains with the authors and the CPs.

Conclusion

The SAMREC Code is meant as a minimum standard, recommendation, and guideline for the public reporting of Mineral Exploration Results, Mineral Resources, and Mineral Reserves. Members of the GSSA and SAIMM are reminded that they are required to comply with the SAMREC and SAMVAL codes when reporting, regardless of whether they may be working under the auspices of ECSA or SACNASP.

One of the basic problems with public reporting is that many reports are issued to companies without going through a proper peer review process. Although these reports are claimed to be 'SAMREC compliant', many in fact do not completely comply with the reporting requirements of the Code, and in many instances they do not meet the guidelines of transparency and materiality. There are a number of examples where public reporting is materially incorrect and misleading to the public. It is this area of reporting that requires immediate attention by the minerals industry.

Public Reporting of Mineral Exploration Results, Mineral Resources, and Mineral Reserves should not be taken lightly and should be undertaken with the proper due diligence that the task demands. The mining community needs to actively query CPRs that are not of the minimum standard. Mineral exploration or mining companies also have a responsibility to ensure that the reports issued comply with the codes as well as the local or regulatory (e.g. JSE listing) requirements. It is the responsibility of the CP and the CP's peers to ensure reports are compliant, balanced, and not misleading. If the mining industry fails to do this, once again the industry will be plagued by cases where the public is defrauded by unscrupulous promoters, which may lead to litigation and ultimately will harm the industry and the reputation of those that practice in the minerals industry. The self-regulatory process proposed should not be punitive, except in special cases where fraud or deception is deliberate. Rather, the industry needs to implement a coaching and mentoring approach, thereby uplifting the overall standards of public reporting.

CPs need to recognize the importance of delivering quality documentation in terms of CPRs and public reporting. Although there is always pressure to deliver cost-competitive proposals to conduct technical reports, the CP must ensure sufficient time is allocated to allow thorough reporting. The CP must not remain silent on any issue for which the presence or absence of comment could impact the public perception or value of the mineral project. To promote this, the re-write of the SAMREC Code has introduced an 'If not why not' reporting criterion.

Ongoing training for CPs and CVs needs to be actively pursued by professional organizations, with the costs of such training kept to a minimum. Mineral companies also must acknowledge the importance of such training and must be willing to free staff to attend these types of training courses.

Acknowledgements

The opinions presented in this paper are those of the author and are meant to stimutate further discussion and debate. The author would like to extend special thanks to Ken Lomberg for his assistance in peer reviewing this paper.

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http://www.samcode.co.za/downloads/SAMREC2009.pdf

Appendix A



Registration of Competent Person

Note that recognition as a Competent Person in terms of the SAMREC and SAMVAL reporting codes is an indication that your peers believe that you are competent to report on the mineralization type pc

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Personal details			
Name, Surname: Date of Birth:			
SAIMM Membership No: Membership status (Fellow, mer Continuous years of membershi		E	
GSSA Membership No: Membership status (Fellow member etc.): Continuous years of membership:			
Educational Qualifications Degree: University: Year:		E	
Professional Registration with Year of initial registration:	statutory bod	y/s:	
Career summary (Detailed Curriculum Vitae to be a	attached)		
Current position:	Date From:	Date To:	Position Held:
Previous:	Date From:	Date To:	Position Held:
Previous:	Date From:	Date To:	Position Held:
Previous:	Date From:	Date To:	Position Held:
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Recognition Confirmed by SAIMM or GSSA

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