AUSTRALASIAN JOINT ORE RESERVES COMMITTEE

JORC Summary Paper of Key Issues and Work Plan

Letter from the Chair

The Australasian Joint Ore Reserves Committee (JORC) has today released this Summary paper of highlights and Key Issues based on responses from the online survey and other discussions held regarding the 2012 JORC Code review.

We would normally have started the periodic review of the JORC code with public meetings of JORC stakeholders, though as with many things during this time, this has not been possible due to the COVID pandemic impacts. The survey allowed us to start receiving feedback from various stakeholders and we plan for more direct engagement during this year (Covid restrictions permitting).

Findings to date have shown that there is strong support to review and update the Competent Person framework to enable verification of competency, and we will be actively working with our parent bodies and wider stakeholders to progress this area. In addition, a large response with diverse views were provided related to environmental, social and governance (ESG) considerations and how these could be addressed in the JORC Code if appropriate.

We shall be actively engaging and consulting with stakeholders during the coming months and will be forming working groups to tackle key areas which require further robust discussion and analysis.

Again, JORC is grateful to everyone who took the time to register and complete the survey and has been involved in the review of the JORC Code.

Yours sincerely

Steve Hunt
Chair, JORC
28 June 2021

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Overview

Background to the JORC code

The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code') is a professional code of practice that sets minimum standards for Public Reporting of Exploration Results, Mineral Resources and Ore Reserves.

The JORC Code provides a mandatory system for the classification of Exploration Results, Mineral Resources and Ore Reserves according to the levels of confidence in geological knowledge and technical and economic considerations in Public Reports.

Public Reports prepared in accordance with the JORC Code are reports prepared for the purpose of informing investors or potential investors and their advisors. They include, but are not limited to, annual and quarterly company reports, press releases, information memoranda, technical papers, website postings and public presentations of Exploration Results, Mineral Resources and Ore Reserves estimates.

The JORC Code was first published in 1989, with the most recent revision being published in 2012. Since 1989 and 1992 respectively, it has been incorporated in the Listing Rules of the Australian Securities Exchange, other Australian stock exchanges and the NZX (New Zealand's Exchange), making compliance mandatory for listing public companies in Australia and New Zealand.

Public reporting in accordance with the Code requires the formal signoff of a Competent Person, who is a mining professional meeting specific qualification, experience, and professional membership requirements.

The Joint Ore Reserves Committee (JORC)

The JORC Code is produced by the Australasian Joint Ore Reserves Committee (' JORC '). JORC was established in 1971 and is sponsored by the Australasian mining industry and its professional organisations.

JORC comprises representatives of each of the three parent bodies: The Minerals Council of Australia (MCA), The Australasian Institute of Mining and Metallurgy (The AusIMM), and the Australian Institute of Geoscientists (AIG); as well as representatives of the Australian Securities Exchange (ASX), the Financial Services Institute of Australasia (FinSIA) and the accounting profession, and an observer from the Association of Mining and Exploration Companies (AMEC).

 JORC is a member of and works closely with CRIRSCO, the Committee for Mineral Reserves International Reporting Standards to encourage international consistency in the development of reporting standards and the promotion of best practice in implementation of the relevant standards and codes.

Review of the JORC Code

JORC has resolved to undertake a detailed review of the Code provisions and procedures, to maintain professional standards and to satisfy the ongoing governance requirements of the ASX and ASIC.

In parallel with this review, the JORC parent bodies are seeking to also review the requirements and procedures for nomination (including verification) of Competent Persons under the JORC Code.

Stakeholder Engagement and Consultation

Stakeholder Engagement

The process of reviewing the Code involves extensive consultation with a diverse range of stakeholders including professional bodies, industry, regulators, and various technical and non-technical professions within Australasia and internationally.

Table 1: Stakeholder map

Parent Bodies: AusIMM AIG MCA	JORC	ASIC	Technical Professional
			Consultant / Advisor
		ASX	Investor / Potential Investor
			Company Executive
		CRIRSCO FinSIA Mines Departments Government Agencies International Societies AMEC NGO	Non-executive directors
			Public/Investor Relations
			Banking and Finance
			Legal
			Analysts
			Media
			ESG Professional

Consultation activities

The review of the 2012 JORC Code commenced in 2020. Initial engagement was delayed due to COVID restrictions which limited public engagement. JORC revised its initial engagement plan and subsequently developed and released the JORC online survey.

Stakeholder engagement and consultation activities have included general feedback provided directly and indirectly via emails, meetings, and online survey with submissions from individuals, industry bodies, companies, and organisations.

Direct consultation commenced in 2021 with engagement across a broad range of stakeholders including Professional bodies, Government Agencies, Government Departments, and the investment community.

Table 2: Summary of stakeholder engagement activities

Activity	Purpose and activity to date
Online Survey	Online survey consisting of 193 questions, received >500 responses. Submission results under review by JORC and future working groups.
Meetings (face-to-face / online)	Meetings have been held with various industry groups, organisations, and individuals as discussion-based format to gauge thoughts, ideas and concerns facing industry.
Parent body feedback	Feedback has been provided from parent bodies based on their consultation activities and member engagement.
Website updates	Summary of development of the JORC code including status of code update are published on the JORC website http://www.jorc.org/. The information is also shared to the parent bodies (AusIMM, AIG, MCA) for sharing via their websites and social media.
Media Releases	Media releases are published at commencement of review and at key milestones via the JORC website.
Working groups	A series of working groups will be established to review and discuss key areas and will provide recommendations for further stakeholder consultation and review.

Consultation will continue during the next phase of engagement and will include the following groups listed in Table 3

Table 3: Stakeholder consultation planned for 2021

Group	Stakeholder
Industry and Professional bodies	Australian Institute of Geoscientists (AIG)
	Australasian Institute of Mining and Metallurgy (AusIMM)
	Minerals Council of Australia (MCA)
	Association of Mining and Exploration Companies (AMEC)
	Financial Services Institute of Australasia (FINSIA)
	Committee for Mineral Reserves International Reporting Standards (CRIRSCO)
	Institute of Quarrying Australia (IQA)
	Engineers Australia
	Geological Society of Australia (GSA)
	Sustainable Minerals Institute (SMI)
	Commodity based industry groups
	Chamber of Commerce (National, State and Territory)
	International Council on Mining and Metals (ICMM)
	Australian Geoscience Council (AGC)
	Law Council of Australia (Business Law)
Government Agency	Geoscience Australia
	CSIRO
Government	State and Territory Mines Departments
Regulatory	ASIC
Exchanges	ASX, NSX, SSX, NZX, PNGX
	SGX, HKSX
Finance	Australian Shareholders Association
	CPA Australia
	Chartered Accountants Australia & New Zealand (CA ANZ)
	Securities and Exchange Commission (SEC)
	Stockbrokers Association
	Auditors
Directors and company officer's institutes	Australian Institute of Company Directors (AICD)
	Governance Institute of Australia

Review Process and Findings

Survey Review Process

The online survey was open to all stakeholders for an extended period during December 2020 to April 2021.

Review of survey response was undertaken by the JORC during the period April 2021 to May 2021. A total of >500 survey submissions were received. Survey analytics conducted included response grouping and ranking by priority areas based on a combination of factors including number of respondents, detail of responses, similarity or opposition of opinion and potential future implications and considerations.

Survey Findings

Primary Background of Respondent

The survey found technical professionals made up 72% of respondents, which included geoscientists, mining, geotechnical, tailings and processing engineers, and metallurgists. Company Executives and Directors represented 18% of respondents, with a remaining 10% representing a range of professions and industries including Government, NGO, Legal, Technology, Health, Safety & Environment, and media.
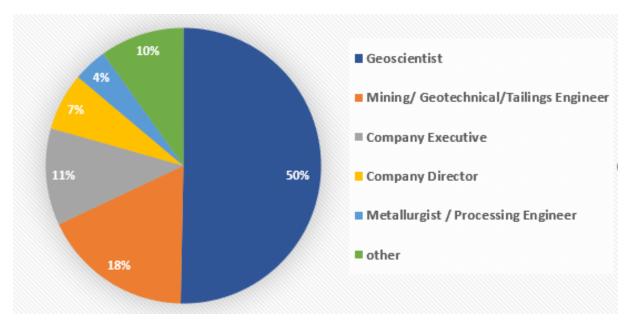
Figure 1: Primary Background of Respondent

Minerals Industry Experience (active user) or Exposure to the Code

The survey highlighted the extensive experience held by most respondents, with over 370 respondents having more than 20 years' minerals industry experience, and comparably this group responded as having the most exposure to the Code.
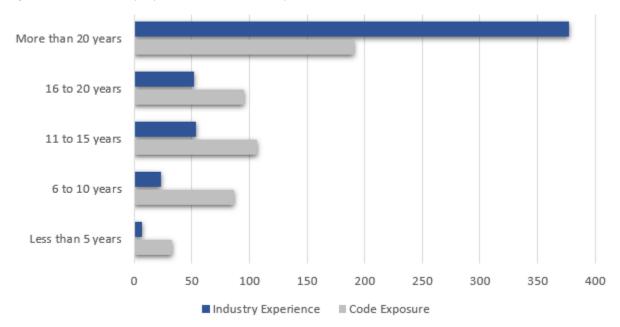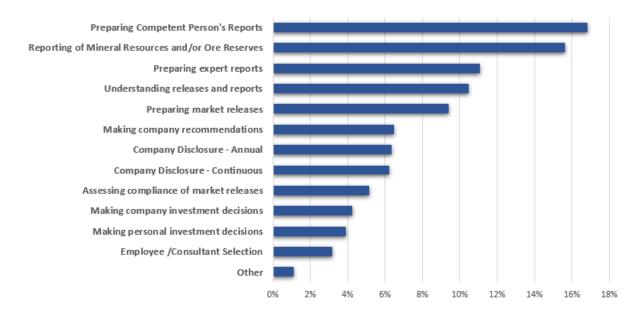
Figure 2: Minerals Industry Experience (active user) or Exposure to the Code

Reasons for using the Code

Respondents were asked to select all applicable reasons for using the code. Results demonstrate that the top three reasons for using the Code relate to preparation of Competent Person's reports, reporting of Mineral Resources and/or Ore Reserves and for preparing expert reports. This was followed by market related reasons, with 19% related to preparation and understanding of market releases and reports. Company annual and continuous disclosure returned 12% of responses.
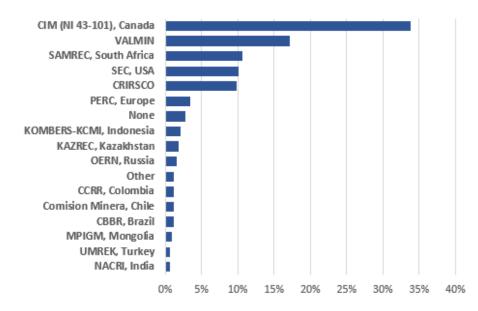
Figure 3: Reasons for using the Code

Other Resources and Reserves reporting codes, standards, templates, and guidelines applied

Respondents were asked to select which other Resources and Reserves reporting codes, standards, templates, and guidelines they had previously applied, with results showing that approximately 34% of respondents have applied the Canadian Institute of Mining Metallurgy and Petroleum (CIM) National Instrument 43-101(NI 43-101). Approximately 17% respondents have applied the VALMIN code and approximately 10% have applied other codes, standards and guidelines based on the CRIRSCO template.

Figure 4: Other Resources and Reserves reporting codes, standards, templates, and guidelines you have applied
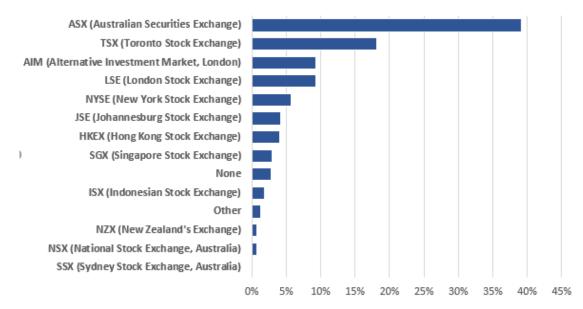

Primary exchange(s) for reporting

Most respondents indicated they use the Australian Securities Exchange (ASX) for reporting, followed by approximately 28% of respondents using the Toronto Stock Exchange (TSX). The London Stock Exchange (LSE) and the Alternative Investment Market (AIM) returned a combined 18% of respondent use.
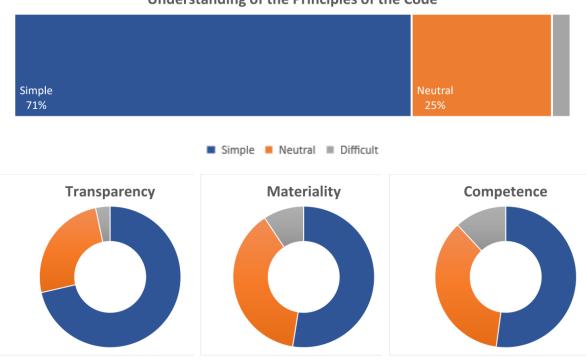
Figure 5: Your primary exchange(s) for reporting

Key Highlights and Issues

Understanding the Principles of the Code

Survey response indicates that 71% of respondents felt the overall principles of the code were simple to understand, 25% were neutral on the topic and approximately 3% indicated they found understanding the Principles of the Code difficult.

When asked to indicate understanding on each of the three principles; Transparency, Materiality and Competence, the majority of respondents indicated each principle was simple to understand, however approximately 9% indicated Materiality was difficult, and approximately 12% that the principle of Competence was difficult.

*Figure 6: **Understanding of the Principles of the Code***

How much value would you see in development of a Guidance Note for applying the Code?

The survey asked respondents whether they would see value in development of a Guidance Note for applying the Code; approximately 82% indicated that a Guidance Note would be of some value, and 18% responded that it would be of no value.
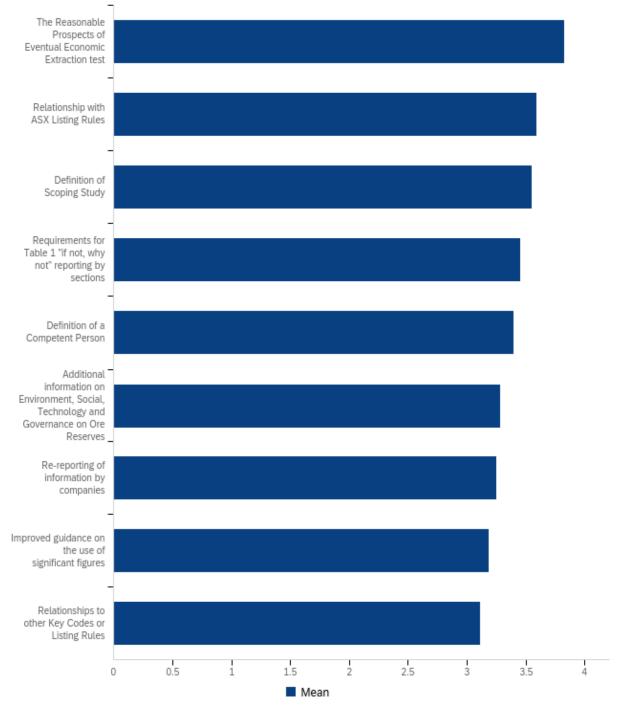
Figure 7: How much value would you see in development of a Guidance Note for applying the Code?

Areas you would like to see greater clarity

The survey asked respondents to indicate which areas of the Code they would like to see greater clarity regarding. Mean results suggest respondents would like greater clarity concerning several areas including the Reasonable Prospects of Eventual Economic Extraction test (RPEEE), definition of a Competent Person and Additional information on Environment, Social, Technology and Governance on Ore Reserves.

Figure 8: Areas you would like to see greater clarity regarding (mean score out of 5)

Preferred means of rolling out the updated Code

The survey asked respondents to rank their preferred methods of rolling out the updated Code. The first preference ranking demonstrated that 50% of respondents would prefer an online webinar format followed by 25% by face-to-face method.

Figure 9: Preferred means of rolling out the updated Code (first preference ranking)

Summary of Key Issues

The survey responses highlighted several key issues requiring further focussed review. The key areas identified from the survey findings and other stakeholder discussions have been grouped into the following key areas, listed in Table 4.

The next stage of consultation will focus on the key areas identified. A series of Working Groups will be formed to review issues / opportunities raised to date from the online survey results, industry bodies and other organisational feedback.

Table 4: Key Issues Summary table

	Key Area	Considerations
1	Competent Person (CP)	• Accreditation of competency • Verification and registration • Registration options • CP Consent forms
2	Reasonable Prospects (RPEEE)	• RPEEE test (Including incorporation of ESG considerations)
3	Environmental, Social, Governance (ESG)	• Integrating ESG factors into the Code (and the RPEEE test)
4	Reporting of Risks	
5	Reconciliation performance	
6	Guidance notes	• Publication of guidance notes • Education and worked examples • Definitions and terminology • Modifying factors • Price and cost assumption transparency • Definitions of Studies • Disclosure reference list • Improve guidance for metallurgical input
7	Use of JORC Code for non-reporting purposes	• Referencing of code • Non-public reporting
8	Relationship to ASX Listing Rules and/or to other codes	
9	Other Issues	• Code format • Code Structure, Table 1 structure • Code comprehensibility and consistency

Next Steps and Timeline

Appointment of Project Manager

JORC and JORC parent bodies (AIG, AusIMM and Minerals Council of Australia) have appointed a project manager to manage the JORC review on behalf of the JORC.

Enquiries regarding the Code update can now be addressed to:
Project Manager – JORC Review
update@jorc.org

Updates regarding the Code review will be published on the JORC website, Code Update page:
http://www.jorc.org/code-update.asp

Formation of Working Groups

JORC will be forming a series of Working Groups covering key areas for review. Individuals will be invited to submit an expression of interest to join via an online prequalification process. Further information and online registration will be available on the JORC website from mid-July 2021.

Assessment of potential candidates may be assessed on the following criteria:

- Working Group area of interest
- Experience
- Confirmation of availability
- Association membership
- Potential conflict of interests

In parallel, AusIMM and AIG will be forming a Joint Taskforce to undertake analysis, consultation, and review of the requirements for Competent Persons under the Code.

Anticipated Timeline

JORC is actively progressing the review process of the Code and anticipate timing of key milestones as listed in Table 5. Consultation will take place via online and face-to-face methods where practicable. The final draft Code is subject to review by regulatory bodies and requires Ministerial Approval prior to final release, the timing of these processes may vary.

In preparation for final release of the revised Code, a roll-out plan will be developed, and further information will be provided in due course.

Table 5: Anticipated timing of key milestones

Item	Delivery	Anticipated timing
Online Survey	Online	complete
Review of results	Online	complete
Appointment of Project Manager	Internal	complete
Summary Paper of Key Issues	Digital distribution	complete
Working Group EOI	Website	Mid July 2021
Working Group selection	Internal	Late July 2021
Working Group review process	Online workshops	August – November 2021
Draft JORC 2022 release	Digital distribution	Q1 2022
Draft JORC 2022 review period	Online	Q1 2022
Final Draft	Online	Q2 2022
Ministerial Approval		TBC
JORC 2022 release		TBC