



## **CRIRSCO Definitions (summary of changes agreed at 2023 CRIRSCO AGM)**

**The updated definitions have been incorporated into the June 2024 version of  
the CRIRSCO International Reporting Template**

- The June 2024 release of the Template incorporates changes to the CRIRSCO Standard Definitions which were agreed at the 2023 CRIRSCO AGM in Rio de Janeiro, Brazil in October 2023 (as summarised on the next slide).
- In addition to minor changes in the wording of several definitions, the defined term 'Mineral' was removed, and the term 'Life of Mine Plan' was added to the list of Standard Definitions.
- In addition, minor changes were made to the wording of other text in the Template to be consistent with the changes in wording of some of the definitions. In Section 8, where the definition for 'Life of Mine Plan' has been added as clause 8.5, some clauses were repositioned and renumbered.
- A full review of the entire Template was not carried out as part of this update.

Slide	Item	Status (June 2024)
3	Summary (this slide)	
4	Mineral	REMOVED
5	Public Reports	Changed
6	Competent Person	Changed
7	Modifying Factors	Changed
8	Exploration Targets	No change
9	Exploration Results	No change
10	Mineral Resource	Changed
11	Inferred Mineral Resource	Changed
12	Indicated Mineral Resource	Changed
13	Measured Mineral Resource	No change

Slide	Item	Status (June 2024)
14	Mineral Reserve	Changed
15	Life of Mine Plan (LoMP)	ADDED
16	Probable Mineral Reserve	No change
17	Proved Mineral Reserve	No change
18	Scoping Study	Changed
19	Pre-feasibility Study	Changed
20	Feasibility Study	Changed
21	Figure 1	Changed

<p><b>Nov. 2019 (Clause 2.2 Page 7)</b></p>	<p>A Mineral is any substance, extracted for value, occurring naturally in or on the Earth, in or under water or in tailings, residues or stockpiles, having been formed by or subjected to a geological process but excludes, water, oil and gas.</p>
<p><b>Oct. 2023 / June 2024 (Removed)</b></p>	<p>Moved from definitions to Appendix 1 (Generic Terms and Equivalents)</p>
<p><b>Reason for change</b></p>	<p>During discussion it was clear that the widespread use of the term mineral in standard geology terminology makes it confusing to try to define it here. It was agreed that the adjective Mineral, as used in Mineral Resource and Mineral Reserve, matches better the term “material of economic interest” as used in Subpart 1300 of the SEC’s regulation S-K (“S-K 1300”).</p> <p>See: <a href="https://www.ecfr.gov/current/title-17/chapter-II/part-229/subpart-229.1300?toc=1">https://www.ecfr.gov/current/title-17/chapter-II/part-229/subpart-229.1300?toc=1</a></p>

<p><b>Nov. 2019</b> <b>(Clause 2.9 Page 8)</b></p>	<p>Public Reports are reports prepared for the purpose of informing investors or potential investors and their advisers on Exploration Targets, Exploration Results, Mineral Resources or Mineral Reserves. They include but are not limited to annual and quarterly company reports, media releases, information memoranda, technical papers, website postings and public presentations.</p>
<p><b>Oct. 2023 / June 2024</b> <b>(Clause 2.8, Page 8)</b></p>	<p>Public Reports are reports prepared to inform investors or potential investors and their professional advisers on Exploration Targets, Exploration Results, Mineral Resources or Mineral Reserves. They include but are not limited to company reports, media releases, information memoranda, technical papers, social media announcements, website postings and public presentations.</p>
<p><b>Reason for change</b></p>	<p>Wording simplified slightly to improve clarity</p>

<p><b>Nov. 2019 (Clause 3.6, Page 11)</b></p>	<p>A Competent Person is a minerals industry professional, who is a [National Reporting Organisation (NRO) to insert appropriate membership class and name of Professional Organisation (PO)] or other Recognised Professional Organisations (RPOs) with enforceable disciplinary processes including the powers to suspend or expel a member.</p> <p>A Competent Person must have a minimum of five years [or as required by local NRO] relevant experience in the style of mineralisation or type of deposit under consideration and in the activity which that person is undertaking.</p>
<p><b>Oct. 2023 / June 2024 (Clause 3.6, Page 11)</b></p>	<p>A Competent Person is a minerals industry professional, who is a [National Reporting Organisation (NRO) to insert appropriate membership class and name of Professional Organisation (PO)] or other Recognised Professional Organisations (RPOs) with enforceable disciplinary processes including the powers to suspend or expel a member.</p> <p>A Competent Person must have a minimum of five years relevant experience in the style of mineralisation or type of deposit under consideration and in the activity which that person is undertaking.</p>
<p><b>Reason for change</b></p>	<p>Removed [or as required by local NRO] to make clear that less than a minimum of five years could not be specified by a local NRO, while leaving it open for local NROs to specify more years if considered appropriate</p>

<p><b>Nov. 2019</b> <b>(Clause 4.7 Page 15)</b></p>	<p>Modifying Factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.</p>
<p><b>Oct. 2023 / June 2024</b> <b>(Clause 4.7, Page 15)</b></p>	<p>Modifying Factors are considerations used to assess and estimate Exploration Targets, Mineral Resources and/or Mineral Reserves. These include, but are not limited to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governance (ESG) and regulatory factors.</p>
<p><b>Reason for change</b></p>	<p>Wording changed to <i>'assess and estimate Exploration Targets, Mineral Resources and/or Mineral Reserves'</i> to make clear that some consideration of the Modifying Factors is required from the earliest exploration stages of a project onwards.  <i>'not restricted to'</i> changed to <i>'not limited to'</i>.          The term <i>'governmental'</i> was replaced by <i>'governance and regulatory'</i> with (ESG) being inserted as an abbreviation of <i>'environmental, social and governance (ESG)'</i>. This is to make clear to that the term Modifying Factors includes consideration of all relevant ESG aspects of a project.</p>

<p><b>Nov. 2019</b> <b>(Clause 5.1, Page 16)</b></p>	<p>An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade or quality, relates to mineralisation for which there has been insufficient exploration to estimate Mineral Resources.</p>
<p><b>Oct. 2023 / June 2024</b> <b>(Clause 5.1, Page 16)</b></p>	<p>An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as a range of tonnes and a range of grade or quality, relates to mineralisation for which there has been insufficient exploration to estimate Mineral Resources.</p>
<p><b>Reason for change</b></p>	<p>No changes made</p>



<p><b>Nov. 2019</b> <b>(Clause 6.1, Page 17)</b></p>	<p>Exploration Results include data and information generated by mineral exploration programmes that might be of use to investors, but which do not form part of a declaration of Mineral Resources or Mineral Reserves.</p>
<p><b>Oct. 2023 / June 2024</b> <b>(Clause 6.1, Page 17)</b></p>	<p>Exploration Results include data and information generated by mineral exploration programmes that might be of use to investors, but which do not form part of a declaration of Mineral Resources or Mineral Reserves.</p>
<p><b>Reason for change</b></p>	<p>No changes made</p>

<p><b>Nov. 2019</b> <b>(Clause 7.1, Page 19)</b></p>	<p>A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are subdivided, in order of increasing geological confidence into Inferred, Indicated and Measured categories.</p>
<p><b>Oct. 2023 / June 2024</b> <b>(Clause 7.1, Page 19)</b></p>	<p>A Mineral Resource is a concentration or occurrence of material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are subdivided, in order of increasing geological confidence into Inferred, Indicated and Measured categories.</p>
<p><b>Reason for change</b></p>	<p><i>‘occurrence of solid material of economic interest’</i> changed to <i>‘occurrence of material of economic interest’</i> to reflect general agreed interpretation. “Mineral brines” are included in the intended generalised meaning in Appendix 1, and “ Minerals extracted from liquid brines” are referred to in clause 2.3, so use of the adjective solid is no longer appropriate.</p> <p><i>‘reasonable prospects for eventual economic extraction’</i> changed to <i>‘reasonable prospects for economic extraction’</i>. Interpretation of the meaning of <i>‘eventual’</i> has proved difficult for some commodities and it was considered that since the terms <i>‘prospects’</i> and <i>‘eventual’</i> both refer to sometime in the future <i>‘eventual’</i> could be removed.</p>

<p><b>Nov. 2019</b> <b>(Clause 7.4, Page 20)</b></p>	<p>An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling.</p> <p>Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.</p> <p>An Inferred Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.</p>
<p><b>Oct. 2023 / June 2024</b> <b>(Clause 7.4, Page 20)</b></p>	<p>An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling.</p> <p>Geological evidence is sufficient to infer but not demonstrate geological and grade or quality continuity.</p> <p>An Inferred Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.</p>
<p><b>Reason for change</b></p>	<p><i>'to imply but not verify'</i> changed to <i>'to infer but not demonstrate'</i> to allow for a more logical progression in the three categories of Mineral Resources.</p>

<p><b>Nov. 2019 (Clause 7.8, Page 21)</b></p>	<p>An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.</p> <p>Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.</p> <p>An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.</p>
<p><b>Oct. 2023 / June 2024 (Clause 7.8, Page 21)</b></p>	<p>An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.</p> <p>Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to demonstrate geological and grade or quality continuity between points of observation.</p> <p>An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.</p>
<p><b>Reason for change</b></p>	<p><i>'sufficient to assume'</i> changed to <i>'sufficient to demonstrate'</i> to allow for a more logical progression in the three categories of Mineral Resources.</p>

<p><b>Nov. 2019</b> <b>(Clause 7.10, Page 21)</b></p>	<p>A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.</p> <p>Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.</p> <p>A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Mineral Reserve or to a Probable Mineral Reserve.</p>
<p><b>Oct. 2023 / June 2024</b> <b>(Clause 7.10, Page 21)</b></p>	<p>A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.</p> <p>Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.</p> <p>A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Mineral Reserve or to a Probable Mineral Reserve.</p>
<p><b>Reason for change</b></p>	<p>No changes made.</p>

<p><b>Nov. 2019 (Clause 8.1, Page 25)</b></p>	<p>A Mineral Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre- Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.</p> <p>The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.</p>
<p><b>Oct. 2023 / June 2024 (Clause 8.1, Page 25)</b></p>	<p>A Mineral Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre- Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.</p> <p>The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.</p> <p>Mineral Reserves can be sub-divided, in order of increasing levels of confidence, into Probable and Proved Categories.</p>
<p><b>Reason for change</b></p>	<p>Last sentence added to be consistent with the definition of a Mineral Resource.</p>

<p><b>Nov. 2019</b> <b>(in Appendix 1, page 60)</b></p>	<p>A design and financial/economic study of an existing operation in which appropriate assessments have been made of existing geological, mining, metallurgical, economic, marketing, legal, environmental, social, governmental, engineering, operational and all other Modifying Factors, which are considered in sufficient detail (to Pre-Feasibility level) to demonstrate that continued extraction is reasonably justified. Refer to Table 2 for guidance.</p>
<p><b>Oct. 2023 / June 2024</b> <b>(Clause 8.5, Page 25)</b></p>	<p>A Life of Mine Plan (LoMP) is a design and financial/economic study of an existing operation in which appropriate assessments have been made of all Modifying Factors, which are considered in sufficient detail (to a minimum of Pre-Feasibility level) to demonstrate that continued extraction is reasonably justified.</p>
<p><b>Reason for change</b></p>	<p>It was agreed that this warranted inclusion as a definition to support the declaration of Mineral Reserves on operating mines. Reworded slightly for improved clarity. The sentence “Refer to Table 2 for guidance.” was moved into the guidance for clause 8.5</p> <p>Text which had previously been included as guidance for clause 4.6, was moved to code as Clause 8.6.</p> <p>Clause 8.22 was moved to become Clause 8.8 since it is directly relevant to the use of the term LoMP.</p>

<p><b>Nov. 2019 (Clause 8.7, Page 26)</b></p>	<p>A Probable Mineral Reserve is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource.</p> <p>The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proved Mineral Reserve.</p>
<p><b>Oct. 2023 / June 2024 (Clause 8.10, Page 27)</b></p>	<p>A Probable Mineral Reserve is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource.</p> <p>The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proved Mineral Reserve.</p>
<p><b>Reason for change</b></p>	<p>No change made.</p>

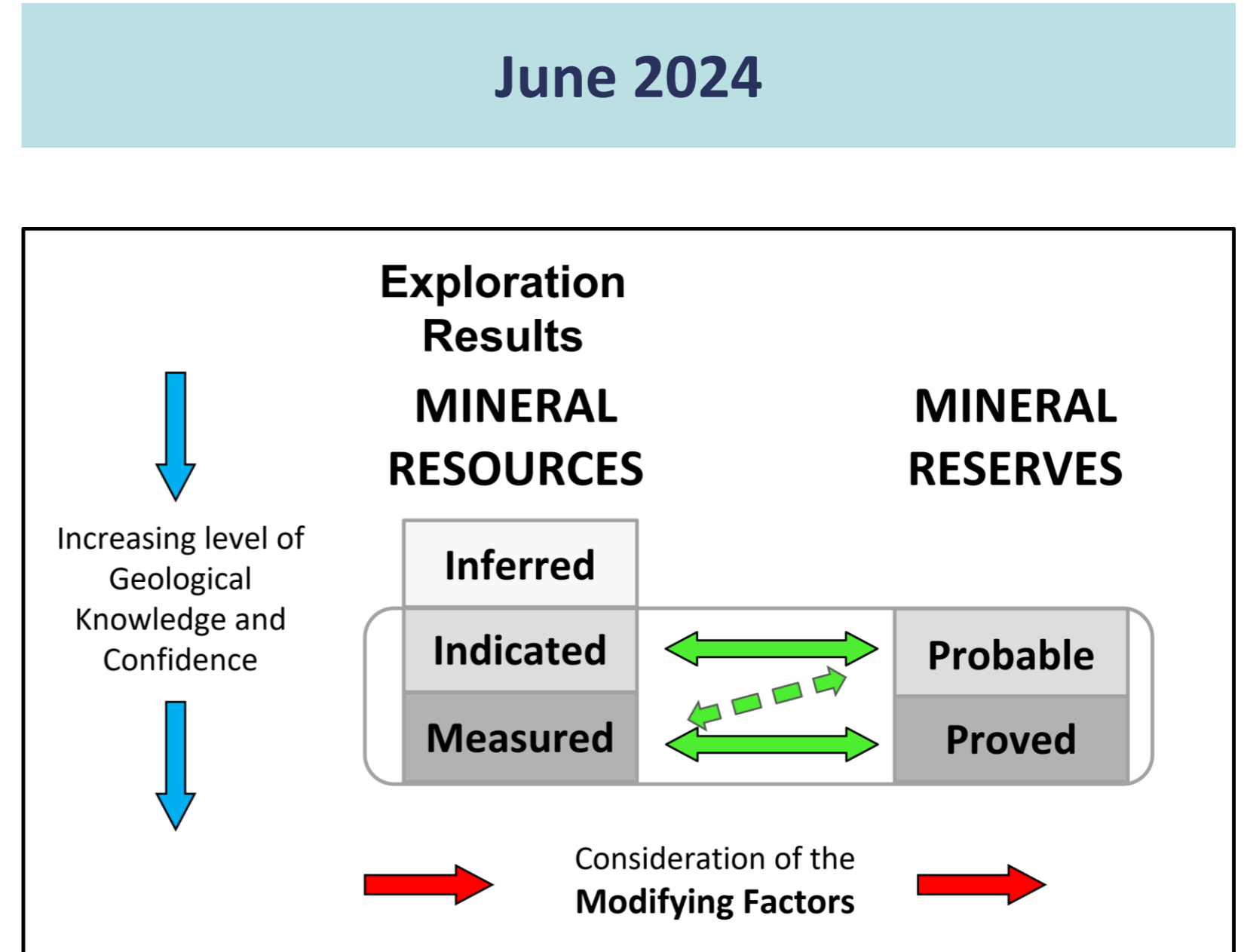
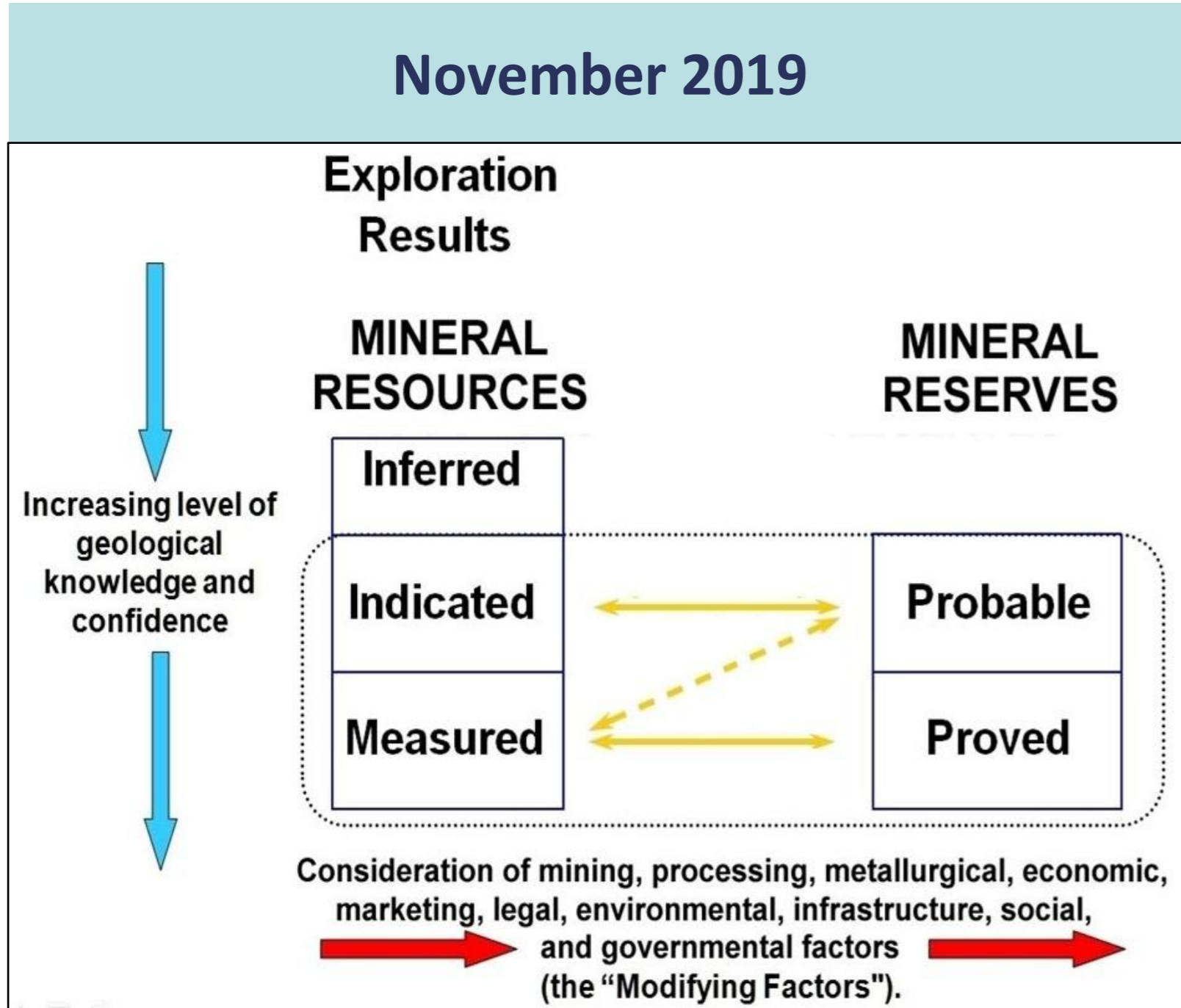


<p><b>Nov. 2019</b> <b>(Clause 8.9, Page 26)</b></p>	<p>A Proved Mineral Reserve is the economically mineable part of a Measured Mineral Resource.</p> <p>A Proved Mineral Reserve implies a high degree of confidence in the Modifying Factors.</p>
<p><b>Oct. 2023 / June 2024</b> <b>(Clause 8.12, Page 27)</b></p>	<p>A Proved Mineral Reserve is the economically mineable part of a Measured Mineral Resource.</p> <p>A Proved Mineral Reserve implies a high degree of confidence in the Modifying Factors.</p>
<p><b>Reason for change</b></p>	<p>No change made</p>

<p><b>Nov. 2019 (Clause 9.3 Page 31)</b></p>	<p>A Scoping Study is an order of magnitude technical and economic study of the potential viability of Mineral Resources that includes appropriate assessments of realistically assumed Modifying Factors together with any other relevant operational factors that are necessary to demonstrate at the time of reporting that progress to a Pre-Feasibility Study can be reasonably justified.</p>
<p><b>Oct. 2023 / June 2024 (Clause 9.3, Page 32)</b></p>	<p>A Scoping Study is an order of magnitude technical and economic study of the potential viability of Mineral Resources that includes appropriate assessments of realistically assumed Modifying Factors together with any other relevant operational factors that are necessary to demonstrate and provide justification for further investigation and technical work, and more comprehensive technical studies.</p> <p>A Scoping Study is at a lower confidence level than a Pre-Feasibility Study.</p>
<p><b>Reason for change</b></p>	<p>Wording at the end of the definition has been changed to allow for situations where scoping studies may be done to test different potential options rather than always being used to justify progression to a Pre-Feasibility Study.</p> <p>An extra sentence was added.</p>

<p><b>Nov. 2019 (Clause 9.7 Page 32)</b></p>	<p>A Pre-Feasibility Study is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where a preferred mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, is established and an effective method of mineral processing is determined.</p> <p>It includes a financial analysis based on reasonable assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resource may be converted to a Mineral Reserve at the time of reporting.</p> <p>A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.</p>
<p><b>Oct. 2023 / June 2024 (Clause 9.7, Page 33)</b></p>	<p>A Pre-Feasibility Study is a comprehensive study of a range of options for the technical and economic viability of a mineral project that has advanced to a stage where the preferred methods of extraction and beneficiation have been determined.</p> <p>It includes a financial analysis based on reasonable and demonstrated assumptions on the Modifying Factors and the evaluation of any other relevant factors which are sufficient for a Competent Person, acting reasonably, to determine if all or part of the Mineral Resource may be converted to a Mineral Reserve at the time of reporting.</p> <p>A Pre-Feasibility Study is at a lower confidence level than a Feasibility Study.</p>
<p><b>Reason for change</b></p>	<p>Wording changed to be more generalised rather than including reference to specific extraction methods. Also indicates the need to demonstrate the assumptions used in respect of the Modifying Factors.</p>

<p><b>Nov. 2019 (Clause 9.8 Page 33)</b></p>	<p>A Feasibility Study is a comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of applicable Modifying Factors together with any other relevant operational factors and detailed financial analysis that are necessary to demonstrate at the time of reporting that extraction is reasonably justified (economically mineable).</p> <p>The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study.</p>
<p><b>Oct. 2023 / June 2024 (Clause 9.8, Page 34)</b></p>	<p>A Feasibility Study is a comprehensive technical and economic study of the selected development option for a mineral project that includes appropriately detailed assessments of applicable Modifying Factors together with any other relevant operational factors and detailed financial analysis that are necessary to demonstrate at the time of reporting that economic extraction is reasonably justified.</p> <p>The results of the study may reasonably serve as the basis for a final decision by a proponent or financial institution to proceed with, or finance, the development of the project. The confidence level of the study will be higher than that of a Pre-Feasibility Study.</p>
<p><b>Reason for change</b></p>	<p>Wording at end of first sentence changed to be consistent with usage elsewhere in the Template.</p>





COMMITTEE FOR MINERAL RESERVES  
INTERNATIONAL REPORTING STANDARDS