SAMCODES SNIPPETS

SAMREC Guideline Document for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves for Industrial Minerals

(SAMREC Industrial Guidelines) January 2025

Industrial Mineral deposits can be defined in several ways, e.g. as minerals used directly by industry without extraction of metals, and as non-metallic minerals and non-energy commodities amongst other definitions. A key aspect of industrial minerals is that they behave differently from metallic and energy commodities in that the economics are coupled with specification driven quality and performance (e.g. chemical, physical or electrical), recovery to saleable product, customer approval and market access, together with in situ grade.

Examples of industrial minerals include limestone (cement, lime, aggregate, dimension stone, paint/plastic/paper filler grades), kaolin (ceramic, filler grades, refractory), graphite (refractory, spherical graphite for battery anodes), lithium minerals (glass, LiOH & Li_2CO_3), brick clay, talc (filler grades and cosmetics), magnesite (refractory and agriculture), bentonite (oil drilling, foundries, pelletizing, civil engineering, wine clarification) and many others.

A frequently quoted comment regarding industrial minerals is that "*Without a market an industrial mineral deposit is merely a geological curiosity. So simply put, no market demand = no mineral trade.*" (O'Driscoll 2006)

The SAMREC Industrial Mineral Guidelines ("IM Guidelines") supplements the 2016 SAMREC Code by providing guidance on methods to suit the market led nature of the industrial minerals sector. The IM Guidelines were drafted by a committee set under the auspices of the SSC and comprised geologists from industry as well as consultants. The IM Guidelines drew extensively from similar industrial mineral guidelines published by CIM (2023) and CRISCO (2019). It should be noted that Dimension Stone is separately discussed within the IM Guideline document.

The IM Guidelines highlight several industrial mineral specific drivers that materially influence the data required for both Exploration Results and Mineral Resources and Mineral Reserves in addition to geological confidence, i.e. product specification and sample tests that refer to the required specifications, market acceptance (i.e. customer test results), product grouping, product yield, logistics and pricing (both ex mine and delivered prices).

The importance of sampling and test methods is stressed, to determine both chemical and physical aspects of the deposit. Often the test methods are industry specific and not available in commercial laboratories. Metallurgical (process) test work results and potential customer tests, including bulk samples, are of prime importance.

Reference

O'Driscoll, M (2006) International Trade in Industrial Minerals. **Industrial Minerals and Rocks**, 7^{th} edition, pp49-60. Society for Mining, Metallurgy and Exploration, Inc., Littleton, Colorado, USA. ISBN-13: 978-0-87334-233-8.