

## METALS IMPORTANCE IN THE OLYMPICS

Last month, the world watched in awe as world-class athletes from around the world competed in the 2014 Winter Olympic Games in Sochi. This week Mine Reader offers a few interesting facts about how critical minerals played an important role in the Olympic Games:



- Ancient Greeks were limited to the use of clay, copper, bronze and iron in the first recorded Olympic Games in 776 BC. Today, however, every element in the periodic table is used in the production of a modern Olympic Games, including sporting and safety equipment, timing technology and medical devices.
- The Olympic torch was originally constructed of wood, but the torch in Sochi was made with an aluminum body supported by steel, copper and polymer fittings to withstand the volatile Russian climate. According to the 2014 Sochi Olympic organizers, nearly 14,000 torchbearers carried the Olympic torch through 84 regions of Russia.
- At Sochi 1,300 medals were issued for the Olympic Games, according to the organizers. Each gold medal contained gold and silver, each silver medal contained silver, and each bronze medal contained copper, tin and zinc.
- Computers, televisions, cell phones and other handheld electronics are an integral part of the modern-day Olympic Games. These devices contain copper, palladium, platinum, aluminum, gold, silver and other metals.
- The celebratory fireworks contain a variety of minerals to enhance their colors and displays including, copper, which turns fireworks blue in color.
- When the Olympic Games were revived from the Ancient Greeks in 1896 the first place athletes received silver medals and the second place athletes received copper medals.

Sources: Copper Development Association, <http://www.copper.org/education/c-facts/>  
U.S. Geological Survey, <http://pubs.usgs.gov/fs/2009/3031/FS2009-3031.pdf>  
American Wind Energy Association, <http://awea.files.cms-plus.com/FileDownloads/pdfs/3Q-12-Minnesota.pdf>

For more information on Twin Metals Minnesota's project, please visit [www.twin-metals.com](http://www.twin-metals.com)