

First Shots in the New Cold War

written by Christopher Ecclestone | August 9, 2023

When we were recently writing our review of the takeover battle between [Teck Resources Limited](#) (TSX: TECK.A | TSX: TECK.B | NYSE: TECK) and [Glencore PLC](#) (LSE: GLEN) a colleague said, “don’t forget to mention the Germanium” and we nearly did. It proved to be an important reminder as Germanium (Gallium) became eminently newsworthy only a few weeks later when China decided to turn off the spigots of both metals as part of the [tit-for-tat](#) over Chinese access to Western semiconductor output. The Chinese ban spurred a surge in Wikipedia and Google traffic as pundits and journalists scurried to get *au fait* with the metals. For us, it was lucky we had been so recently hot off the press with our thoughts. As for Gallium, we happened to be one of the few that also knew where a primary Gallium deposit was hiding in full sight... Though we were not telling.

In our recent review of the machinations around control of Teck, we noted Glencore’s economy of details, when it came to the metals the merged entity would produce. This became even more poignant when one delves deeper and looks at the critical metals/minerals that emanate from Teck’s facilities particularly in light of Glencore’s role as somewhat of a hunter-gatherer for China. When these metals are brought into the harsh light of day one can see reasons why the Pentagon might fire up the Bat Phone to the White House and then the White House put through a hurried call to Ottawa advising “No way, Jose”.

The chief critical metal at risk under potential Glencore control would have been Germanium. Teck controls the Western world’s supply of Germanium metal with nigh on 30% of

production. Germanium metal is used as a semiconductor in transistors and other electronic devices, in optic fiber networks, and in infrared night vision systems for military use. In recent years, consumption of Germanium military grade infrared lenses has surged and the metal also has applications in highly efficient solar panels used in space. With applications for Germanium metal in defense and Germanium tetrachloride in fiber optics cable the assault on Teck should be raising some eyebrows in defence circles, that is if they even notice.

The DoD of the US, on its own website, cited Nancy Albertson, a chemist and program manager for DLA Strategic Materials as saying “Mainland China pretty much has a chokehold on the market right now, so if it decided to either ramp up the cost or cut us off completely – and that’s not unheard of – that would be a very big issue for us” as she announced an increased effort by the US to recycle Germanium.

The US relies on imports for over 50% of its germanium needs, and nationwide consumption was about 30,000 kilograms in 2020, according to the U.S. Geological Survey. The Defence Logistics Agency program is expected to yield 2,200 to 3,000 kilograms of recycled germanium a year – nearly 10% of the nation’s annual need – for use in night-vision and thermal-sensing devices in platforms like Abrams main battle tanks, Bradley Fighting Vehicles, Apache helicopters and naval systems.

The criticality of Teck’s output was further evidenced when force majeure was declared some five years ago when one of their furnaces blew up, sending Germanium prices skyrocketing.

While a somewhat old statistic, Reuter cited U.S. Geological Survey data showing that China produced more than 70% of the 155 tonnes of total refined Germanium production in 2016. We doubt this dominance would have changed at all in recent times. As is

well-known when it comes to the morality of supplying China with critical metals, Glencore, in the view of many, has all the morals of an alley cat. Can the US allow Glencore to achieve a stranglehold on Teck's Germanium output? Is this a repeat of the US's massive own-goal in allowing the sale of Cabot Corporation's (NYSE: CBT) specialty fluids division to Sinomine (Hong Kong) Rare Metals Resources Co. Limited which gave China dominance of the Cesium market?

Chess or Chinese Roulette?

We made an initial comment to reporters that it was a strategic game of chess which prompted the more learned Chess-fans to ask what the end game might be? But upon further reflection, it seems more like a game of Russian Roulette in which the Chinese keep taking a bullet. Strategically, if the big game is seizing Taiwan then China has made a major blunder. By signaling to the West which metals that the West is vulnerable to a squeeze on supply, it thus prompts the West to take preventative action. This by its very nature means that a surprise swoop on China (accompanied by a shutdown of strategic metals supplies) is defanged as a Blitzkrieg Day plus 1 issue in the West because the West will already have girded its loins against such an eventuality. By a cumulative process of these types of predatory actions (e.g. the Rare Earth export ban to China over the Senkaku Islands dispute in 2011 and now this latest) the West has had its wake-up call and lethargically, but eventually, gotten itself out of bed.

Over and beyond losing the surprise "Gotcha" effect in the event of a Taiwan shooting war, China is facing the loss of markets for its output of these metals on a long-term basis. The metals are not unique to China, with common fly-ash from many coal-fired power plants containing Germanium and similarly, waste

flows from zinc and bauxite smelters being also sources for Gallium. China has no special advantage here. It used to be cheap but China has reached the end of "cheap"... something we predicted in an op-ed in [The Banker](#) journal as long ago as 2004.

We feel confident that China's share of both metals' global market will go spiraling down from here. They can try predatory pricing to try and regain a foothold, but that threat can also be nullified if Western end-users are more inclined to go for secure supplies, over cheap supplies. That change of mindset is the main fallout from these tit-for-tat bans and correspondingly China's main faux pas in all this.

In these two metals, in particular, they will see that the global challengers to their dominance are not tin-pot Rare Earth promotorial types as in 2011, but rather Teck, RTZ and Trafigura Beheer B.V./Nyrstar NV (amongst other potential entrants). China should have heeded the variation on the old Pottery Barn rule... you break it, you (don't) own it.