

Palladium - A True Precious Metal

As one of the platinum group metals, palladium is a silvery-white corrosion-resistant metal. Discovered in 1804 by English chemists, it maintained a very low profile even into the 1960s, when it had only low-volume uses as an industrial catalyst, as an alloy that when mixed with gold formed "white gold", in dental alloys, mirror coatings and surgical instruments.

Palladium rose from obscurity when automakers were forced to meet stringent airquality standards beginning in the 1970s. Palladium and platinum were used to develop new catalytic technologies to convert noxious exhaust pollutants such as carbon monoxide into safer compounds. Platinum outperformed palladium when used with leaded gasoline, however, with the switch to unleaded gasoline, palladium's performance matched that of platinum, and being much less expensive, palladium replaced platinum as the leading metal in autocatalysts throughout the world.

Today, with the average new car containing 4 grams of palladium per converter, some 3.8 million troy ounces are used annually in auto manufacturing. Another 3 million ounces are used in the manufacturing of cell phones and computers, while dental alloys account for another 1 million ounces. With this tremendous jump in demand, the price of palladium has increased from \$60/troy ounce in the 1970s to about \$1,030/troy ounce today, substantially higher than the value of platinum.

"Perhaps the ultimate statement of palladium's international acceptance as a true precious metal is that China, Australia and Russia have recently minted legal-tender palladium coins -- a fitting tribute to a metal that has finally emerged from platinum's shadow."

(Taken from *Mining Voice*, volume 7:1, Steve Voynick)

PDAC Mining Matters News
April 2001 – Educators' Update