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Sinomine / Tanco

Ore Sorting it All Out

ABSTRACT

Back in 2010, I was approached to try one of the newer ore-sorting technologies that could potentially help sort pollucite from other Tanco pegmatite minerals. This type of ore sorter employs a technique called Dual Energy X-ray Transmission (DEXRT). In this case, the sorter analyzed images generated by x-rays in order to help make mineral separation possible. This presentation will review the sample preparations made for an ore sorting trial in Wedel, Germany, in order to best capture characteristics of minerals to be sorted with a DEXRT technique. Products from a September 2011 ore sorting trial were closely examined providing us with a clear picture of the spectacular efficiency of DEXRT ore sorting. These results will be discussed with a combination of pictures, element determinations, and discussions. Results from these tests show that if you properly prepare for testing, today's improved processing speeds can lead you to a highly efficient separation.

BIOGRAPHY

After completing his education at Acadia University and what is now known as Daltech in Halifax well over 30 years ago, Claude made the trip out to Manitoba and became part of the furniture at the Tanco Mine back in 1988. His first 21 years at Tanco were spent as an innovative metallurgist for the spodumene and tantalum circuits. Spodumene and tantalum production ceased in 2009 due to the poor economic climate for those commodities. Claude was then rebranded as a Technical Manager. His experience gained in separating complex minerals was then put to use in assessing how to separate pollucite from other minerals. Over the last 10 years Claude has spent a lot of his time evaluating various flotation techniques for some of the major minerals in pegmatites along with studies for the use of ore sorting in pegmatites.

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