

Press Release

A New Application Report from Rigaku Describes a Method for Gold Recovery from Ore by EDXRF

Austin, TX – May 10, 2016. [Applied Rigaku Technologies, Inc.](#) has published a new application report describing the analysis of gold in used ore material by energy dispersive X-ray fluorescence (EDXRF). Rigaku EDXRF Application Note 1576 details the measurement of gold in used ore material, such as that from ore dumps and tailing piles, and demonstrates the performance of the [Rigaku NEX DE](#) EDXRF spectrometer. The report includes complete information about sample preparation, method calibration and repeatability.

Recovering gold and other valuable metals from used ore materials can be a profitable endeavor. In the processing of ores, the desired metals and other base metals are extracted, leaving mostly silicates, minerals and the other base ore materials. Gold and other precious metals can be recovered by further processing and extracting the ore material from used ore dumps or old tailing piles.

For the analysis presented in this report, measurement was carried out using the Rigaku NEX DE EDXRF analyzer, featuring a 12 W X-ray tube with 60 kV excitation source.

The unit's high-throughput Silicone Drift Detector (SDD) is capable of yielding 500,000+ cps and achieving a detection limit of 1 ppm – a 2 to 3 times improvement factor over conventional EDXRF - thereby enabling superior measurement of trace valuable metals in various used ore materials.

The results shown in the report establish that the NEX DE EDXRF analyzer offers a powerful and versatile system for quantifying elemental composition and, given matrix-matched calibration and proper sampling, can achieve excellent results for monitoring and measuring the concentration of gold and other valuable elements in the recovery of used ore materials.

A copy of this application report may be requested on the Rigaku EDXRF website:
<http://www.rigakuedxrf.com/edxrf/app-notes.html?id=1576> AppNote

About Rigaku

Since its inception in Japan in 1951, Rigaku has been at the forefront of analytical and industrial instrumentation technology. Rigaku and its subsidiaries form a global group focused on life sciences and general purpose analytical instrumentation. With hundreds of major innovations to its credit, Rigaku and its subsidiary companies are world leaders in the fields of small molecule and protein crystallography, X-ray spectrometry and diffraction, X-ray optics, as well as semiconductor metrology. Rigaku employs over 1,400 people globally and its products are in use in more than 70 countries – supporting research, development, production control and quality assurance activities. Throughout the world, Rigaku continuously promotes partnerships, dialog, and innovation within the global scientific and industrial community.

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**Rigaku NEX DE - Energy
Dispersive X-ray Fluorescence
Spectrometer**