

APPLICATIONS OF X-RAY FLUORESCENCE IN THE COPPER MINING INDUSTRY

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Copper is indispensable to civilization as we know it. Producing the large amounts needed usually requires a complex multi-step process. Other valuable metals are often found with copper and sometimes may be economically recovered during processing, by the use of additional technologies.

X-ray fluorescence is especially useful in process control because of its speed and consistency, and in some cases may also be used for determination of final product purity. To optimize the balance of competing needs for speed and quality, a variety of XRF technologies is used throughout the copper mining and production process. This presentation will describe how XRF is used in each of the main plants in a copper operation, and how improvements in XRF technology are helping to increase production efficiency.