

PHOSPHORITES AND REE

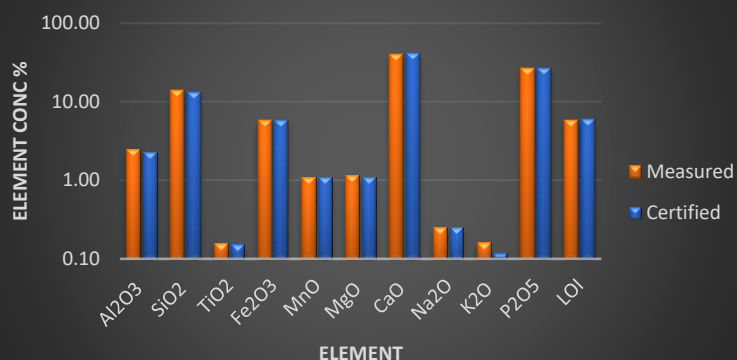
POLC-1 (phosphorite from Arkansas)

With the recent announcement that China will seek to develop Lithium-Iron-Phosphate (LFP) batteries, it is clear that interest not only in lithium but also in sources of phosphate will be under renewed focus. Phosphate extraction for chemicals and fertilizers has been undertaken on a large scale for decades, however sources of high-grade phosphate ores for the battery sector will restore interest with a potentially larger economic return. In addition, some phosphate deposits are strongly enriched in Rare Earth Elements (REEs), doubling their economic value.

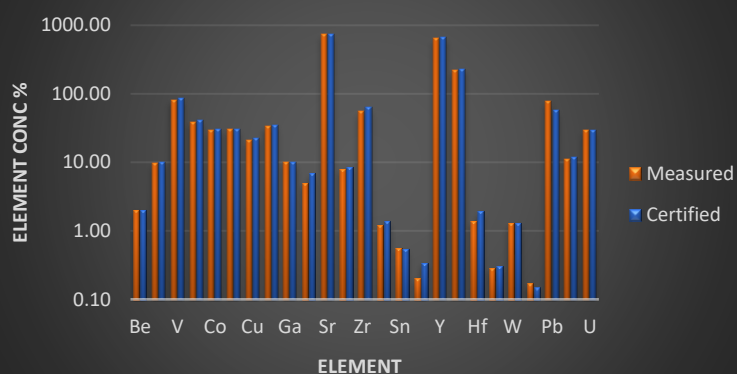
X-ray Mineral Services (XMS) Ltd has developed robust analytical techniques to characterise phosphorites using our META workflows. This includes the acquisition of c.50 major elements, trace elements and REEs using ICP together with WD-XRF and ED-XRF. The quality of our data is highlighted by the results from a recent GeoPT proficiency test for POLC-1 (Phosphorite from Arkansas). The following plots clearly illustrate a very close correlation between our 'measured' values and those of the proposed standard. In addition, XMS performed QXRD analyses to determine the mineralogy. XMS now has the capability to routinely characterise phosphate ores and to assess the REE content.



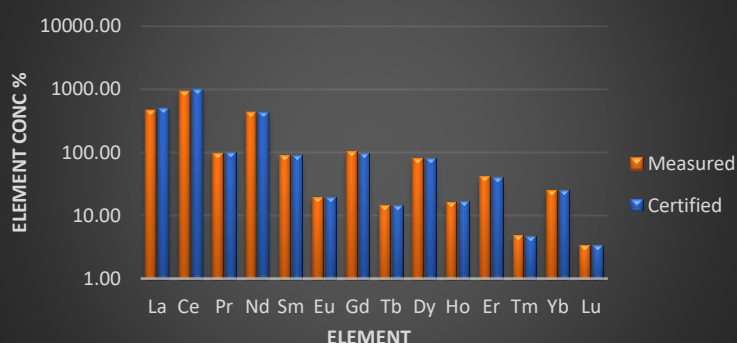
Major Elements POLC-1 - Phosphate



Trace Elements POLC-1 - Phosphate



REEs POLC-1 - Phosphate



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