

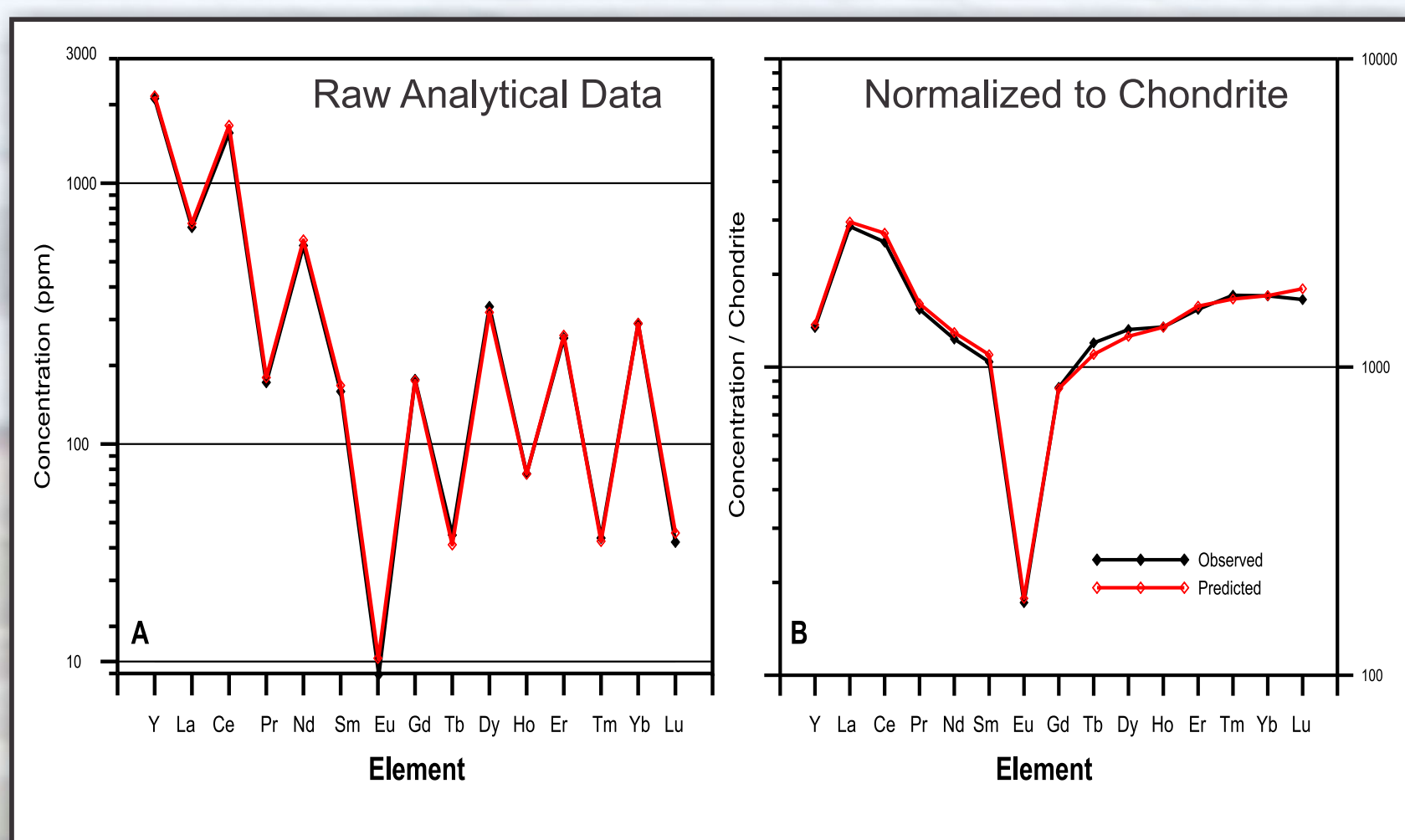
PROJECTS RELATED TO OTHER COMMODITIES (REE, Vanadium)

Andrew Kerr

The Strange Lake deposit on the Québec-Labrador border is one of the world's largest REE resources, and a new deposit in Québec is now being assessed for development. In 2013, work was completed on estimating REE resources in adjacent Labrador. Vanadium (V) is a speciality metal for which growing demand is forecast and for which there is exploration potential.



Granite with disseminated REE-bearing minerals, Strange Lake.

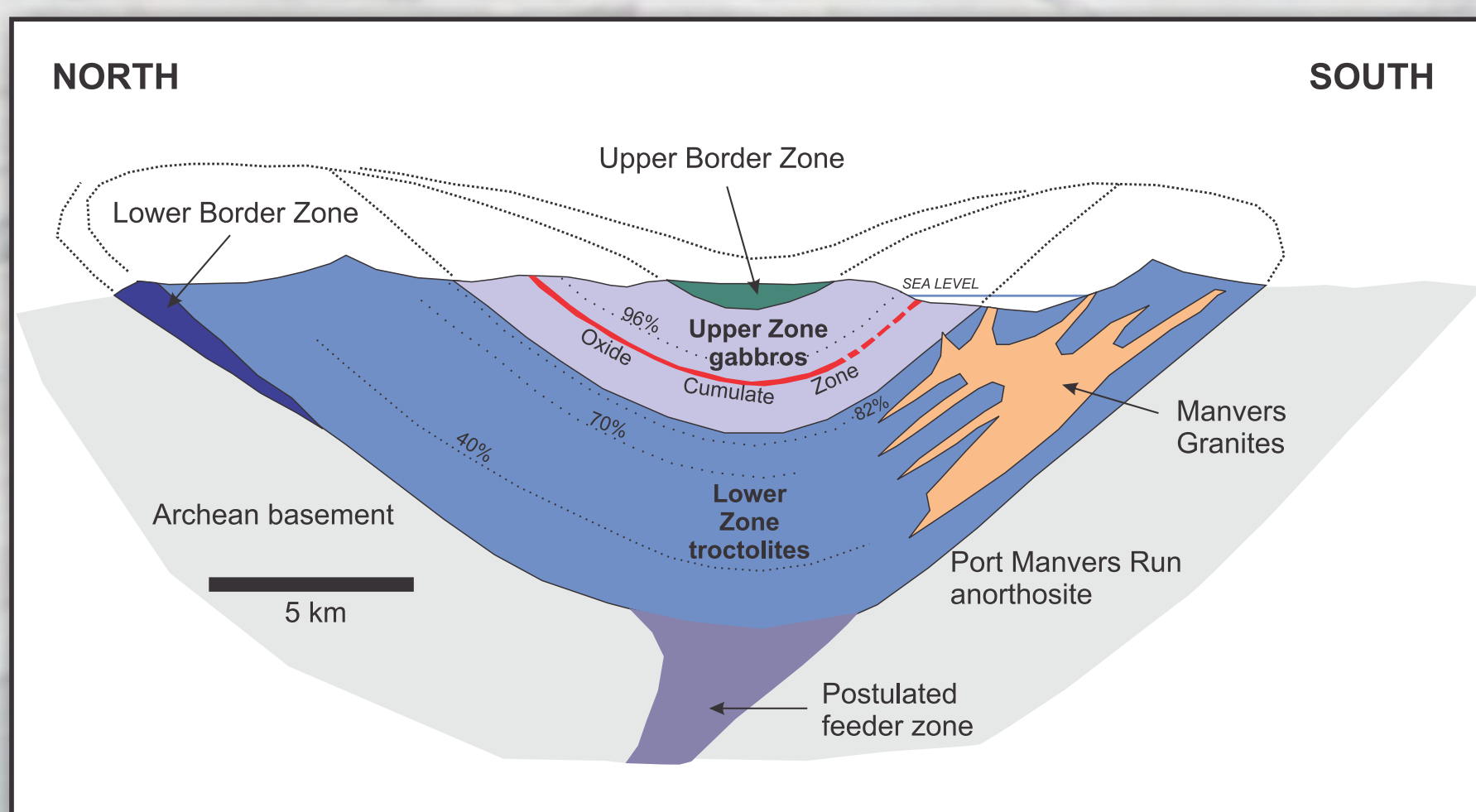


A comparison between predicted (RED) and measured (BLACK) rare-earth element (REE) patterns for the second batch of re-analysed drill core samples from the Strange Lake Main Zone deposit.

Vanadium in Newfoundland and Labrador

Vanadium (V) is a transition metal that has a wide range of applications, but is primarily used as an additive in the steel industry. Demand is forecast to grow, and there is also potential for use in the energy industry, if the V-REDOX battery attains commercial feasibility. Because much current production is a by-product from iron-ore smelting, there is interest in primary vanadium deposits.

A compilation of information on vanadium potential in Newfoundland and Labrador was initiated in 2010, and a report was published in 2013. In Labrador, a defined vanadium resource is associated with uranium mineralization in the Central Mineral Belt, and there are many indications of V-enriched magmatic oxide mineralization from early exploration, and the post-Voisey's Bay exploration rush.



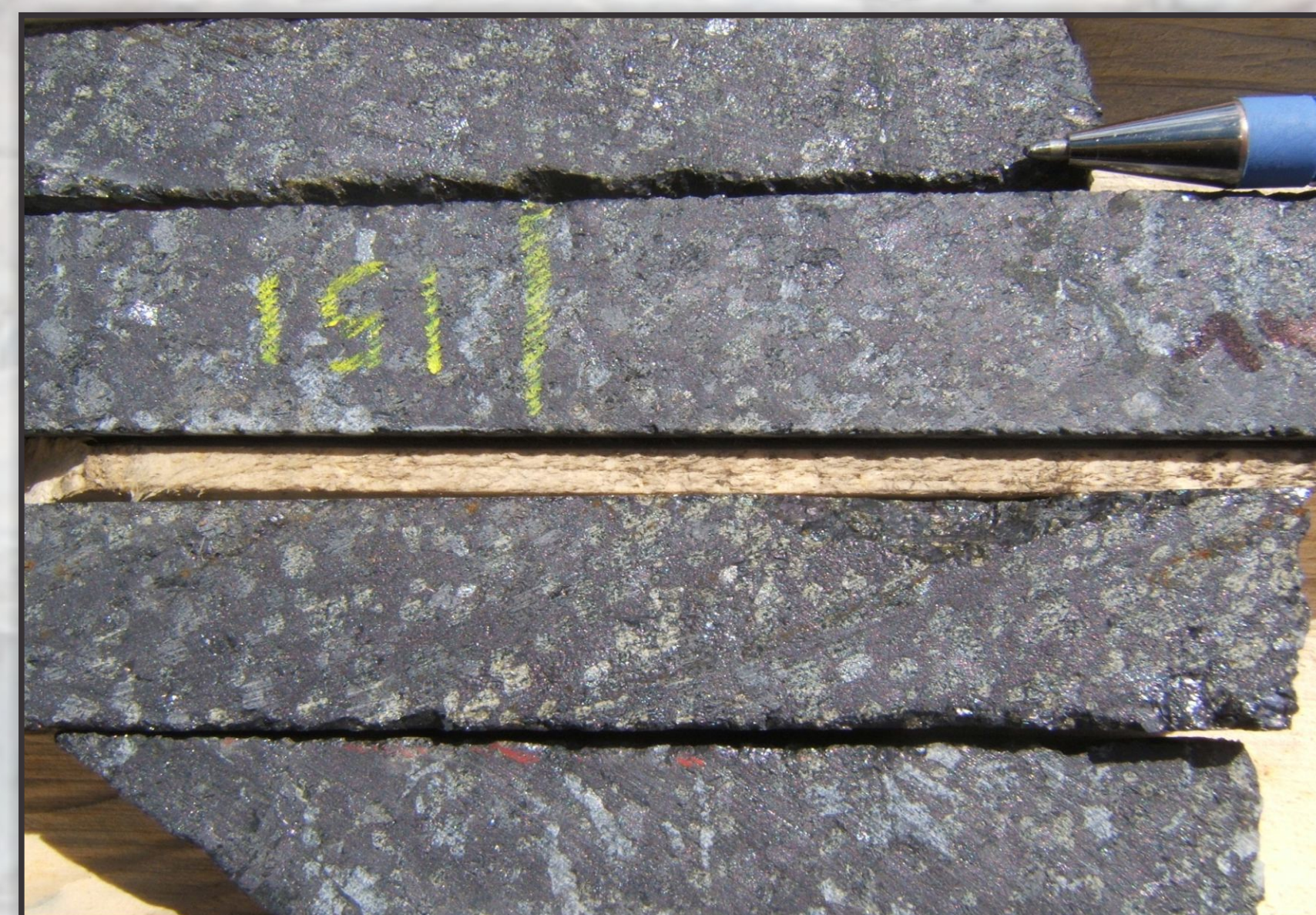
Schematic cross-section of the Kiglapait Intrusion in northern Labrador, showing the location of oxide-rich cumulates.

The REE Resource at Strange Lake

Strange Lake is one of the world's largest resources of yttrium (Y) and rare-earth elements (REE). The overall near-surface resource in Labrador was estimated in 1985 at some 57 metric tonnes of 3% ZrO₂, 0.31% Nb₂O₅, 0.08% BeO and 0.92% total REE oxides (including Y). However, REE estimates were based on limited data.

The REE behave coherently, and correlate well with elements such as Y and Be. Selective re-analysis in 2011 of drill core samples archived in Goose Bay allowed assessment of proxy methods for estimating REE abundances from other data. These methods were tested further in 2012 using data from a second batch of samples, and were found to be robust. The method was used to develop a new resource estimate for the Labrador deposit. Results indicate a resource of 66 million tonnes, at a total REE oxide grade (including Y) of about 0.82%.

The Labrador portion of the Strange Lake area is currently Exempt Mineral Land (EML) and not open to exploration. This new information will assist in making decisions about the future status of this area.



Drill core from the Kiglapait Intrusion, containing V-enriched oxide mineralization.

The Moran Lake "C-Zone" uranium deposit in Labrador contains a significant, but low-grade, vanadium resource estimated at 61 million kg of V₂O₅. This is largely hosted in altered mafic rocks, and partially coincides with uranium mineralization. However, uranium and vanadium may record discrete mineralizing processes within a single event.

Layered mafic intrusions are important sources of vanadium, and oxide-rich cumulate sequences represent important targets. Rocks of this type are known within the Kiglapait and Michikamau intrusions in Labrador. Exploration following the Voisey's Bay discovery of 1994 uncovered oxide-rich zones in many parts of Labrador.