



THE CENTRAL SCOTLAND REGIONAL GROUP OF THE GEOLOGICAL SOCIETY

Notice of event: Thursday 22nd February

The Meeting Room, Edinburgh Quaker Meeting House,
7 Victoria Terrace,
Edinburgh, EH1 2JL

6.00pm for 6.15pm

ASSESSING THE SN-W, LCT PEGMATITE AND POLYMETALLIC MINERAL POTENTIAL OF THE SAINTE MARIE AUX MINES AREA, NORTH-EAST FRANCE, USING RECONNAISSANCE STREAM SAMPLING

Benedikt Steiner

Programme Director of Exploration and Mining Geology at Camborne
School of Mines & Consultant at XPLORE GLOBAL Ltd

In the light of the recent 'lithium boom' a screening study for Sn-W and Li-Cs-Ta deposits was carried out and identified an early 1980s BRGM geochemical survey with considerable tungsten anomalies of >50ppm in the Sainte Marie aux Mines area, NE France. These anomalous areas, along with historic mining of polymetallic veins in the area, led to investigate the potential for Variscan vein-hosted Sn-W and Mesozoic-Cenozoic Cu-Pb-Zn-As-Ag-Ni veins in the granites and surrounding country rock, respectively.

A total of 144 stream sediment samples were collected in the Sainte Marie aux Mines area. pXRF and ICP-MS assays revealed previously undescribed Sn-W-LCT geochemical anomalies related to a major ENE-WSW trending fault zone and splay faults in the I-type Central Vosges Mg-K ('CVMg-K') granite near Sainte-Marie-aux-Mines. Strong fractionation trends obtained from K/Rb, Zr/Hf and Nb/Ta fractionation indices imply that the I-type granites in the central Vosges Mountains were intruded by younger crustal melts derived from granulite-facies metamorphism and crustal anatexis, potentially exploiting pre-existing structural control, and subsequently fractionated and enriched incompatible elements of economic interest.

More information on the Central Scotland Regional Group can be found on our
[webpage](#).



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Benedikt Steiner is the MSc Programme Director of Exploration and Mining Geology at the Camborne School of Mines and a consultant to the mining industry through his consultancy firm XPLORE GLOBAL Ltd.

Benedikt started his career in regional petroleum exploration in the Eastern FSU, before moving on to work on Rio Tinto Exploration's uranium & copper exploration projects in Southern Africa, developing best practice. More recently, he carried out projects in Rwanda, France, Sierra Leone and Myanmar.

Benedikt has specialist knowledge in interpreting geochemical datasets and integrating the results with other geoscientific data in order to aid exploration targeting.

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