Geochemical Atlas – Erzgebirge and Vogtland

Indium in stream sediments

Indium (In) shows a strong right skewed log distribution. The maximum value is 36 mg/kg, the minimum is below the detection limit of 0.005 mg/kg. The arithmetic average is 0.12 mg/kg, the median 0.04 mg/kg. The contrast between indium bearing areas and the barren background is sharp in spite of low absolute concentrations. Indium is slightly elevated in Neoproterozoic and Cambrian metamorphites and scarce in Ordovician to Silurian sedimentary and metasedimentary rocks. An area of roughly 3 km length with In > 1 mg/kg is situated in the central Freiberg mining district. Other areas with In > 0.4 mg/kg cover other mining regions such as the Gottesberg greisen deposit, the BiCoNi vein deposit of Johanngeorgenstadt, the skarns of the Westerzgebirge complex deposit and the Ag and Sn mining districts of the central Erzgebirge (Annaberg-Buchholz, Ehrenfriedersdorf and Marienberg-Wolkenstein). Smaller spots of similar concentration occur at the Sadisdorf district. Furthermore, large areas of In > 0.25 mg/kg surround these spots such as in the vicinity of Altenberg and the Marienberg-Wolkenstein district. Areas with In > 0.1 mg/kg are, from WSW to ENE: the fluorite-baryte mining district of Schönbrunn, the border regions SW and NE of the Niederschlag-Bärenstein district and several spots NE of the Sn deposit of Seiffen. In summary, elevated indium contents coincide mainly with polymetallic and BiCoNi vein districts and with Sn skarns. Compared with other elements, In-elevated areas correlate predominantly with Cu, Zn and Sn.

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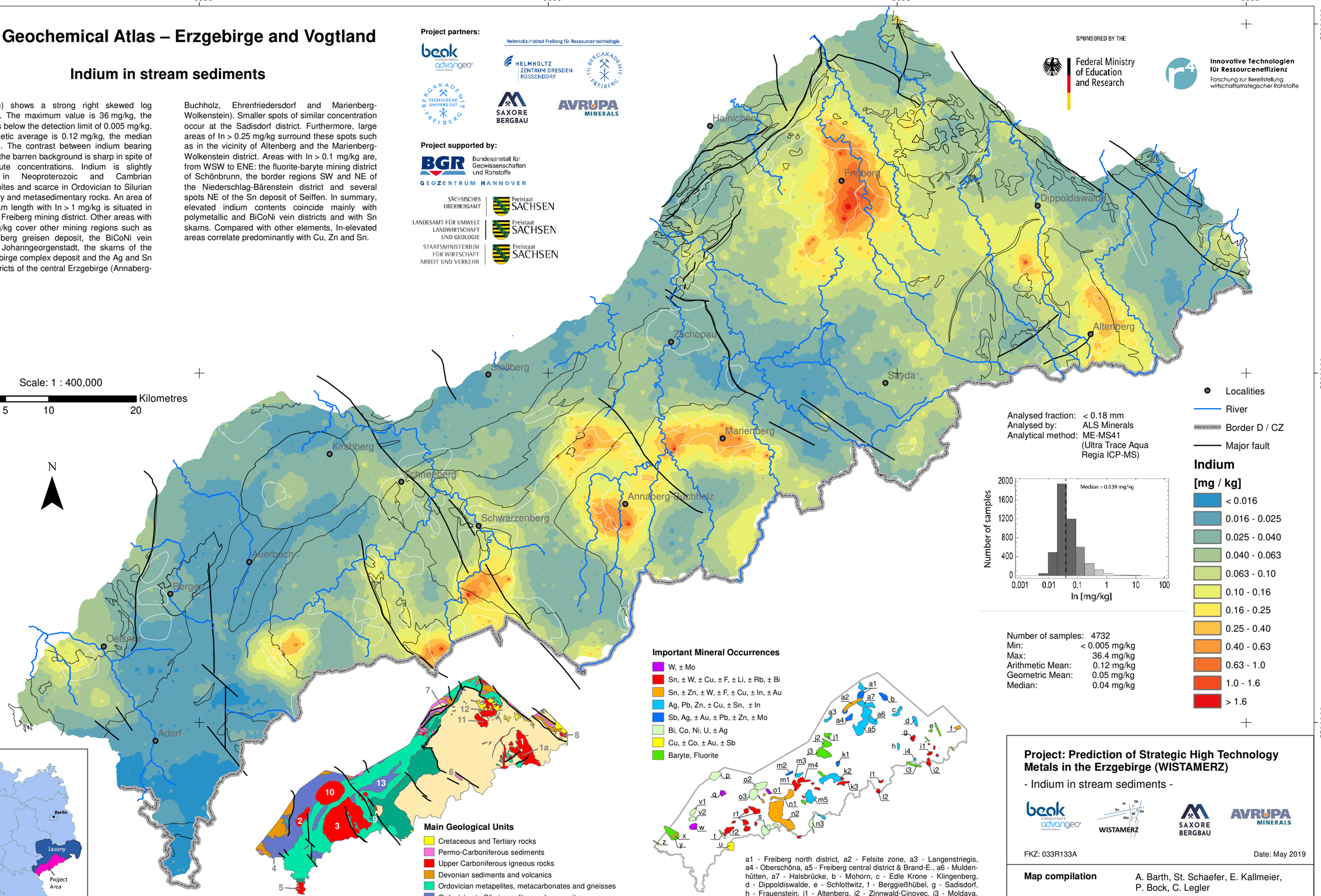

Project: Prediction of Strategic High Technology Metals in the Erzgebirge (WISTAMERZ)

- Indium in stream sediments -

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