Controls on polymetallic vein deposits and porphyry deposits in the Phum Syarung-Dok Yong Fault corridor, Ratanakiri Province, Cambodia

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Mineral exploration in highly weathered terranes requires robust and cost-effective programs to generate new exploration targets. A fundamental component of these programs is to create an exploration model that categorizes known deposits and highlights the controls on regional mineralization. In northeastern Cambodia, the Phum Syarung-Dok Yong Fault corridor is known to host a number of polymetallic vein deposits with the potential for future discoveries. However, the lack of detailed geological mapping and short exploration history limits the understanding of these deposits, impeding further exploration. New geological mapping, termite mound geochemistry, SWIR alteration mapping, rock chip geochemistry, and U-Pb LA-ICPMS geochronology on zircons will improve current geological knowledge in the area and create an exploration model that can be used to vector new mineralization sites in the corridor. Preliminary use of this new exploration model, highlights its effectiveness as it has led to the discovery of additional polymetallic veins and of Halo, a new Mo-Cu porphyry deposit.