## The Ikkari Gold Discovery, Finnish Lapland

Charlotte Seabrook, Kalle Kotiaho
Rupert Resources Ltd, Toronto, ON, Canada

The discovery of the 4 Moz Ikkari gold deposit in Finnish Lapland in 2020 was the culmination of a systematic and focused regional grassroots exploration program that took advantage of local conditions to overcome challenges that had effectively stymied previous exploration.

Thick cover sequences composed of transported glacial till that effectively masks bedrock signatures and extremely poor outcrop coupled with difficult terrain and restrictive environmental legislation presented a working environment that required a focused and effective approach.

Benefiting from good-quality regional data collected by the GTK, an initial assessment of prospectivity was compiled using existing geophysics to outline structural targets, which were refined using cheap and quick UAV (drone) magnetics. This provided a framework to design a field program that would effectively test the potential “fertility”of the identified structures. Following several geochemical orientation programs, the base of till (BoT) sampling method was selected as the only method capable of providing a high-confidence and meaningful sample. Early trialling and in-house refinement of the BoT technique yielded quality results across targeted structures which led to board support and additional funding to continue the program. Learnings from lithological and geochemical observations re-focussed sampling locations and motivated infill programs. At Ikkari, a single point anomaly of 0.7 ppm Au was drilled in Spring 2020 into sericite-altered felsic sediments and highly strained ultramafics, which contained mineralized, disseminated pyrite throughout, yielding 54 m @ 1.5 g/t Au from base of till subcrop surface (18 m deep).

Ongoing target prioritization allowed for a disciplined approach to drill targeting. Initial drill testing was purposefully limited and economic potential assessed rapidly so that weaker targets did not attract additional meters. Persistence was key, and flexible, reactive drilling schedules facilitated rapid follow up on new information and ideas, supported by a motivated and ambitious local team and adaptive contractors.