Exploration for Ni-Cu-Co sulphide deposits in northern Labrador: hype or bonanza?

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In the two years since drillhole #7 at Voisey's Bay hit 104 m of massive sulphides, northern Labrador has seen exploration activity unprecedented in its history. This effort has yet to result in a second Voisey's Bay deposit, but it has unearthed widespread and diverse sulphide mineralization of probable magmatic origin. The appeal of northern Labrador for junior exploration companies may appear to be waning, but it must be remembered that magmatic Ni-Cu sulphide deposits (despite their immense potential value) represent small and difficult exploration targets, even in areas where the geology is well-understood. This is certainly not the case in Labrador, where new discoveries are in essentially unmapped areas. It is against this background that the results of two years of mineral exploration should be judged.

This presentation outlines several of the more active exploration properties outside the immediate Voisey's Bay area. These illustrate a diversity of mineralization styles, ranging from discordant (epigenetic?) vein-like massive sulphide zones, to syngenetic sulphides in pyroxenitic and gabbroic dykes, to stratigraphic sulphide accumulations hosted by layered gabbroic intrusions. Although the initial drill results may not have been spectacular, some of these areas have clear potential for longer-term exploration programs, and many other projects were only in the early stages of exploration during 1996. Labrador is a rugged, remote area similar in size to northern Ontario, and exploration of its mineral potential is in its early stages.