

## NIKKI PROPERTY Promising porphyry copper-gold project

in Southwestern Yukon

Strong copper- and gold-in-soil geochemistry is supported by geophysics and encouraging dril results

The best copper and gold results yielded from the bottom of diamond drill holes, suggesting mineralization is open and increases with depth

The Nikki Project, wholly owned by Strategic Metals Ltd., is a porphyry copper-gold prospect located 15 km southwest of the Alaska Highay in southwestern Yukon (Figure 1). The property is underlain by Paleozoic rocks of Wrangellia, characterized by volcanic and volcaniclastic rocks of the Station Creek Formation and marine siliciclastic rocks of the Hasen Creek Formation (Figure 2). These rocks are intruded by granodiorite to quartz diorite of the Early Cretaceous Kluane Ranges Suite and intermediate to felsic, porphyritic rocks of Oligocene to Miocene age. The Kluane Ranges Suite on the property appears to be multi-phase and consists of two east-west trending tabular plutons or sills of diorite and an elongate granodiorite is noticeably more porphyritic and host numerous zones of fracture filling pyrite, chalcopyrite and their oxidized equivalents (limonite, malachite and azurite). The mineralization is associated with pervasive propylitic alteration with localized argillic zones. Mapping completed in 2010 described the presence of hydrothermal biotite and secondary magnetite in this area as well, suggesting localized potassic alteration.



*Figure 1. Tectonic assemblage map of Yukon, showing the location of the Nikki Property.* 







A northwest trending 800 by 200 m copperand gold-in-soil geochemical anomaly is found overlying the altered granodiorite (figures 3 and 5). The core of the anomaly is surrounded by a large, moderate copper soil geochemical response that is several kilometres long and up to one kilometre wide. Wide-spread overburden, permafrost and thick accumulations of volcanic ash mutes the soil geochemistry in most places, except those areas closest to bedrock. High gold-in-soil values overlap with the high copper core, but are also found sporadically throughout the property (Figure 5). Chip samples through two hand trenches dug within the area of high soil geochemical response yielded 0.38% copper with 0.364 g/t gold over six metres, and 0.47% copper and 0.194 g/t gold over eight metres.

Four diamond drill holes were drilled in 2010 and one in 2012. The strongest results were yieleded from mineralization near the bottom of the holes, suggesting highger grades are found at depth. The best intercept of both copper and gold was from Nikki-10-02, with 0.13% copper and 0.076 g/t gold over 64 m, including 0.24% copper and 0.342 g/t gold over 2.75 m.

*Figure 3. Copper-in-soil geochemistry from the Nikki property.* 



Skarn mineralization is found near the top of the ridge where limestone and calcareous mudstones are in contact with the granodiorite. A chip sample across the skarn returned values of 11.95 g/t gold with 7 g/t silver over two metres. This discovery has not been followed up.

A strong magnetic anomaly is coincident with the mapped extent of the granodiorite (Figure 7). The anomaly shows a sharp geophysical contrast to the host sedimentary and volcanic rocks. Much of the magnetic response of the intrusion is thought to be associated with magnetite, which can make up to 5% of the rock locally. An IP survey across the area shows a band of low resistivity that partially overlaps with a chargeability high. The main gold anomaly lies along the southern margin of the chargeability high.



Figure 5. Gold-in-soil geochemistry from the Nikki property.





Figure 4. First vertical derivative of the total magnetic field from the Nikki property.

The age of mineralization appears to be Early Cretaceous based upon U/Pb zircon analysis of a sample from the eastern margin of the granodioritic stock that returned an age of ca. 125 Ma; however, sulphide mineralization is found within and adjacent to feldspar porphyritic dykes that intrude through all rock types on the property. These dykes have not been dated, but they appear similar to other dykes in the area that are Oligocene in age. The granodiorite, where sampled for dating, is noticeably less altered and less porphyritic than the main mineralized zone and it is possible that the altered portion of the complex is a younger intrusive phase, perhaps related to the porphyry dykes.

Technical information in this brochure has been approved by Strategic Metals' Vice President Exploration, Jackson Morton, P.Geo., a qualified person as defined under the terms of National Instrument 43-101.



## FOR MORE INFORMATION ON THIS PROPERTY

Contact

Richard Drechsler Phone: 604-687-2522 Email: <u>rdrechsler@strategicmetalsltd.com</u>

Doug Eaton Phone: 604-688-2568