



NORTH AMERICAN NICKEL INC.
301 – 260 W. Esplanade
North Vancouver, B.C.
V7M 3G7

Tel: (604) 986-2020
Toll Free: 1-866-816-0118

NORTH AMERICAN NICKEL ANNOUNCES A 200 METRE LONG EM ANOMALY, AT 55 METRES DEPTH, OVER OFFSET DYKE AT POST CREEK, NORTH RANGE, SUDBURY BASIN, ONTARIO

Vancouver, B.C. – August 4, 2011, North American Nickel Inc. (TSXV: “NAN”; OTCbb: “WSCRFF”; CUSIP: 65704T 108). North American Nickel (“NAN”) is pleased to announce preliminary results from a deep-penetrating ground geophysical survey on their Post Creek and Halcyon properties, which has resulted in the identification of seven electromagnetic anomalies, including one corresponding with the recently discovered offset dyke on Post Creek.

President and C.O.O. Mark Fedikow states, "After our aggressive prospecting program at Post Creek, we commissioned Abitibi Geophysics to undertake a deep-penetrating ground electromagnetic survey known as “InfiniTEM” over Post Creek and part of our adjacent Halcyon property. Preliminary results are very encouraging. They provide us with seven target anomalies interpreted as near solid sulphide mineralization. We are particularly interested in the anomaly that overlies our newly discovered offset dyke, now called CJ#1, named after NAN prospector Cecil Johnson, who made the discovery. All seven targets will be tested in our drill program planned for September.”

Post Creek InfiniTEM Geophysical Survey

The InfiniTEM survey at Post Creek was run over a grid oriented to intersect the trend of the Whistle Offset Structure approximately at right angles. Lines were 100 m apart and a total of 35 km of grid were surveyed.

Preliminary results indicate the presence of seven electromagnetic anomalies at Post Creek. Anomaly EM01 is the most compelling. This anomaly corresponds with the recently discovered offset dyke, now referred to as the CJ#1, or the Cecil Johnson Offset Dyke.

EM01 is 200 m long, exhibits a northeast “kink” or bend at its northern end, and has been interpreted as the electromagnetic signature of “near-massive to massive sulphide” by Abitibi Geophysics. The anomaly is interpreted to be approximately 55 m below surface and the trend of the anomaly corresponds, in part, to both the CJ#1 dyke and the Whistle Offset Structure to the south. Additional electromagnetic anomalies EM05, EM06 and EM07 are also present on the Post Creek property and anomalies EM02, EM03 and EM04 defined on the southwest corner of the Halcyon property. Each of these anomalies has been interpreted by Abitibi as being associated with near solid sulphide and will be drill-tested by NAN.

Figures 1 and 2 illustrate the relationships between historic exploration results and the new exploration data for the CJ#1 dyke area.

Figure 1 Location and compilation map showing the CJ#1 QD offset discovery area and 2011 InfiniTEM electromagnetic anomalies.

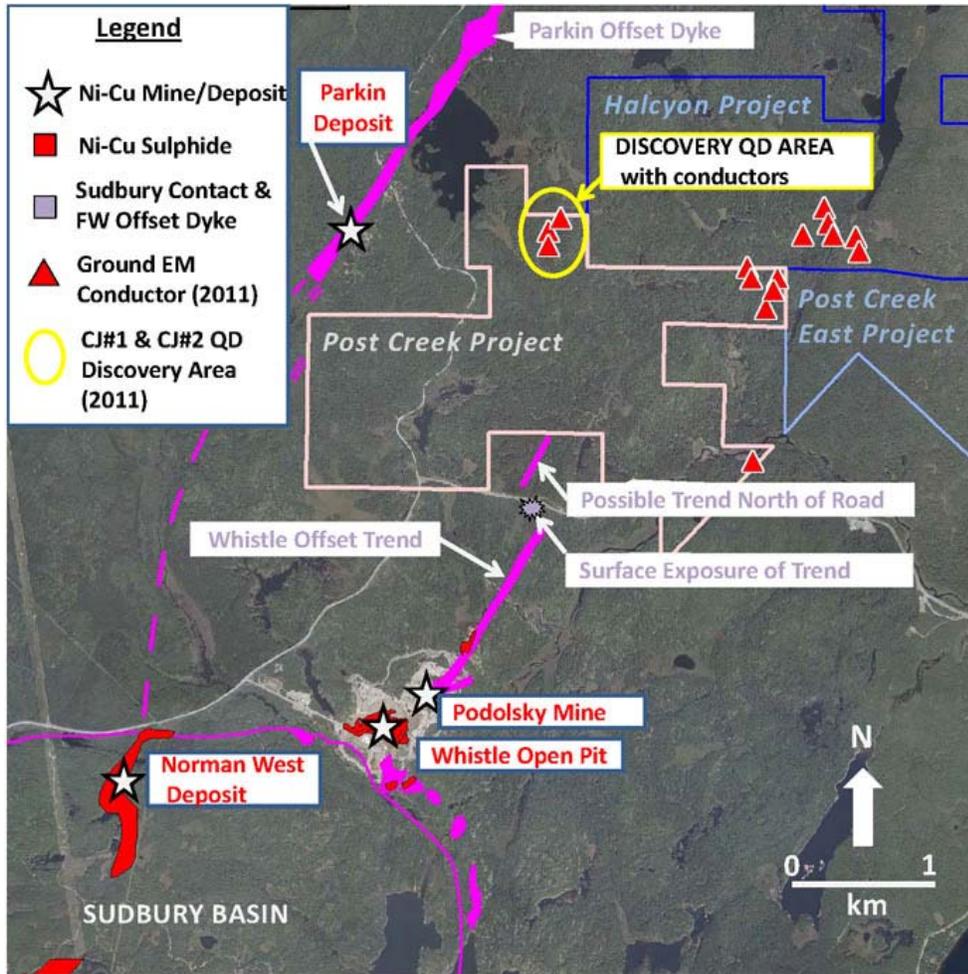
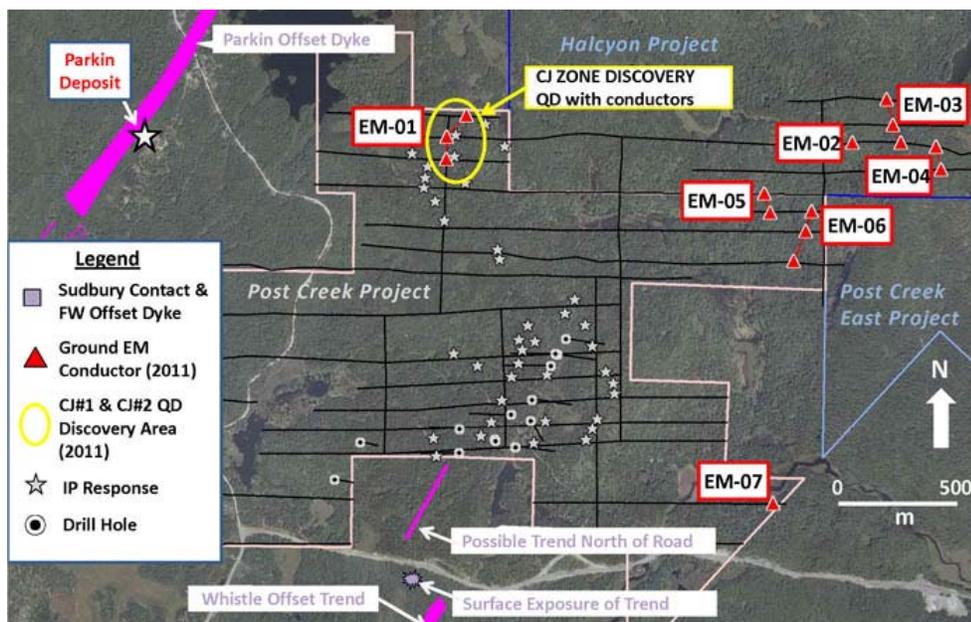


Figure 2. Summary of drill holes, IP responses, InfiniTEM conductors and the CJ#1 QD offset dyke discovery area.



Significant amounts of copper-nickel-PGM ore have been mined from offset dykes in the Sudbury mining camp, including Vale's Totten and Copper Cliff North and South mines and Quadra FNX's recent Victoria discovery and the Podolsky Mine. Mineralization within offset dykes often forms near solid accumulations of highly conductive sulphides. This style of deposit is ideal for the application of electromagnetic geophysical techniques such as InfiniTEM.

Qualified Person

All technical information in this release has been reviewed by Dr. Mark Fedikow, P.Geo., who is the Qualified Person for the Company and President and Chief Operating Officer, North American Nickel Inc.

About North American Nickel

North American Nickel is a mineral exploration company with properties in the Sudbury, Ontario and Thompson, Manitoba mining camps. The Company's initial focus is on two Sudbury, Ontario properties. The Post Creek property is strategically located adjacent to the producing Podolsky copper-nickel-platinum group metal deposit of Quadra FNX Mining. The property lies along the extension of the Whistle Offset dyke structure, which is a major geological control for Ni-Cu-PGM mineralization. The Bell Lake property is a 256-acre property that covers approximately one kilometre of the Mystery Offset dyke or MOD. The MOD is interpreted to be an extension of the Worthington Offset dyke which is a 10 to 11 kilometre-long mineralized structure that extends from the southwest margin of the Sudbury igneous complex. The Company also has option to acquire 100% ownership in the Woods Creek and Halcyon properties in the Sudbury area; and has acquired 100% ownership in the high-grade Ni-Cu-PGE South Bay property near Thompson, Manitoba and the large grassroots Thompson North and Cedar Lake properties, which are part of the world-class Thompson Nickel Belt in Manitoba. North American Nickel Inc. is a member of the North Shore Mining Group.

Statements about the Company's future expectations and all other statements in this press release other than historical facts are "forward looking statements" within the meaning of Section 27A of the *Securities Act of 1933*, Section 21E of the *Securities Exchange Act of 1934* and as that term defined in the *Private Litigation Reform Act of 1995*. The Company intends that such forward-looking statements be subject to the safe harbours created thereby. Since these statements involve risks and uncertainties and are subject to change at any time, the Company's actual results may differ materially from the expected results.

For more information contact:

North American Nickel Inc.
Rick Mark
CEO and Chair
604-986-2020
Toll free: 1-866-816-0118

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