



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

Tel: (604) 986-2020
Toll Free: 1-866-816-0118
www.northamericannickel.com

North American Nickel Initiates Exploration on its Bell Lake Offset Dyke Property, Southwest Sudbury Basin

Vancouver, B.C. – August 22, 2011, North American Nickel Inc. (TSXV: “NAN”; OTCbb: “WSCRFF”; CUSIP: 65704T 108). North American Nickel (“NAN”) has commenced exploration on the extensively mineralized Bell Lake quartz diorite offset dyke. The property is located on the southwest corner of the Sudbury Intrusive Complex close to the town of Nairn Centre, about 50 km from Sudbury. Access to the property is excellent via the Trans-Canada Highway and a system of gravel roads.

President and C.O.O. Mark Fedikow states, "The Bell Lake Offset dyke is situated along the prolifically mineralized Worthington Offset and its location on the Offset was a significant factor in acquiring the property. Building on our historic database from the Bell Lake property has allowed North American Nickel to plan for geophysical and diamond drilling approaches to exploration on this dyke. The fact that the dyke is exposed at surface and is extensively mineralized with disseminated and near-solid sulphide mineralization carrying significant nickel, copper and total precious metal values provides us with an immediate advantage to assess the economic feasibility of this property."

The Bell Lake Property

Bell Lake is a 256 acre property that covers approximately 1 km of the Worthington Offset dyke, a 10-11 km long structure that extends from the southwest margin of the Sudbury Igneous Complex. The prolifically mineralized Worthington Offset Dyke continues into North American Nickel's Bell Lake property where previous exploration during the early 2000's has documented nickel-copper-cobalt-platinum-palladium mineralization in association with the extension of the Dyke. Disseminated to near-solid sulphide mineralization is exposed at surface on the property in association with an inclusion-bearing quartz diorite which is the typical rock type present in the Offset Dyke environment although mineralization is also present in Nipissing diabase on the property, demonstrating base and precious metal mineralizing processes are not restricted to the Offset Dyke. The Worthington Offset Dyke hosts the past producing Victoria Mine (1.5 million tons of 2.2% copper, 1.5% nickel and 2.3 g/t total precious metals) and Vale's Totten Mine development (10.1 million tons at 1.5% nickel, 2% copper and 4.8 g/t platinum group metals) as well as numerous other mineralized nickel-copper-PGM-bearing zones.

Historic Exploration

The Bell Lake property had no record of significant exploration activity including diamond drilling until 2001, when geological and geophysical surface investigations were undertaken. Dr. Walter V. Peredery undertook field and thin section studies and confirmed that the Bell Lake dyke was in fact a Sudbury offset dyke. Historic data compilation indicates the Bell Lake Offset dyke has a known strike length of 1.1 km and has been sporadically drill-tested (Figure 1). There are significant portions of the dyke that have not been explored; however, these areas will be drill-tested by NAN subsequent to EM or RIM geophysical surveys.

A total of 17 holes with maximum depth of 583 m were drilled on the property. These holes intersected mineralized zones up to 2.5 m wide grading up to 1.26% nickel, 0.45% copper, and 13.43 g/t combined

platinum group metals plus gold. Surface channel sampling tested mineralized zones at surface and values of up to 1.92% nickel, 1.01% copper, 0.165% cobalt, 0.909 g/t palladium and 0.99 g/t platinum over widths of up to 5.0 m were documented. Of additional interest on the Bell Lake property is the occurrence of mineralized Nipissing diabase with metal tenors similar to that of the Worthington Offset Dyke. Chip samples grading up to 3.07% copper, 1.50% nickel, 0.126% cobalt, 0.39 g/t platinum and 1.34 g/t palladium have been documented.

Figure 1. Historic drilling on the Bell Lake Offset dyke and location and results of assays (Table 1).

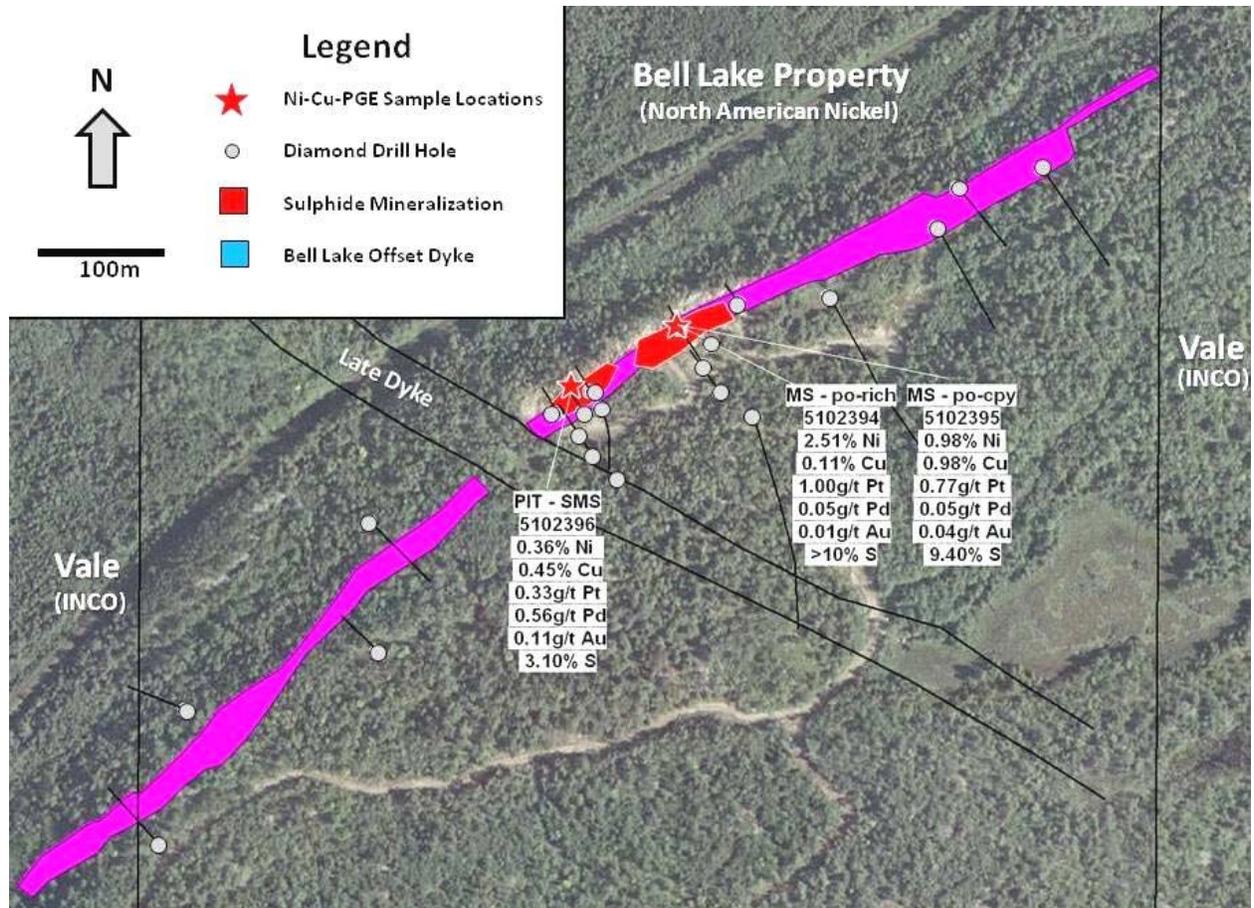


Figure 2. Extensive disseminated and near solid nickel-copper-PGM mineralization exposed at surface in the Bell Lake Offset dyke.



Representative Chip Sample Assay Results

A representative suite of chip samples from three areas within the Bell Lake Offset mineralization were collected by NAN staff during a recent field review of the property. Table 1 summarizes the data for relevant metals and indicates the high-grade nickel-copper-PGM mineralization present within the surface exposures of the dyke. Sample locations are given in Figure 1.

Table 1. Assay Results From Recent Representative Chip Samples of Mineralized Bell Lake QD Offset Dyke							
Method	Sample Description	Ni (%)	Cu (%)	Pt (g/t)	Pd (g/t)	Au (g/t)	S (%)
SAMPLE							
5102394	near solid sulphide	2.51	0.11	1.00	0.05	0.01	>10%
5102395	near solid sulphide	0.98	0.98	0.77	0.05	0.04	9.40
5102396	disseminated sulphide	0.36	0.45	0.33	0.56	0.11	3.10

Nickel, copper and sulphur analyses were undertaken at ALS-Chemex, an ISO-Certified laboratory. Analyses (ME ICP-61a) were done by ICP-AES analysis subsequent to a four acid digest. The sample is digested in a mixture of nitric, perchloric and hydrofluoric acids. Perchloric acid is added to assist oxidation of the sample and to reduce the possibility of mechanical loss of sample as the solution is evaporated to moist salts.

Gold, platinum and palladium were analyzed at ALS-Chemex (PGM-ICP24) on a 50 gram sample based on fire assay and an ICP-AES finish.

Future Exploration

North American Nickel believes the exploration potential on the Bell Lake property is exceptional and plans geological, geophysical and diamond drill programs to assess this highly mineralized environment.

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, located off the SW corner of the SIC, 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 also controls a 4,841 square km Mineral Exploration Licence in southwest Greenland with exclusive mineral exploration rights. The principal target is high-grade nickel-copper occurrences associated with norite and other mafic and ultramafic intrusions. 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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