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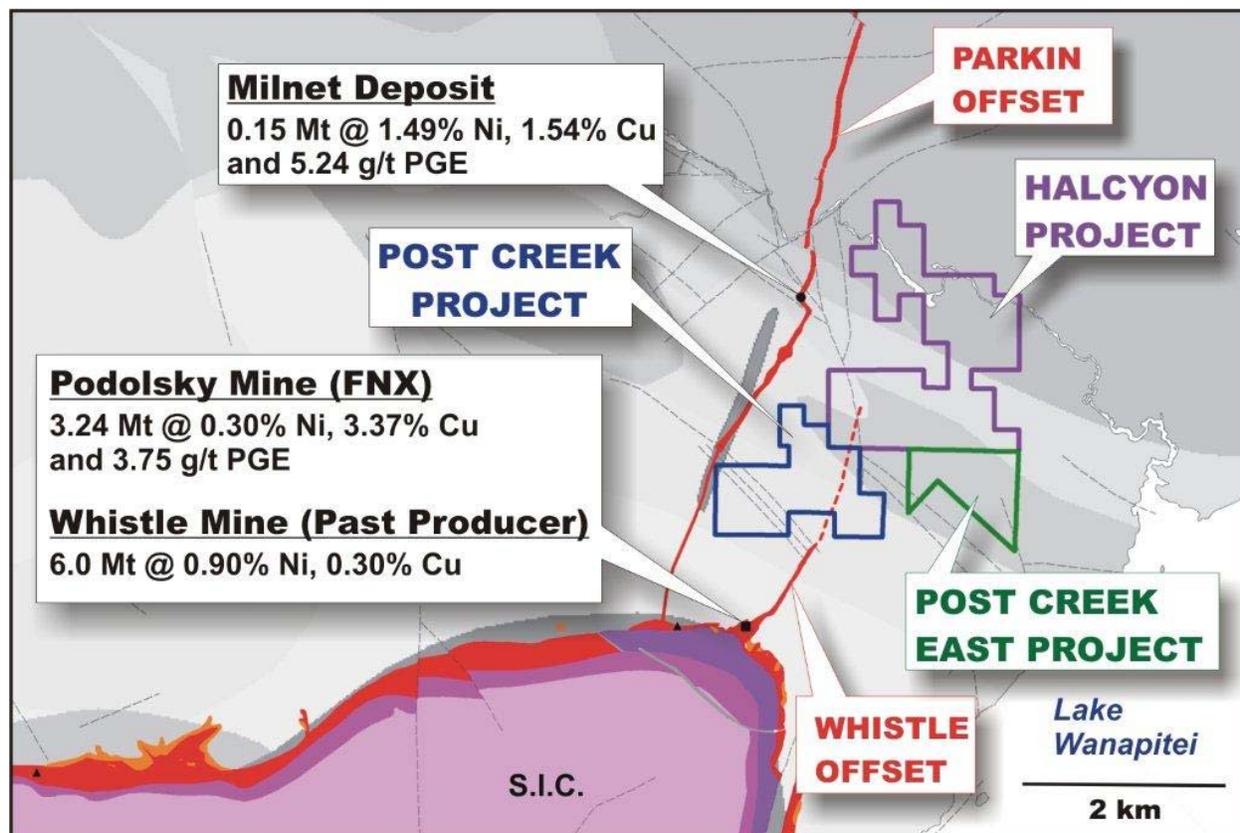
North American Nickel Inc. defines shallow targets on its Post Creek Property, North Range, Sudbury Basin, Ontario

Vancouver, B.C. – June 9, 2011, North American Nickel Inc. (TSXV: “NAN”; OTCbb: “WSCRFF”; CUSIP: 65704T 108).

Introduction

The Post Creek property is North American Nickel's flagship property in Sudbury, Ontario and consists of 35 contiguous unpatented mining claims and one isolated claim for a total area of 688 hectares.

It is located along the extension of the Whistle Offset Dyke Structure, a major geological control for Ni-Cu-PGM mineralization in this area of the Sudbury Basin. The claims begin less than 2 km from the producing copper-nickel-platinum group metals Podolsky mine owned by Quadra FNX Mining. The Whistle Offset Structure also hosts the Podolsky North copper-precious metal deposit and is closely associated with Vale's past-producing Whistle copper-nickel-PGM mine (5.7 million tons grading 0.33% Cu, 0.95% Ni and 3.77 g/t (0.11 ounces per ton) total platinum metals “TPM”).



North American Nickel has also optioned the Halcyon claim block which lies adjacent to the north east of Post Creek and is also on trend with the projection of the Whistle Offset Structure.

Determining shallow targets for drilling

North American Nickel has conducted geophysical and geological surveys on the property since its acquisition in late 2009. The results were compiled and interpreted to form the basis of a qualifying NI 43-101 report written by Dr. Walter Peredery (http://northamericannickel.com/Theme/NAN/files/Final_43-101_on_Post_Creek_from_Sedar.pdf). North American Nickel has been conducting extensive ground geophysical surveys at Post Creek using a Beep Mat accompanied by mechanical excavator cleaning of anomalous sites, outcrop washing and chip and channel sampling of exposed mineralized sites. The use of a Beep Mat, a shallow-penetrating electromagnetic and magnetic surveying instrument, is ideally suited to Post Creek because of the thin overburden covering the rock. The overburden is easily stripped off (trenched) when an anomaly is located and the exposed mineralization is then sampled. This allows rapid, effective and inexpensive sampling of the shallowly covered rock.

The Beep Mat surveys were applied to the entire property with particular focus on the Whistle Offset Structure extension. Results include a series of high-grade assays received from rock samples collected beneath Beep Mat anomalies along the Whistle Offset Structure. The assay results were reported in a January 10, 2011 news release and include up to 15% copper, 29 g/t gold and 18.7 g/t Ag. (<http://northamericannickel.com/News/Press-Releases/Press-Release-Details/2011/NANJan112011/default.aspx>)

The now defined shallow target areas are described in figure 2 and the table below.

Determining deep targets for drilling

Abitibi Geophysics is now conducting a deep-looking ground geophysical survey on Post Creek as announced June 2, 2011 (<http://northamericannickel.com/News/Press-Releases/Press-Release-Details/2011/North-American-Nickel-Inc-Initiates-InfiniTEM-Deep-Looking-Ground-Geophysical-Survey-on-its-Post-Creek-Property-North-Range-S/default.aspx>). This survey will assess the anomalous portions of the Post Creek property below 100 metres for mineralized targets that surface exploration was unable to detect. The survey will cover all the target areas described in figure 2 and the table below.

Post Creek target areas

The exploration targets delineated to date are summarized in the table below and presented in Figure 2. The target areas table differentiates between targets related to the Whistle Offset Dyke and targets in volcanic rocks that appear to be base metal massive sulphide-type mineralization or VMS-type mineralizing systems. North American Nickel will drill test shallow (<100 m) and deeper (>100m to 400 m) targets this summer.

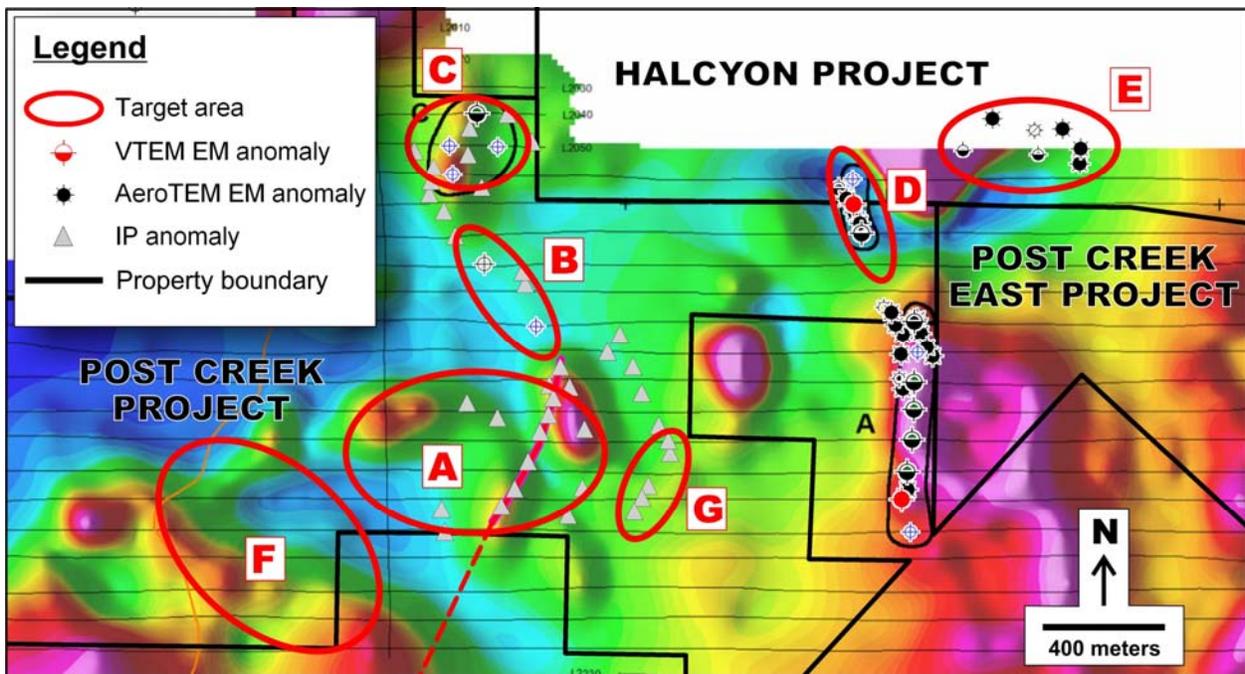
TARGET AREAS TABLE

Summary of exploration drill targets above 100 m, Post creek property. See Figure 2 for target locations.

Target	Association	Characteristics
A	Whistle Offset	Strong resistivity/chargeability features; disseminated chalcopyrite in historic drill holes.
B	VMS-Type System	Isolated chargeability feature; no drilling.
C	Whistle Offset	Linear northeast-trending airborne VYTEM anomaly with coincident magnetics; also chargeability/resistivity features; no drilling.

D	VMS-Type System	Short strike length airborne VTEM anomaly with magnetic low; no historic drilling.
E	VMS-Type System	Target shared between Post Creek and halcyon properties; multiple airborne EM anomalies; some un-tested.
F	Whistle Offset	Conceptual historic target; possible concentric offset dyke; very little information
G	Sediment-hosted Copper	Northwest-trending IP anomaly; no drilling; disseminated chalcopyrite-pyrite; "Copper Mountain"

Figure 2. Post Creek drill targets based on integrated geology, geophysics and geochemistry.



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.

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