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North American Nickel Selects Areas for Helicopter Electromagnetic and Magnetic Surveys on its Maniitsoq Project, Southwest Greenland; Signs Contract with SkyTEM

Vancouver, B.C. – September 12, 2011, North American Nickel Inc. (TSXV: "NAN"; OTCbb: "WSCRF"; CUSIP: 65704T 108). North American Nickel ("NAN") is pleased to announce that, based on the results of compilation work, including a re-interpretation of historical airborne geophysical data and a recently completed field program, it has selected two areas for helicopter, time domain electromagnetic (TEM) and magnetic surveys.

Locations of the two areas, referred to as blocks 1 and 2, are shown in **Figure 1**. They cover a total area of approximately 360 km^2 and will involve approximately 2,000 line-kilometres of surveying. Flight line spacing will range from 100 to 200 metres.

NAN has signed a contract with SkyTEM Surveys ApS to do the helicopter TEM surveying, which is scheduled to begin in mid September. SkyTEM is a Danish company with experience in Greenland and expertise in the execution and interpretation of helicopter TEM and magnetic surveys.

Purpose of the Survey

The purpose of this work is to locate targets for drilling. As described in a NAN news release dated August 15, 2011, the Maniitsoq property hosts numerous high-grade nickel-copper sulphide occurrences associated with noritic intrusions. A large portion of the project area was covered by a fixed wing GeoTEM survey in 1995, but very few EM anomalies were detected and no follow-up drilling was done. NAN believes that a modern helicopter TEM system is much better suited to locating anomalies associated with irregularly shaped nickel-copper sulphide bodies in the rugged terrain that characterizes the Maniitsoq project. The 1995 fixed wing GeoTEM system was often forced to fly at a low angle to strike and well above mandated ground clearance whereas a helicopter system will be able to hug the terrain and survey perpendicular to strike. Also, the signal to noise ratio of the helicopter system will be significantly lower, which will aid in the detection of irregularly shaped sulphide bodies.

Block 1 and 2 Survey Areas

Block 1 covers 346 km^2. It includes the largest noritic intrusions and most significant nickel occurrences in the project area (**Figure 2**). A re-interpretation of historical aeromagnetic data has shown that in this part of the project area the noritic intrusions have a significant component of remnant magnetism giving them a very distinctive magnetic signature. Mapping out this signature suggests that there may be significantly more noritic rock and associated nickel-copper mineralization than is exposed on surface.

Block 2 is centred on a northeast-striking, noritic intrusion known as Pingo that is exposed over a strike length of more than 4 km (**Figure 3**). Rusty zones ranging from <1 m^2 to over 100 m^2 occur throughout the exposed norite and typically contain trace to several percent pyrrhotite and trace chalcopyrite. A short (61.88 m) hole was drilled near the centre of the exposure in 1970 and intersected a 4.16 m interval of weak sulphide mineralization averaging 0.58% Ni and 0.24% Cu. This is the only recorded drilling on the intrusion.

Survey Terrain

The terrain in the Pingo area is extremely rugged and the 1995 GeoTEM survey was forced to fly with a ground clearance over 100 m above the mandated 125 m clearance, severely hindering the ability of the system to see prospective EM anomalies. No EM anomalies were picked in the original interpretation of the data, but NAN's re-interpretation has revealed three high priority EM anomalies forming a line that intersects the south edge of the Pingo norite. These anomalies are at the noise threshold and, accordingly, it becomes difficult to differentiate anomalous from background responses. A helicopter survey is required to properly evaluate them and determine if there are other conductors associated with the Pingo norite.

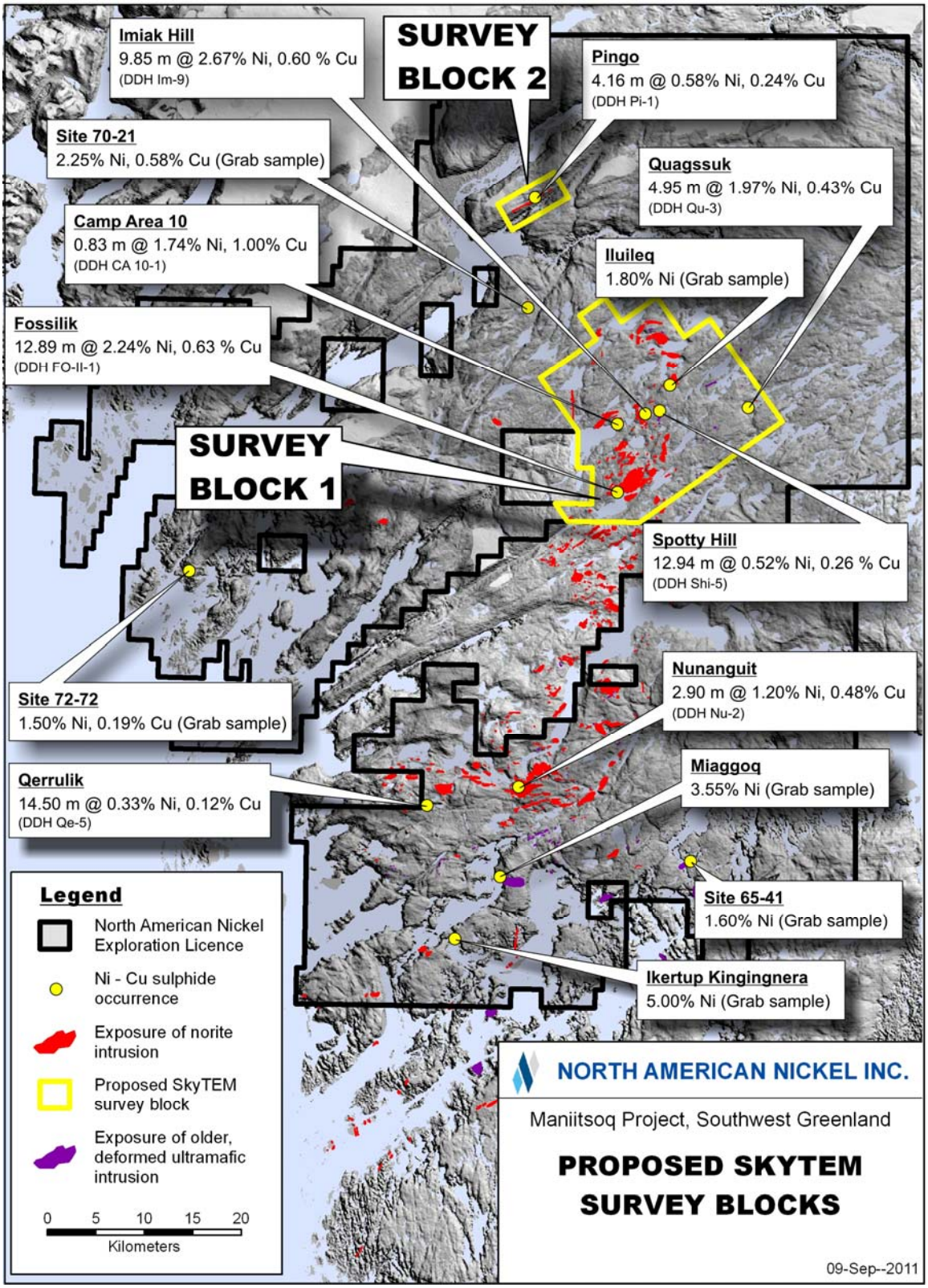

Figure 1: Location of the two blocks selected for helicopter TEM surveying.

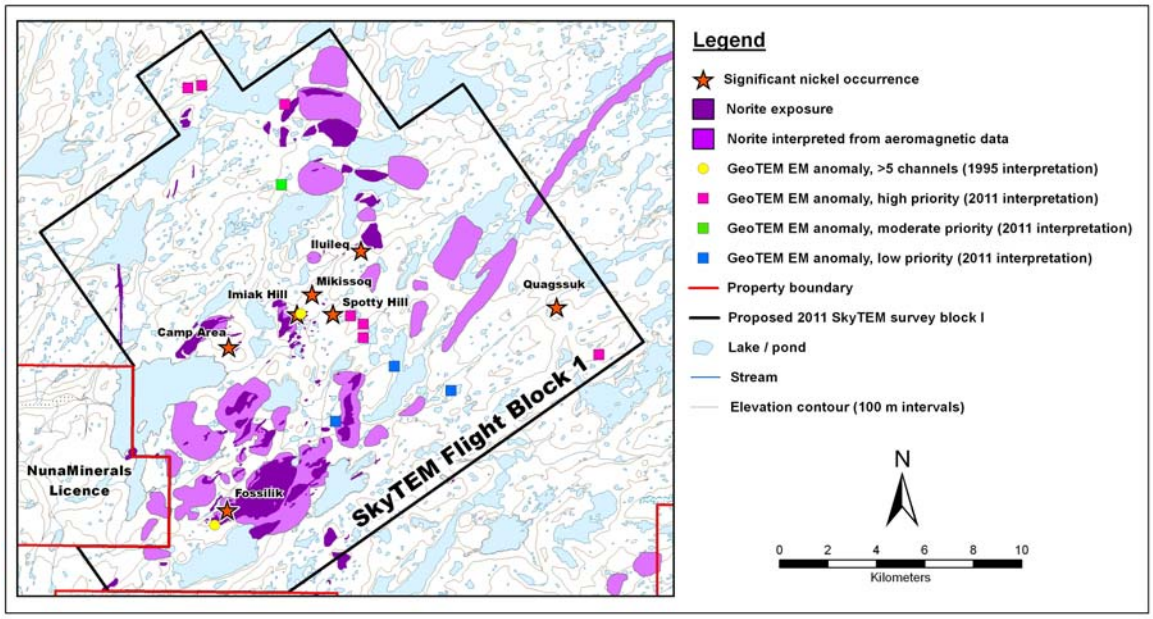

Figure 2: Map showing location of helicopter TEM survey block 1.

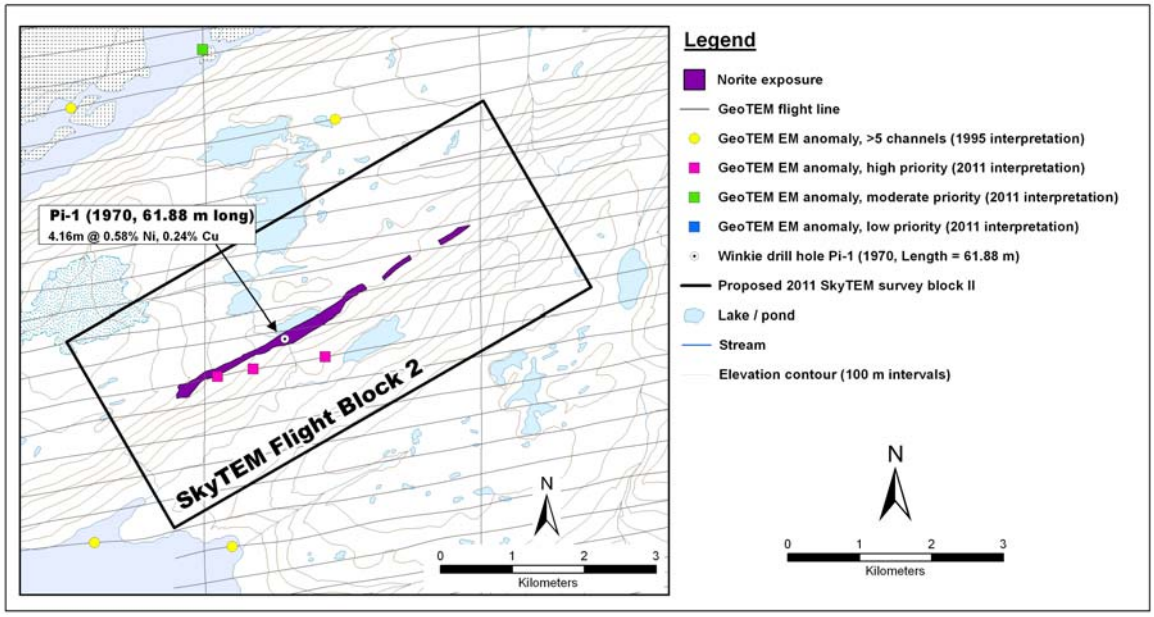

Figure 3: Map showing location of helicopter TEM survey block 2.

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 100% owned properties in Sudbury, Ontario, Maniitsoq, Greenland and the Thompson, Manitoba mining camp. The Company's initial focus is on two Sudbury, Ontario properties and its Greenland project.

The Post Creek/Halycon property in Sudbury 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 in Sudbury 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.

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.

The Company has also 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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