NORTH AMERICAN PALLADIUM LTD
Form SUPPL
April 20, 2010

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The information in this prospectus supplement and the accompanying prospectus is not complete and may be changed. This prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion
Preliminary Prospectus Supplement Dated April 20, 2010

Filed pursuant to General Instruction II.L of Form F-10; File No. 333-164512

Prospectus Supplement
(To Base Shelf Prospectus, dated February 9, 2010)

Units

Price: Cdn.$ per Unit

North American Palladium Ltd. ("we" or the "Company") is hereby qualifying for distribution units (the "Units") of the Company, at a price of Cdn.$ per Unit. Each Unit consists of one common share of the Company (a "Unit Share") and one half of one common share purchase warrant (a "Warrant"). Each whole Warrant will entitle the holder to purchase one Common Share at a price of Cdn.$ per Common Share, subject to adjustment and early termination in certain circumstances, at any time following the closing of this Offering until 5:00 pm (Toronto time) on the second anniversary of the closing of the Offering. The qualification of the Unit Shares and Warrants comprising the Units is referred to as the "Offering".

The Company's outstanding common shares ("Common Shares") are listed for trading on the NYSE Amex Equities ("NYSE Amex") under the symbol "PAL" and on the Toronto Stock Exchange (the "TSX") under the symbol "PDL." On , 2010, the last sale price of the Company's outstanding Common Shares reported on the NYSE Amex and the TSX was US$ and Cdn.$ per Common Share, respectively. The offering price of the Units was determined by negotiation between the Company, Cormark Securities Inc., , and (collectively, the "Underwriters").

Investing in the Units involves risks that are described in the "Risk Factors" section beginning on page S-5 of this prospectus supplement.

	Price to the Public	Underwriters' Fee	Net Proceeds to the Company(1)
Per Unit	Cdn.$	Cdn.$	Cdn.$

Total(2)	Cdn.$	Cdn.$	Cdn.$

(1) After deducting the Underwriters' fee (the "Underwriters' Fee"), but before deducting the expenses of the Offering payable by the Company, which are estimated at Cdn.$.

(2) The Company has granted the Underwriters an overallotment option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to an additional Units, at the public offering price, less the Underwriters' Fee, to cover overallocations, if any. If the overallotment option is exercised in full, the total price to the public, Underwriters' Fee and net proceeds before expenses to the Company will be Cdn.$, Cdn.$ and Cdn.$, respectively. This prospectus supplement and the accompanying prospectus also qualify the distribution of the overallotment option and any Units that may be delivered upon the exercise of the overallotment option. A purchaser who acquires Units under the overallotment option acquires those securities under this prospectus supplement and the accompanying prospectus, regardless of whether the overallotment option is ultimately filled through the exercise of the overallotment option or secondary market purchases. See "Underwriting."

This offering is made by a Canadian issuer that is permitted, under a multi-jurisdictional disclosure system adopted by the United States and Canada, to prepare this prospectus supplement and the accompanying prospectus in accordance with Canadian disclosure requirements. Prospective investors should be aware that such

requirements are different from those of the United States. Financial statements included or incorporated herein and therein have been prepared in accordance with Canadian generally accepted accounting principles, and are subject to Canadian auditing and auditor independence standards, and thus may not be comparable to financial statements of United States companies.

Prospective investors should be aware that the acquisition of the securities described herein may have tax consequences both in the United States and in Canada. Such consequences for investors who are resident in, or citizens of, the United States or Canada may not be described fully herein. See "Income Tax Considerations."

The enforcement by investors of civil liabilities under United States federal securities laws may be adversely affected by the fact that the Company is incorporated under the federal laws of Canada, that most of its officers and directors are residents of Canada, that some or all of the underwriters or experts named in the registration statement to which this prospectus supplement and the accompanying prospectus relate are residents of a foreign country, and that a substantial portion of the assets of the Company and said persons is located outside the United States.

NEITHER THE U.S. SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE OR CANADIAN SECURITIES COMMISSION OR REGULATOR HAS APPROVED OR DISAPPROVED OF THESE SECURITIES, PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS SUPPLEMENT OR THE ACCOMPANYING PROSPECTUS OR DETERMINED IF THIS PROSPECTUS SUPPLEMENT OR THE ACCOMPANYING PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The Underwriters, as principals, conditionally offer the Units, subject to prior sale, if, as and when issued by the Company, and accepted by the Underwriters in accordance with the conditions contained in the underwriting agreement referred to under "Underwriting" and subject to the passing upon of certain legal matters on behalf of the Company by Stikeman Elliott LLP, with respect to Canadian legal matters, and by Skadden, Arps, Slate, Meagher & Flom LLP, with respect to U.S. legal matters, and on behalf of the Underwriters by Fasken Martineau DuMoulin LLP, with respect to Canadian legal matters, and by Dorsey & Whitney LLP, with respect to U.S. legal matters. The Units will be offered in the United States and Canada through the Underwriters either directly or through their respective United States or Canadian broker-dealer affiliates, as applicable.

After the initial offering, the offering price may be decreased by the Underwriters as described under "Underwriting."

Subscriptions will be received subject to rejection or allotment in whole or in part and the right is reserved to close the subscription books at any time without notice. It is expected that the closing of the Offering will take place on , 2010, or such other date as may be agreed upon by the Company and the Underwriters. One or more certificates representing the Unit Shares and Warrants sold in the Offering will be issued in registered form to CDS Clearing and Depository Services Inc. ("CDS"), or to its nominee, and deposited with CDS on the closing of the Offering. A purchaser of Units will receive only a customer confirmation from the registered dealer from or through which the Units are purchased. The Underwriters may, in connection with the Offering, effect transactions which stabilize or maintain the market price of the Common Shares or the Warrants at levels which might not prevail in the open market. See "Underwriting."

Underwriters' Position	Maximum Size or Number of Securities Available	Exercise Period	Exercise Price
Overallotment option	additional Units	30 days from the date of this prospectus supplement	Cdn.$ per additional Unit

The Company's head and registered office is located at Suite 2116, 130 Adelaide Street West, Toronto, Ontario, Canada M5H 3P5.

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Prospectus Supplement

Prospectus

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of the Offering and also adds to and updates certain information contained in the accompanying prospectus, dated February 9, 2010, and the documents incorporated by reference herein and therein. The second part is the accompanying prospectus, which gives more general information, some of which may not apply to the Offering. This prospectus supplement is deemed to be incorporated by reference into the accompanying prospectus solely for the purposes of the Offering. If the description of the Common Shares and Warrants varies between this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement. In this prospectus supplement, all capitalized terms used and not otherwise defined herein have the meanings provided in the accompanying prospectus.

Unless otherwise indicated or the context suggests otherwise, all references in this prospectus supplement and the accompanying prospectus to "North American Palladium," the "Company," "we," "us," and "our" are to North American Palladium Ltd. and its subsidiaries.

You should rely only on the information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus. We have not, and the Underwriters have not, authorized any other person to provide you with different or inconsistent information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the Underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein is accurate only as of the respective dates of the documents in which such information appears. Our business, financial condition, results of operations and prospects may have changed since those dates.

CAUTIONARY NOTE TO UNITED STATES INVESTORS

This prospectus supplement and the accompanying prospectus have been prepared in accordance with the requirements of Canadian securities laws, which differ from the requirements of United States securities laws. Unless otherwise indicated, all reserve and resource estimates included in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein have been prepared in accordance with Canadian National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101") and the Canadian Institute of Mining, Metallurgy and Petroleum classification system. NI 43-101 is a rule developed by the Canadian Securities Administrators that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects.

Canadian standards, including NI 43-101, differ significantly from the requirements of the United States Securities and Exchange Commission (the "SEC"), and reserve and resource information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, these documents use the terms "measured resources," "indicated resources" and "inferred resources." Investors are advised that, while such terms are recognized and required by Canadian securities laws, the SEC does not recognize them. The requirements of NI 43-101 for identification of "reserves" are also not the same as those of the SEC, and reserves reported by the Company in compliance with NI 43-101 may not qualify as "reserves" under SEC standards. Under U.S. standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. Investors are cautioned not to assume that any part of a "measured resource" or "indicated resource" will ever be converted into a "reserve." Investors should also understand that "inferred resources" have a great amount of uncertainty as to their existence and as to their economic and legal feasibility. It cannot be assumed that all or any part of "inferred resources" exist, are economically or legally mineable or will ever be upgraded to a higher category. Under Canadian rules, estimated "inferred resources" may not form the basis of feasibility or pre-feasibility studies except in rare cases. In addition, disclosure of "contained ounces" in a mineral resource is permitted disclosure under Canadian regulations. However, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in place tonnage and grade, without reference to unit measures. Accordingly, information concerning mineral deposits set forth in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein may not be comparable to information made public by companies that report in accordance with U.S. standards.

See "Glossary of Mining Terms" in the accompanying prospectus for a description of certain of the mining terms used in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein.

DOCUMENTS INCORPORATED BY REFERENCE

This prospectus supplement is deemed, as of the date hereof, to be incorporated by reference into the accompanying prospectus solely for the purposes of the Offering.

The following documents which have been filed by the Company with securities commissions or similar authorities in each of the provinces of Canada, are specifically incorporated by reference into, and form an integral part of, the accompanying prospectus, as supplemented by this prospectus supplement:

(a) the annual information form of the Company dated March 31, 2010 for the financial year ended December 31, 2009 (the "AIF");

(b) the audited consolidated financial statements of the Company and the notes thereto for the financial year ended December 31, 2009, together with the report of the auditors thereon;

(c) management's discussion and analysis of the financial condition and results of operations of the Company for the financial year ended December 31, 2009;

(d) the supplementary schedule of "Reconciliation to Accounting Principles Generally Accepted in the United States" prepared in connection with the audited consolidated financial statements of the Company for the financial year ended December 31, 2009, together with the report of the auditors thereon;

(e) the management information circular of the Company dated April 23, 2009 prepared in connection with the Company's annual meeting of shareholders held on May 28, 2009, excluding those portions under the headings "Solicitation of Proxies", "Appointment and Revocation of Proxy", "Exercise of Discretion by Proxies", "Performance Graph", "Corporate Governance" and "Obligations, Duties and Roles of the Board of Directors"; and

(f) the material change report dated April 14, 2010, prepared in connection with the Company's resumption of palladium production at the Company's Lac des Iles mine.

Vincent Jourdain, Eng. PhD prepared a NI 43-101 Technical Report for the Sleeping Giant gold mine (the "Sleeping Giant Report") entitled "Updated Reserves and Resources on December 31, 2009, The Sleeping Giant Mine, Northwestern Quebec" dated and filed on SEDAR on March 31, 2010. Mr. Jourdain is not independent from the Company. **The Sleeping Giant Report includes and updates technical information from a NI 43-101 Technical Report for the Sleeping Giant gold mine prepared by Genivar L.P. (the "Genivar Report") dated October 8, 2008. As a result, any reference to, or information originating from, the Genivar Report that may be presented in the documents incorporated by reference in this prospectus supplement is no longer relevant and is excluded from this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein.**

Any material change reports (excluding confidential material change reports), annual information forms, interim consolidated financial statements of the Company (including the related management's discussion and analysis), annual audited consolidated financial statements of the Company (including the auditors' report thereon and the related management's discussion and analysis), business acquisition reports, information circulars, and any other disclosure documents required to be incorporated by reference herein under Canadian National Instrument 44-101 *Short Form Prospectus Distributions* which are filed by the Company with the Ontario Securities Commission after the date of this prospectus supplement and prior to the termination of the Offering shall be deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus. Any similar document filed by the Company with, or furnished by the Company to, the SEC pursuant to the United States Securities Exchange Act of 1934, as amended (the "Exchange Act"), after the date of this prospectus supplement shall be deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus and the registration statement of which this prospectus supplement forms a part (in the case of any Report on Form 6-K, if and to the extent provided in such report).

Any statement contained in this prospectus supplement, the accompanying prospectus or in a document (or part thereof) incorporated by reference herein or therein, or deemed to be incorporated by reference herein or therein, shall be deemed to be modified or superseded, for purposes of this prospectus supplement, to the extent that a statement contained in this prospectus supplement or in any subsequently filed document (or part thereof) that also is, or is deemed to be, incorporated by reference in this prospectus supplement modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute part of this prospectus supplement or the accompanying prospectus. The modifying or superseding statement need not state that it has modified or superseded a prior statement or include any other information set forth in the document which it modifies or supersedes. The making of a modifying or superseding statement shall not be deemed an admission for any purpose that the modified or superseded statement, when made, constituted a misrepresentation, an untrue statement of a material fact or an omission to state a material fact that is required to be stated or that is necessary to make a statement not misleading in light of the circumstances in which it was made.

CURRENCY AND FINANCIAL STATEMENT PRESENTATION

Unless otherwise specified or the context otherwise requires, all references to dollar amounts in this prospectus supplement, the accompanying prospectus and any document incorporated by reference herein or therein are references to Canadian dollars. References to "$" or "Cdn.$" are to Canadian dollars and references to "US$" are to U.S. dollars. See "Exchange Rate Information."

Unless otherwise indicated, all financial information included or incorporated by reference in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein has been prepared in accordance with Canadian generally accepted accounting principles ("Canadian GAAP"). The Company's audited financial statements that are incorporated by reference into this prospectus supplement and the accompanying prospectus have been reconciled to generally accepted accounting principles in the United States ("U.S. GAAP"), as described therein. For a summary of the significant differences between Canadian GAAP and U.S. GAAP as they apply to the Company's audited financial statements, you should refer to our supplementary schedule of "Reconciliation to Accounting Principles Generally Accepted in the United States" prepared in connection with the audited consolidated financial statements of the Company for the financial year ended December 31, 2009. See "Documents Incorporated by Reference."

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein contain forward-looking statements, which include future-oriented financial information, within the meaning of the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995 and the securities legislation of certain of the provinces of Canada, including the *Securities Act* (Ontario). Forward-looking statements, including future-oriented financial information, are necessarily based on estimates and assumptions made by the Company in light of its experience and perception of historical trends, current conditions and expected future developments, as well as other factors it believes are appropriate in the circumstances. These estimates and assumptions are inherently subject to significant business, economic, competitive and other uncertainties and contingencies, many of which, with respect to future events, are subject to change. These uncertainties and contingencies can affect actual results and could cause actual results to differ materially from those expressed or implied in any forward-looking statements made by the Company, or on its behalf.

In making the forward-looking statements, including future-oriented financial information, in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, the Company has made several assumptions that it believes are appropriate, including, but not limited to, the assumptions that:

- operations at the Lac des Iles mine and at the Sleeping Giant gold mine will be and remain viable operationally and economically;
- the expectations for mill feed head grade and mill performance will proceed as expected;
- the plans for mine production, mill production and exploration will all proceed as expected;
- market fundamentals will result in reasonable demand and prices for palladium, gold and by-product metals in the future;
- the Company will not be subject to any environmental disasters, significant litigation, significant regulatory changes or material labour disruptions;
- the advice the Company has received from its employees, consultants and advisors relating to matters such as mineral resource and mineral reserve estimates, metallurgy, permitting and environmental matters is reliable and correct and, in particular, that the models used to calculate mineral resources and mineral reserves are appropriate and accurate; and
- financing will be available on reasonable terms.

The Company cannot assure you that any of these assumptions will prove to be correct.

Forward-looking statements included or incorporated by reference in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, include statements with respect to anticipated future results, the Company's acquisition strategy, the Company's objectives or plans to grow production and reserves, expectations regarding the ability to raise capital and add to reserves, information concerning mineral resource and mineral reserve estimates, events and conditions and other statements that are not statements of historical fact. The words "expect," "anticipate," "estimate," "may," "could," "might," "will," "would," "should," "intend," "believe," "target," "budget," "plan," "strategy," "goals," "objectives," "projection" or the negative of any of these words and similar expressions are intended to identify forward-looking statements, although these words may not be present in all forward looking statements.

In light of the risks and uncertainties inherent in all forward-looking statements, including future-oriented financial information, the inclusion or incorporation by reference of forward-looking statements in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, should not be considered as a representation by the

Company or any other person that the Company's objectives or plans will be achieved. Numerous factors could cause the Company's actual results to differ materially from those expressed or implied in the forward-looking statements, including the following, which are discussed in greater detail under the heading "Risk Factors" in this prospectus supplement and elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein:

- weak prices of palladium, gold and other by-product metals or fluctuations in the prices of these commodities;
- the state of the global economy and economic and political events, including the deterioration of the global capital markets, affecting availability of financing and metal supply and demand;
- fluctuations in foreign currency exchange rates, particularly the Canadian dollar/U.S. dollar exchange rate;
- the ability of the Company to meet operating cost estimates at the Lac des Iles mine and the Sleeping Giant gold mine;
- the accuracy of mineral resource and mineral reserve estimates;
- the demand for, and cost of, exploration, development and construction services and equipment;
- the risks related to future exploration programs, including the risk that future exploration will not replace mineral resources and mineral reserves that are depleted;
- the risks related to acquisitions and the failure to adequately integrate acquired mining properties and companies;
- the Company's history of losses and the possibility of future losses;
- the inherent risks and hazards associated with mining and processing operations;
- the failure to achieve or maintain projected production levels;
- the potential uncertainty related to title to the Company's mineral properties;
- the Company's dependence on a third party for smelting and refining the concentrate that is produced at the Lac des Iles mill;
- the ability of the Company to obtain external financing to explore and develop its properties;
- employment disruptions, including in connection with the collective agreements between the Company and the employee unions;

costs of complying with environmental, health and safety laws and regulations;

costs of complying with other government regulations;

the risk that permits and regulatory approvals necessary to develop and operate mines on the Company's properties will not be available on a timely basis, on reasonable terms or at all;

competition from larger producers of platinum group metals ("PGMs") and gold and from potential new producers;

the development of new technology or new alloys that could reduce the demand for palladium;

loss of key personnel;

the ability of the Company to comply with the terms of credit facilities that it may enter into;

the potential ability of Kaiser-Francis Oil Company ("KFOC") to control the Company;

risks related to the Company's hedging strategies or its decision not to hedge;

- lack of infrastructure necessary to develop the Company's projects;

- risks involved in current or future litigation or regulatory proceedings;

- the ability of the Company to maintain adequate internal control over financial reporting and disclosure controls and procedures; and

- the ability of shareholders in the United States to enforce civil liabilities against a Canadian corporation.

These factors should be considered carefully, and readers should not place undue reliance on the Company's forward-looking statements. No assurance can be given that the expectations reflected in the forward-looking statements, including future-oriented financial information, contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein will prove to be correct. In addition, although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, including future-oriented financial information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. The Company undertakes no obligation to disclose publicly any future revisions to forward-looking statements, including future-oriented financial information, to reflect events or circumstances after the date of this prospectus supplement or to reflect the occurrence of unanticipated events, except as expressly required by law. Additionally, the forward-looking statements, including future-oriented financial information, contained herein are presented solely for the purpose of conveying management's belief as to the direction of the Company and may not be appropriate for other purpose.

SUMMARY

This summary highlights information contained elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. It does not contain all the information that may be important to you. You should carefully read the entire prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein. See "Documents Incorporated by Reference" in this prospectus supplement. You should also carefully consider the matters discussed under "Risk Factors" in this prospectus supplement.

THE COMPANY

North American Palladium Ltd. is the successor to Madeleine Mines Ltd., a company incorporated under the *Mining Companies Act* (Québec) by letters patent in 1968. In January 1992, Madeleine Mines Ltd. was amalgamated with 2945-2521 Quebec Inc. and the amalgamated company was wound up into the federally incorporated parent company, 2750538 Canada Inc. This entity changed its name to Madeleine Mines Ltd. and, in June 1993, the name was changed to North American Palladium Ltd. The Company continues to exist under the *Canada Business Corporations Act* ("CBCA"). The Company's head and registered office is located at Suite 2116, 130 Adelaide Street West, Toronto, Ontario, Canada M5H 3P5, telephone: (416) 360-7590, fax: (416) 360-7709.

The Company has three wholly-owned subsidiaries: Lac des Iles Mines Ltd., Cadiscor Resources Inc. ("Cadiscor") and North American Palladium Arctic Services Oy. As part of its development strategy, the Company may acquire additional mining properties, including gold properties, where such transactions are economically and strategically justified. However, there can be no assurance that the Company will be able to identify attractive acquisition candidates in the future or that any such acquisitions will be successful. See "Use of Proceeds".

The Company's principal properties are the Lac des Iles property (including the Lac des Iles mine and the Offset High Grade Zone (the "Offset Zone")) and the Sleeping Giant gold mine. Other projects are the Discovery Project, the Flordin Property and the Shebandowan West Project.

Lac des Iles Property

The Company's Lac des Iles property is located approximately 85 kilometres northwest of the city of Thunder Bay, Ontario, Canada. The property consists of the Roby open pit mine, the Roby underground mine, the Offset Zone, a processing plant, and the original mill. The primary deposits on the property are the Roby Zone and the Offset Zone, both disseminated magmatic nickel copper PGM deposits. On October 21, 2008, the decision was made to temporarily place the Lac des Iles mine on care and maintenance, effective October 29, 2008, due to declining metal prices. On December 8, 2009, the Company announced its intention to restart operations at the Roby underground mine. On April 14, 2010, the Company announced that it had resumed production at the Roby underground mine and expects to produce approximately 140,000 ounces of palladium per year over a two-year period.

The Company has a workforce of approximately 180 employees at the Lac des Iles mine and recently signed a new collective agreement with the United Steelworkers for unionized workers, which expires May 31, 2012.

In the first quarter of 2010, the Company negotiated a new smelting and refining agreement with Xstrata Nickel ("Xstrata") for the purchase of substantially all of the concentrate from the Lac des Iles mine. Pricing is based on prevailing market prices, subject to smelting and refining charges. The contract has a two-year term and may be extended for an additional year upon mutual agreement. Concentrate will be delivered by truck to Xstrata's Sudbury, Ontario smelter operations where the nickel and copper are extracted. The PGM and gold bearing material will then be further processed at

Xstrata's refining operations in Kristiansand, Norway. The new agreement entitles the Company to receive an advance settlement payment equal to 70% of the recovered metals within 60 days following the month of concentrate delivery.

Sleeping Giant Gold Mine

The Company's Sleeping Giant gold mine is situated in the Abitibi region of Quebec, approximately 80 kilometres north of the town of Amos. The mine is a narrow vein underground mine that commenced production in 1988 and is accessible by a four-compartment production shaft with a total depth of 1,053 metres. The mine site also has a mill with a rated capacity of 900 tonnes per day. There are approximately 190 employees employed by the Sleeping Giant gold mine and mill.

On May 26, 2009, the Company acquired the Sleeping Giant gold mine through the acquisition of Cadiscor. The Company successfully restarted the mine on schedule and on budget and poured its first gold on October 6, 2009. The Sleeping Giant gold mine achieved commercial production as of January 1, 2010. Assuming the Sleeping Giant gold mine achieves steady-state production, expected to be mid-2010, the milling rate is expected to be approximately 15,000 tonnes per month and the Company expects cash costs to be approximately US$550 per ounce with annualized production of 50,000 ounces. The current mineral reserves are expected to support operations for 12 months. If all of the mineral resources are converted to mineral reserves, the life of the mine is expected to increase by three years. In the first quarter of 2010, as the mine continued to ramp up, cash costs were significantly higher than the forecasted cash costs for steady-state production.

The ramp up to steady-state production has been slower than anticipated due in part to lower than expected grades from several producing stopes. In addition, whereas the previous operator tried to maintain approximately 16-18 stopes in production to ensure consistent tonnes and grade, the Company has thus far only operated 9-10 stopes at a time. The Company has abandoned three lower grade stopes and has attempted to make up for lost tonnage by mining remnants in previously mined stopes. New stopes are under development in order to increase the number of active stopes available for mining to seek to achieve a steady-state target of 50,000 ounces per year.

Discovery Project

The Company's Discovery Project is located approximately 35 kilometres northwest of the town of Lebel-sur-Quévillon, Quebec and approximately 70 kilometres from the Sleeping Giant gold mine. This greenfield gold property is comprised of 124 contiguous mining claims covering 3,351 hectares. Cadiscor engaged InnovExplo Inc. ("InnovExplo") of Val d'Or to prepare a NI 43-101 resource estimate and scoping study on the project, which was issued on August 1, 2008.

Flordin Property

In 2008, Cadiscor carried out preliminary exploration drilling on the Flordin property at a cost of $0.3 million. Drilling on Flordin intersected several mineralized zones, expanding their lateral and depth dimensions and confirming the exploration potential of the property. During the last quarter of 2009, the Company hired InnovExplo to prepare a NI 43-101 resource estimate on the Flordin gold deposit. The report, entitled "Technical Report and Mineral Resource Estimate for the Flordin Deposit" dated and filed on SEDAR on March 31, 2010, estimated that there were 29,700 tonnes of measured resources grading 4.6 g/t Au, 649,200 tonnes of indicated resources grading 4.24 g/t Au and 1,451,400 tonnes of inferred resources grading 3.63 g/t Au.

Shebandowan West Project

On December 10, 2007, the Company earned a 50% interest in the former producing Shebandowan mine and the surrounding Haines and Conacher properties pursuant to an option and joint venture agreement with Vale Inco. The properties contain a series of nickel-copper-PGM mineralized bodies and the land package is located 90 kilometres west of Thunder Bay, Ontario, and approximately 100 kilometres southwest from the Company's Lac des Iles mine. Vale Inco retained an option to increase its interest from 50% to 60%, exercisable in the event that a feasibility study on the properties results in a mineral reserve and mineral resource estimate of the equivalent of 200 million pounds of nickel and other metals.

Recent Developments

The Company has recently entered into a letter of intent to acquire the Vezza gold project in the Abitibi region in Quebec from Agnico-Eagle Mines Ltd. for Cdn.$10 million, comprised of Cdn.$3.5 million in cash and Cdn.$6.5 million in Common Shares. The transaction is subject to TSX and NYSE Amex approval and is scheduled to close by late May, 2010, subject to certain closing conditions. While the property is not currently considered by the Company to be a material property, and is not intended, assuming the closing of the transaction, to be developed at this time, the Company believes that it has the potential to become material to the Company in the future. Following closing, the Company intends to conduct further work on the project, including dewatering and permit renewals, before making a decision on how best to advance the project. A NI 43-101 technical report in respect of the Vezza property is expected to be prepared and filed by late May or early June, 2010.

Resources	**Tonnes**	**Grade (g/t)**	**Contained Ounces**
Measured	193,000	6.0	37,600
Indicated	1,324,000	5.9	251,000
Total M&I	**1,517,000**	**5.9**	**288,600**
Inferred	754,000	5.0	121,500

(1) This mineral resource estimate was prepared by Scott Wilson Roscoe Postle Associates Inc. ("RPA") as of February 23, 2010.

(2) M. Bernard Salmon, B.Sc., Eng. and M. Peter Peltz are each independent Qualified Persons within the meaning of NI 43-101 and are the authors for the RPA report.

(3) Mineral resources are not mineral reserves with demonstrated economic viability. See "Cautionary Note to United States Investors".

Vezza is an advanced-stage exploration project situated 80 kilometres by paved road from the Sleeping Giant gold mine. The Vezza gold deposit historically underwent extensive exploration of 85,000 metres of drilling, and substantial underground development. The project, which has power at site, includes a three-compartment shaft with four underground levels down to a depth of 741 metres, a hoist, and surface and pollution control structures.

There can be no assurance that the Vezza acquisition will be completed or, if completed, that the property will be developed.

Michel Bouchard, P.Geo., Vice President, Exploration and Development for North American Palladium, is the Qualified Person who supervised the preparation of the above disclosure concerning Vezza.

As part of its development strategy, the Company may acquire additional mining properties where such transactions are economically and strategically justified. However, there can be no assurance that the Company will be able to identify attractive acquisition candidates in the future or that any such acquisitions will be successful.

The issuance of additional Common Shares by the Company as consideration for an acquisition transaction may involve risks that are described in "Risk Factors Risks Related to the Offering *Future sales or issuances of equity securities could decrease the value of the Common Shares and Warrants, dilute investors' voting power and reduce the Company's earnings per share.*"

THE OFFERING

Issuer	North American Palladium Ltd.
Securities offered	Units. Each Unit is comprised of one Unit Share and one half of one Warrant. Each whole Warrant entitles the holder to purchase one Common Share at an exercise price of Cdn.$ per Common Share, subject to adjustment and early termination in certain circumstances, at any time following the closing of the Offering until 5:00 pm on the date that is 18 months after the closing of the Offering. See "Description of Share Capital Warrants".
Issue price	Cdn.$ per Unit.
Common Shares outstanding after the Offering[(1)]	Common Shares if all of the Warrants offered hereby are exercised. If the overallotment option is exercised in full and all of the Warrants offered hereby and thereby are exercised, Common Shares will be outstanding after the Offering.
Overallotment option	The Company has granted the Underwriters an overallotment option to purchase up to additional Units at the public offering price set forth on the cover of this prospectus supplement. The overallotment option is exercisable for 30 days from the date of this prospectus supplement.
Use of proceeds	The Company estimates that net proceeds from the Offering will be approximately Cdn.$ (approximately Cdn.$ if the Underwriters exercise their overallotment option in full), after deducting the Underwriters' Fee and estimated expenses of the Offering. The Company plans to use the net proceeds received from the sale of the Units to fund the development of the Offset Zone at the Lac des Iles mine, to fund other capital expenditures, for exploration and development expenditures at its properties (including the Lac des Iles mine and the Sleeping Giant gold mine), to fund working capital requirements and for general corporate purposes, which may potentially include future acquisitions. As part of its development strategy, the Company may acquire additional mining properties where such transactions are economically and strategically justified. However, there can be no assurance that the Company will be able to identify attractive acquisition candidates in the future or that any such acquisitions will be successful. See "Use of Proceeds."
Stock exchanges	The outstanding Common Shares are listed for trading on the NYSE Amex under the symbol "PAL" and on the TSX under the symbol "PDL."
Risk factors	An investment in the Units involves significant risk. See "Risk Factors" beginning on page S-5 of this prospectus supplement for a discussion of factors you should carefully consider before deciding to invest in the Units.

(1) Based on Common Shares outstanding as of March 31, 2010. This figure excludes: (i) 3,018,050 Common Shares reserved for issuance pursuant to outstanding stock options as at March 31, 2010, which are exercisable at a weighted average exercise price of Cdn.$3.15 per Common Share; (ii) 951,649 Common Shares reserved for issuance upon the exercise of the Company's outstanding Series II Warrants (the exercise price of the Series II Warrants is US$7.85); (iii) 330,000 Common Shares reserved for issuance upon the exercise of warrants issued by Cadiscor (with a weighted average exercise price of Cdn.$2.12), which were assumed by the Company on its acquisition of Cadiscor on May 26, 2009; and (iv) 9,200,000 Common Shares reserved for issuance upon the exercise of warrants (the "2009 Warrants") issued in connection with a financing conducted by the Company in September 2009 (the exercise price of the 2009 Warrants is Cdn.$4.25).

RISK FACTORS

An investment in the Units involves risk. In addition to the other information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, including without limitation, the risk factors referred to in the AIF under the heading "Risk Factors", prospective investors should carefully consider the factors set out below in evaluating the Company and its business before making an investment in the Units. If any event arising from these risks occurs, the Company's business, prospects, financial condition, results of operations or cash flows could be adversely affected, the trading price of the Common Shares or the Warrants could decline and all or part of any investment in the Units may be lost. Additional risks and uncertainties not currently known to the Company or that the Company currently deems immaterial may also materially and adversely affect the Company's business, prospects, financial condition, results of operation and cash flows.

Risks Related to the Company

The Company is dependent on a third party for smelting and significantly refining its palladium. If the third party is unable to accommodate the Company's smelting and refining requirements or the existing contract is terminated or not renewed, the Company's ability to generate revenues could be harmed.

The Company has a smelter agreement with Xstrata, which provides for the smelting and refining of the metals contained in the concentrates produced at the Lac des Iles mine. The termination of the agreement or the failure to renew the agreement on acceptable terms, or at all, could have a material adverse effect on the Company's financial performance and results of operations until such time as alternative smelting and refining arrangements could be made or alternative purchasers of the Company's concentrates could be found. If the Company is required to make alternative refining arrangements or to find alternative purchasers, there can be no assurance that such arrangements would be on terms as favorable to the Company as its existing agreement with Xstrata.

See "Risk Factors" in the AIF, for a description of a number of additional risks related to the Company. See "Documents Incorporated by Reference".

Risks Related to the Offering

Future sales or issuances of equity securities could decrease the value of the Common Shares and Warrants, dilute investors' voting power and reduce the Company's earnings per share.

The Company may sell additional equity securities in subsequent offerings (including special shares that have rights and preference potentially superior to those of the Common Shares or through the sale of debt securities or other securities convertible into equity securities) and may issue additional equity securities to finance future acquisitions and other projects and to satisfy its obligations pursuant to the exercise of common share purchase warrants. See "The Company   Recent Developments".

Sales or issuances of a substantial number of equity securities, or the perception that such sales could occur, may adversely affect prevailing market prices for the Common Shares and Warrants. With any additional sale or issuance of equity securities, investors will suffer dilution of their voting power and the Company may experience dilution in its earnings per share.

The Common Shares are publicly traded and are subject to various factors that have historically made the Company's share price volatile.

The trading price of the Common Shares has been, and may continue to be, subject to large fluctuations, which may result in losses to investors. The trading price of the Common Shares and Warrants may increase or decrease in response to a number of events and factors, including:

- the Company's operating performance and the performance of competitors and other similar companies;
- volatility in palladium, gold and other metal prices;
- the public's reaction to the Company's press releases, other public announcements and the Company's filings with the various securities regulatory authorities;
- changes in earnings estimates or recommendations by research analysts who track the Common Shares or the shares of other companies in the mineral resource sector;
- changes in general economic and/or political conditions;
- the number of Common Shares to be publicly traded after the Offering and any additional offering;
- the arrival or departure of key personnel;
- acquisitions, strategic alliances or joint ventures involving the Company or its competitors; and
- the factors listed under the heading "Cautionary Note Regarding Forward-Looking Statements."

In addition, the market price of the Common Shares and Warrants is affected by many variables not directly related to the Company's success and that are, therefore, not within the Company's control, including other developments that affect the market for all mineral resource sector securities, the breadth of the public market for the Common Shares and Warrants, and the attractiveness of alternative investments. The effect of these and other factors on the market price of the Common Shares on the exchanges on which the Common Shares trade has historically made the Company's share price volatile and suggests that the Company's share price (and the price of the Warrants) could continue to be volatile in the future.

The Company's principal shareholder, KFOC, will own approximately % of the outstanding Common Shares following the Offering.

To the Company's knowledge, KFOC will own approximately % of the outstanding Common Shares following the Offering (assuming the Underwriters' overallotment option is not exercised, and assuming that KFOC has made and makes no purchases of Common Shares after April 20, 2010, including no purchases of Common Shares in connection with the Offering).

KFOC currently has, and following the Offering will continue to have, the ability to direct the affairs and business of the Company and it cannot be assumed that the interests of KFOC will coincide with those of the Company. This concentration of ownership potentially results in KFOC having the ability to elect the Company's board of directors and may have the effect of delaying or preventing a change in control of the Company, which may deprive the Company's shareholders of a control premium that might otherwise have been realized in connection with an acquisition of the Company. Alternatively, if KFOC sells its shareholdings to a third party, the new purchasing shareholder would obtain a considerable controlling interest in the Company. There can be no assurance that the interests of such a shareholder would be consistent with the plans of the Company as described in this prospectus supplement or that such a sale would not decrease the value of the Common Shares or the Warrants.

There may be adverse U.S. tax consequences for investors in the United States if the Company is or becomes a "passive foreign investment company" under the U.S. Internal Revenue Code.

Potential investors that are U.S. Holders (as defined in "Income Tax Considerations United States Federal Income Tax Considerations") should be aware that we believe we were not a "passive foreign investment company" ("PFIC") under Section 1297(a) of the U.S. Internal Revenue Code for the taxable year ended December 31, 2009, and we believe we will not be a PFIC for subsequent taxable years. If we are a PFIC, any gain recognized on the sale of the Common Shares or Warrants and any "excess distributions" (as specifically defined) paid on our Common Shares must be ratably allocated to each day in a U.S. Holder's holding period for the Common Shares or Warrants. The amount of any such gain or excess distribution allocated to prior years of such U.S. Holder's holding period for the Common Shares or Warrants generally will be subject to U.S. federal income tax at the highest tax rate applicable to ordinary income in each such prior year, and the U.S. Holder will be required to pay interest on the resulting tax liability for each such prior year, calculated as if such tax liability had been due in each such prior year.

The determination of whether we will be a PFIC for a taxable year depends, in part, on the application of complex U.S. federal income tax rules, which are subject to differing interpretations. In addition, whether we will be a PFIC for any taxable year generally depends on our assets and income over the course of each such taxable year and, as a result, cannot be predicted with certainty as of the date of this prospectus supplement. Accordingly, there can be no assurance that the U.S. Internal Revenue Service will not challenge the determination made by us concerning our PFIC status or that we will not be a PFIC for any taxable year.

See "Income Tax Considerations United States Federal Income Tax Considerations" for more information on tax considerations related to our PFIC status, including the ability of U.S. Holders to make certain elections that may mitigate the adverse consequences if the Company were a PFIC. Potential investors that are U.S. Holders should be aware that a qualified electing fund election would not be available because the Company does not intend to provide the information necessary to allow U.S. Holders to make such election.

USE OF PROCEEDS

The Company estimates that the net proceeds from the Offering will be approximately Cdn.$ (approximately Cdn.$ if the Underwriters exercise their overallotment option in full), after deducting the Underwriters' Fee and estimated expenses relating to the Offering. The Company plans to use the net proceeds received from the sale of the Units to fund the development of the Offset Zone at the Lac des Iles mine, to fund other capital expenditures, for exploration and development expenditures at its properties (including the Lac des Iles mine and the Sleeping Giant gold mine), to fund working capital requirements and for general corporate purposes, which may potentially include future acquisitions. As part of its development strategy, the Company may acquire additional mining properties where such transactions are economically and strategically justified. However, there can be no assurance that the Company will be able to identify attractive acquisition candidates in the future or that any such acquisitions will be successful.

It is anticipated that the Company will invest the proceeds of the Offering that it does not immediately require in investment grade income securities or short-term marketable securities.

The actual amount that the Company spends in connection with each of the intended uses of proceeds may vary significantly and will depend on a number of factors, including those listed under "Risk Factors" in this prospectus supplement.

PRICE RANGE AND TRADING VOLUME

The Company's outstanding Common Shares are listed for trading on the NYSE Amex and the TSX under the trading symbols "PAL" and "PDL," respectively. The following table sets out the reported high and low closing prices and trading volume of the Common Shares on the NYSE Amex and the TSX for the periods indicated:

	NYSE Amex			TSX		
	High (U.S.$)	Low (U.S.$)	Volume	High (Cdn.$)	Low (Cdn.$)	Volume
2009						