

TORONTO, ONTARIO--(Marketwired - Jun 7, 2017) - [North American Palladium Ltd.](#) ("NAP" or the "Company") (TSX:PDL)(OTC PINK:PALDF) is pleased to announce the results of a feasibility study including a new Life Of Mine ("LOM") plan for its Lac des Iles mine property ("LDI" or the "Property") in northwestern Ontario. The outcomes of the feasibility study are fully described in a National Instrument 43-101 ("NI 43-101") technical report (the "Technical Report") prepared by Nordmin Engineering Ltd., and their associates, to be filed today on SEDAR (www.sedar.com) and posted on the Company's website (www.nap.com).

Highlights of the Feasibility Study:

- 37.7 million tonnes mined from surface and underground sources with an average grade of 2.21 g/t palladium containing 2.68 million ounces of palladium;
- A 9.5 year mine life averaging 10,860 tonnes per day and 214,400 payable ounces palladium per year;
- Average mill operating rate of approximately 12,250 tonnes per day, producing an average of 237,000 payable ounces palladium per year during full production;
- EBITDA¹ of \$1.06 billion from a total revenue of \$2.87 billion;
- All-in sustaining cost¹ ("AISC") of US\$527/oz per ounce sold;
- Post-tax cash flow of \$678 million resulting in a NPV (8%), after tax, of \$470 million;
- Total LOM operating costs of \$46.88/tonne milled;
- Total LOM capital expenditures of \$303 million; and
- Includes approximately 20.4 million tonnes of underground mining down to the 1305 metre level primarily from the new sublevel shrinkage ("SLS") mining method, and approximately 17.3 million tonnes of surface material primarily from a pushback of the currently dormant Roby open pit.

"We are pleased to be able to announce this substantial increase in total tonnes and ounces to be produced at the Lac des Iles Mine. The economics are robust with an all-in sustaining cost of US\$527 per ounce, an EBITDA of just over \$1 billion and positive free cash flow over the entire life of mine totaling \$678 million. The operational turnaround at LDI is now largely complete with SLS mining giving us higher and more consistent production from the underground mine, a planned return to full time mill operations in the fall of this year, and a resumption of surface mining early next year," said Jim Gallagher, President and CEO of North American Palladium.

"Current operations and the LOM plan are both enhanced by palladium prices that are nearing record levels and based on analyst consensus, are forecasted to remain at or increase further from today's level. The bullish outlook for palladium is based on current and projected supply deficits driven by growing global auto sales, tougher emissions standards and a move away from diesel engines to gasoline engines which use more palladium in their catalytic convertors. Add to this, the excellent exploration potential at LDI and on our greenfields properties and we see a very positive long-term future for the Company," continued Mr. Gallagher.

Life of Mine Plan

The LOM plan and the associated economic analysis are based on a new NI 43-101 technical report titled: "Feasibility Study Incorporating the Life of Mine Plan for Lac des Iles Mine." This report will be filed today on SEDAR (<http://www.sedar.com/>). The Technical Report was prepared by Nordmin Engineering Ltd. The LOM plan is based on Mineral Reserves estimates and mine designs completed by Mr. Kris D. Hutton, P. Eng., and Mr. Johnny Canosa, P. Eng., both of whom are qualified persons under NI 43-101. The economic analysis was completed by Mr. Brian W. Buss, P. Eng., an independent consultant and a qualified person under NI 43-101.

Key elements of the LOM plan include:

- 37.7 million tonnes milled;
- Average mining rate of 6,250 tonnes per day ("tpd") from underground sources and 5,420 tpd from surface sources (averaged over 2018-2025 period);
- Open pit operations resuming in Q1 2018; and
- Lower unit production costs as a result of return to full-time mill operations in H2 2017 and the mining of surface reserves starting in 2018.

The LOM plan commences on July 1, 2017 and includes continuous production from the Lac des Iles Mine for 9.5 years. The LOM production forecast is summarized in Table 1. Figure 1 illustrates the relative contribution of each of the underground and surface ore sources. The annual and cumulative LOM cash flows are shown in Figure 2. The tonnage, grade and location of the sources of production for the LOM plan are illustrated in Figure 3.

Table 1. Production Plan for the Property

| Item | LOM Total |
|---|-----------|
| Average Underground Mining Rate (tpd ¹) | 5,900 |
| Average Surface Mining Rate (tpd ¹) | 5,000 |

| | |
|---|-------|
| Strip Ratio (surface pit mining) | 2.05 |
| Underground Tonnes Milled (millions) | 20.4 |
| Surface Tonnes Milled (millions) | 17.3 |
| Total Tonnes Milled (millions) | 37.7 |
| Average Pd Head Grade (g/t ²) | 2.21 |
| Payable Palladium Sold (K oz ³) | 2,037 |

(Notes: ¹tpd = tonnes per day, ²g/t = grams per tonne, ³oz = troy ounces)

Underground Mining Plan

The underground mining plan is anchored by long-term production from the Lower Offset Zone. The principal underground mining areas are shown in Figure 3 and include the Upper and Lower Offset Zones, the Roby Footwall Zone and the B2 Zone. The Lower Offset Zone will be the largest source of underground production, having an average mining rate of approximately 4,000 tpd over the LOM. A majority of the underground production will be hoisted to surface. The balance will be trucked to surface using the existing Roby underground mine ramp.

To view Figure 1 accompanying this press release, please visit the following link:
http://media3.marketwire.com/docs/1096714_Figure1.pdf

To view Figure 2 accompanying this press release, please visit the following link:
http://media3.marketwire.com/docs/1096714_Figure2.pdf

Surface Mining Plan

The LOM plan includes the resumption of surface mining operations, commencing in 2018 with initial ore production for the Sheriff pit and pre-stripping on the larger Roby pit pushback (Figure 4). The Sheriff pit mining plan extracts 0.5 million tonnes of ore at an average grade of 1.90 g/t Pd with a strip ratio of 3.86. The Sheriff pit will be mined at an average rate of ~1,000 tpd (ore) and will be in continuous production for a period of 16 months. The Roby pit pushback extracts 11.7 million tonnes of ore at an average grade of 1.29 g/t Pd and a strip ratio of 1.98. The Roby pit pushback will be in continuous production for a period of 9 years, commencing in 2018 at an average rate of 3,700 tpd and reaching peak ore production of ~5,000 tpd in 2022. Surface production will be augmented by the Company's low-grade surface stockpile until 2023.

To view Figure 3 accompanying this press release, please visit the following link:
http://media3.marketwire.com/docs/1096714_Figure3.pdf

To view Figure 4 accompanying this press release, please visit the following link:
http://media3.marketwire.com/docs/1096714_Figure4.pdf

Mineral Reserves

The Company published an update to its mineral reserves and mineral resources estimates on May 29th, 2017. The associated news release is available for download on the Company's website. A summary of the updated mineral reserves estimates is provided in Table 2.

Table 2. Summary of the Updated Mineral Reserves Estimates for the Lac des Iles Mine Property. Mineral Reserves reflect depletion from mining activities up to and including December 31, 2016. The LOM plan extracts 37.7 million tonnes of these Mineral Reserves commencing on July 1, 2017.

| Location | Classification | Tonnes Pd (000s) | Contained Pd (g/t) (K oz) |
|---------------------|-------------------|---------------------|------------------------------|
| Total Underground | Proven | 4,024 | 2.93 379 |
| " | Probable | 17,228 | 3.13 1,631 |
| Total Surface | Proven | 1,907 | 1.55 95 |
| " | Probable | 15,365 | 1.17 577 |
| Total - All Sources | Proven | 5,931 | 2.48 472 |
| " | Probable | 32,593 | 2.21 2,315 |
| TOTAL | Proven & Probable | 38,524 | 2.25 2,787 |

Summary of LOM Economics

The cash flow analysis associated with the LOM Plan resulted in a cumulative after-tax cash flow of \$678 million, yielding net present values of \$470 million and \$536 million when discounted at 8% and 5%, respectively (Table 3). Using price assumptions reflecting consensus forecasts (Table 5), the mine generates positive cash flow in each operating year starting with 2017 (see Figure 2). A total of \$303 million in capital costs were identified for the life of mine plan and closure costs were included in the valuation. Various sensitivity analyses were completed in regards to the main drivers of economic performance including grade, operating and capital costs, metal prices and foreign exchange rates. A summary of the LOM statistics is provided in Table 3. Sensitivities of the LOM financial results are provided in Tables 4a and 4b. The financial assumptions are listed in Table 5.

Table 3. Summary of operating and capital costs and revenues. All figures are in Canadian dollars.

| | |
|---|-----------------|
| Palladium Reserves (Contained) | 2.7 M oz |
| Palladium Reserve Grade | 2.21 g/t |
| Open Pit / Underground Tonnes | 46% OP / 54% UG |
| Average Mill Throughput | 10,900 tpd |
| Estimated Palladium Recovery | 81% |
| Palladium Production (Payable) | 2.04 M oz |
| Palladium Production (LOM Avg. Pay.) | 214,400 oz |
| Reserve Life | 9.5 Years |
| Cash Costs (LOM Avg.) ¹ | US\$428/oz sold |
| All-in Sustaining Costs (LOM Avg.) ¹ | US\$527/oz sold |
| LOM EBITDA | C\$1,056M |
| LOM Post-tax cash flow | C\$678M |
| Post-Tax NPV ^(5%) | C\$536M |
| Post-Tax NPV ^(8%) | C\$470M |

(Notes: ¹Net of by-product revenue and excluding taxation.)

Table 4a. Sensitivities of LOM Financial Results - NPV¹ @ 8% (CAD)

| USD/CAD | 1.20 | 1.25 | 1.28 | 1.30 | 1.35 |
|------------|----------|----------|----------|----------|----------|
| US\$/oz Pd | | | | | |
| \$ 700 | \$ 164 M | \$ 224 M | \$ 265 M | \$ 282 M | \$ 339 M |
| \$ 750 | \$ 242 M | \$ 302 M | \$ 344 M | \$ 362 M | \$ 421 M |
| \$ 800 | \$ 315 M | \$ 379 M | \$ 423 M | \$ 441 M | \$ 495 M |
| \$ 835 | \$ 364 M | \$ 429 M | \$ 470M | \$ 486 M | \$ 537 M |
| \$ 850 | \$ 390 M | \$ 454 M | \$493 M | \$ 508 M | \$ 560 M |
| \$ 900 | \$ 461 M | \$ 517 M | \$ 555 M | \$ 571 M | \$ 624 M |

(Note: ¹Palladium price and forex rate adjusted 2018 forward.)

Table 4b. Sensitivities of LOM Financial Results - NPV¹ @ 1.28 USD/CAD exchange rate (CAD)

| Discount | 0% | 5% | 7% | 8% | 10% |
|------------|----------|----------|----------|----------|----------|
| US\$/oz Pd | | | | | |
| \$ 700 | \$ 394 M | \$ 305 M | \$ 277 M | \$ 265 M | \$ 242 M |
| \$ 750 | \$ 502 M | \$ 394 M | \$ 360 M | \$ 344 M | \$ 316 M |
| \$ 800 | \$ 616 M | \$ 482 M | \$ 441 M | \$ 423 M | \$ 390 M |
| \$ 835 | \$ 678 M | \$ 536 M | \$ 491 M | \$ 470M | \$ 433 M |
| \$ 850 | \$ 704 M | \$560 M | \$ 514 M | \$493 M | \$456 M |
| \$ 900 | \$ 783 M | \$ 627 M | \$ 578 M | \$ 555 M | \$ 514 M |

(Note: ¹Palladium price and forex rate adjusted 2018 forward.)

Table 5. LOM Financial Assumptions

| | 2017 H2 | 2018 | 2019 | 2020 | 2021 fwd |
|-------------------|-------------|-------------|-------------|-------------|-------------|
| US\$/oz Palladium | \$ 770.00 | \$ 800.00 | \$ 830.00 | \$ 850.00 | \$ 840.00 |
| US\$/oz Platinum | \$ 1,002.50 | \$ 1,069.00 | \$ 1,200.00 | \$ 1,250.00 | \$ 1,225.00 |
| US\$/oz Gold | \$ 1,242.13 | \$ 1,270.63 | \$ 1,300.00 | \$ 1,350.74 | \$ 1,325.37 |
| US\$/lb Copper | \$ 2.60 | \$ 2.61 | \$ 2.75 | \$ 2.97 | \$ 2.86 |
| USD/CAD | 1.355 | 1.310 | 1.300 | 1.260 | 1.280 |

(Source: Bloomberg - median of analyst forecasts - 5/29/17)

(Notes: oz = troy ounce, lb = pound, "fwd" = forward)

Notes: All currency figures are in Canadian dollars unless otherwise noted.

Technical Information and Qualified Persons

The technical content of this news release was reviewed and approved by Mr. Brian W. Young, P. Eng., and Dr. David C. Peck, P. Geo., both of whom are employees of the Company and qualified persons under NI 43-101.

About North American Palladium

NAP is an established precious metals producer that has been operating its Lac des Iles mine ("LDI") located in Ontario, Canada since 1993. LDI is the world's only mining operation that is a primary producer of palladium, offering investors unique exposure to palladium. The Company's shares trade on the TSX under the symbol PDL and on the OTC Pink under the symbol PALDF.

Cautionary Statement on Forward-Looking Information

Certain information contained in this news release constitutes 'forward-looking statements' or forward looking information' within the meaning of applicable Canadian securities laws. All statements other than statements of historical fact are forward-looking statements. The words 'target', 'plan', 'should', 'could', 'estimate', 'guidance', and similar expressions identify forward-looking statements. Forward-looking statements in this news release include, without limitation: information pertaining to the Company's strategy, plans or future financial or operating performance, such as statements with respect to, long term fundamentals for the business, operating performance expectations, project timelines, tailings management plan, mining method change, production forecasts, operating and capital cost estimates, expected mining and milling rates, cash balances, projected grades, mill recoveries, metal price and foreign exchange rates and other statements that express management's expectations or estimates of future performance. Forward-looking statements involve known and unknown risk factors that may cause the actual results to be materially different from those expressed or implied by the forward-looking statements. Such risks include, but are not limited to: the possibility that metal prices and foreign exchange rates may fluctuate, the risk that the LDI mine may not perform as planned, that the Company may not be able to meet production forecasts, the possibility that the Company may not be able to generate sufficient cash to service its indebtedness and may be forced to take other actions, inherent risks associated with development, exploration, mining and processing including environmental risks and risks to tailings capacity, employment disruptions, including in connection with collective agreements between the Company and unions and the risks associated with obtaining necessary licenses and permits. For more details on these and other risk factors see the Company's most recent Management's Discussion and Analysis and Annual Information Form on file with Canadian securities regulatory authorities and on SEDAR at www.sedar.com under the heading "Risk Factors".

This release also contains references to estimates of mineral resources and mineral reserves. The estimation of mineral resources is inherently uncertain and involves subjective judgments about many relevant factors. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation (including estimated future production from the LDI mine, the anticipated tonnages and grades that will be mined and the estimated level of recovery that will be realized), which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral resource or mineral reserve estimates may have to be re-estimated based on: (i) fluctuations in metal prices; ii) foreign exchange rates; (iii) results of drilling, (iv) metallurgical testing and other studies; (v) mining operations, including dilution; (vi) the evaluation of mine plans subsequent to the date of any estimates; and (vii) the possible failure to receive required permits, approvals and licenses or changes to existing mining licenses.

Forward-looking statements are necessarily based upon a number of factors and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The factors and assumptions contained in this news release, which may prove to be incorrect, include, but are not limited to: that the Company will be able to continue normal business operations at its LDI mine, that metal prices and exchange rates between the Canadian and United States dollar will be consistent with the Company's expectations, that there will be no significant disruptions affecting operations, and that prices for key mining and construction supplies, including labour, will remain consistent with the Company's expectations. The forward-looking statements are not guarantees of future performance. The Company disclaims any obligation to update or revise any forward-looking statements, whether as a result of new information, events or otherwise, except as expressly required by law. Readers are cautioned not to put undue reliance on these forward-looking statements.

ⁱ Non-IFRS measure. Please refer to NI 43-101 technical report titled, "Feasibility Study Incorporating the Life of Mine Plan for Lac des Iles Mine" available at www.nap.com and www.sedar.com.

Contact

[North American Palladium Ltd.](#)

Investor Relations

416-360-7374

IR@nap.com