



North American Palladium Ltd.



Investor Presentation

June 2013

# Forward Looking STATEMENTS



Certain information included in this presentation constitutes 'forward-looking statements' within the meaning of the 'safe harbor' provisions of the United States Private Securities Litigation Reform Act of 1995 and Canadian securities laws. The words 'expect', 'believe', 'will', 'intend', 'estimate', 'forecast', and similar expressions identify forward-looking statements. Such statements include, without limitation, any information as to our future exploration, financial or operating performance, including: the Company's forward looking production guidance, projected capital expenditures, operating cost estimates, project timelines, mining and milling rates, the methods by which ore will be extracted, projected grades, mill recoveries, and other statements that express management's expectations or estimates of future performance. 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 press release, which may prove to be incorrect, include, but are not limited to: metal prices assumptions, Canadian and U.S. dollar exchange rate assumptions, that there will be no significant disruptions affecting operations, that prices for key mining and construction supplies, including labour and transportation costs, will remain consistent with the Company's expectations, that the Company's current estimates of mineral reserves and resources are accurate, and that there are no material delays in the timing of ongoing development projects. The forward-looking statements are not guarantees of future performance. The Company cautions the reader that such forward-looking statements involve known and unknown risks 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, foreign exchange rates or operating costs may differ from management's expectations, uncertainty of mineral reserves and resources, inherent risks associated with mining and processing, the risk that the Lac des Iles mine may not perform as planned and that the Offset Zone and other properties may not be successfully developed, and uncertainty of the ability of the Company to obtain financing. For more details on the factors, assumptions and risks see the Company's most recent Form 40-F/Annual Information Form on file with the U.S. Securities and Exchange Commission and Canadian provincial securities regulatory authorities. 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.

**All dollar amounts are in Canadian currency unless otherwise stated, all references to production refer to payable production, and all reference to tonnes refer to metric tonnes.**

*U.S. investors are encouraged to refer to the "Cautionary Note to U.S. Investors Concerning Estimates of Measured, Indicated and Inferred Resources" in the appendix.*

# NAP's Investment PROPOSITION



## **Clear Growth Strategy to Increase Production & Lower Cash Costs**

LDI mine expansion offers production growth with a decreasing cash cost profile and expanding operating margins

## **Leverage to Rising Palladium Prices**

As one of only two primary palladium producers in the world, LDI is uniquely positioned to benefit from the positive supply & demand fundamentals (driven by constrained mine supply & rising global vehicle production)

## **Attractive PGM Investment Jurisdiction**

Compared to South African peers, NAP operates in a stable political landscape, with low geopolitical risk and moderate cost inflation

## **Significant Development & Exploration Upside**

Upside complimented by excess mill capacity, existing infrastructure & permits, which gives NAP potential to convert exploration success into production and cash flow on an accelerated timeline

## **Operational Expertise Reduces Operating Risk**

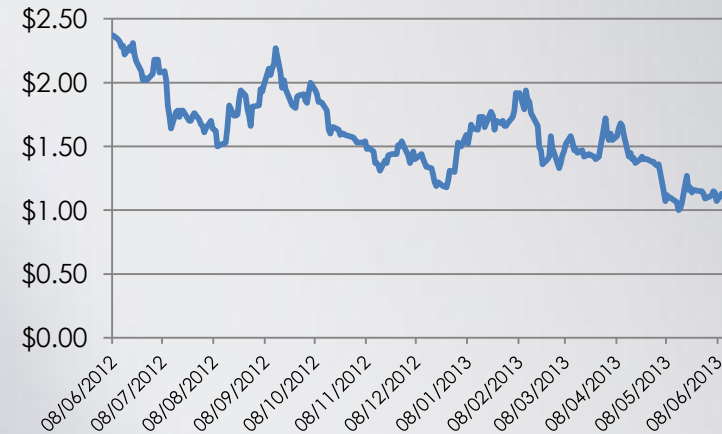
New senior executive team appointed in Q1, 2013 has a strong track record in mining operations

# Market Statistics

## COMPELLING ENTRY POINT



<b>SECURITY SYMBOLS</b>	NYSE MKT: PAL TSX: PDL TSX: PDL.DB
<b>MARKET CAPITALIZATION</b>	US\$201 M
<b>SHARE PRICE</b>	US\$1.13
<b>SHARES OUTSTANDING</b>	178 M
<b>52-WEEK HIGH/LOW</b>	US\$2.39/\$0.96
<b>3-MONTH AVERAGE TRADING VOLUME</b>	NYSE MKT: 2.1 M TSX: 0.3 M










- |  |   |  |
|--|---|--|
| 1. <b>CIBC</b> ,<br>Leon Esterhuizen           | 6. <b>Mackie Research</b> ,<br>Matt O'Keefe | 11. <b>Scotia</b> ,<br>Leily Omoumi            |
| 2. <b>Cormark</b> ,<br>Edward Otto             | 7. <b>Macquarie</b> ,<br>Daniel Greenspan   | 12. <b>Stifel Nicolaus</b> ,<br>George Topping |
| 3. <b>Credit Suisse</b> ,<br>Nathan Littlewood | 8. <b>Octagon</b> ,<br>Annie Zhang          |  |
| 4. <b>Euro Pacific</b> ,<br>Heiko Ihle         | 9. <b>Raymond James</b> ,<br>Alex Terentiew |  |
| 5. <b>GMP</b> ,<br>Andrew Mikitchook           | 10. <b>RBC</b> ,<br>Sam Crittenden          |  |

### TOP INSTITUTIONAL SHAREHOLDERS

1. Kaiser-Francis Oil (10.8%)
2. Weiss Asset Management (9.5%)
3. Franklin Advisers (3.3%)
4. TFS Capital (2.8%)
5. Mackenzie Financial (2.7%)
6. T. Rowe Price Associates (2.5%)
7. AllianceBernstein (1.5%)
8. Earth Resource Investment (1.4%)
9. AGF Investments (1.1%)

# Financial POSITION



-  C\$23.5 M in cash as at Mar. 31, 2013
-  C\$1.2 M in working capital as at Mar. 31, 2013
-  C\$43 M convertible debentures (6.15% interest, C\$2.90 conversion price, mature on Sept. 30, 2017)
-  US\$60 M operating line (fully utilized at Mar. 31, 2013, extended until July 4, 2014)
-  C\$15 M capital leases
-  US\$130 M senior secured term loan from Brookfield closed on June 7, 2013 (15% interest, due June 7, 2017)
-  C\$20 M private placement in flow through shares (fully subscribed, expected to be completed by June 19 & July 23, 2013)





North American Palladium Ltd.



Investment Case for  
**PALLADIUM**

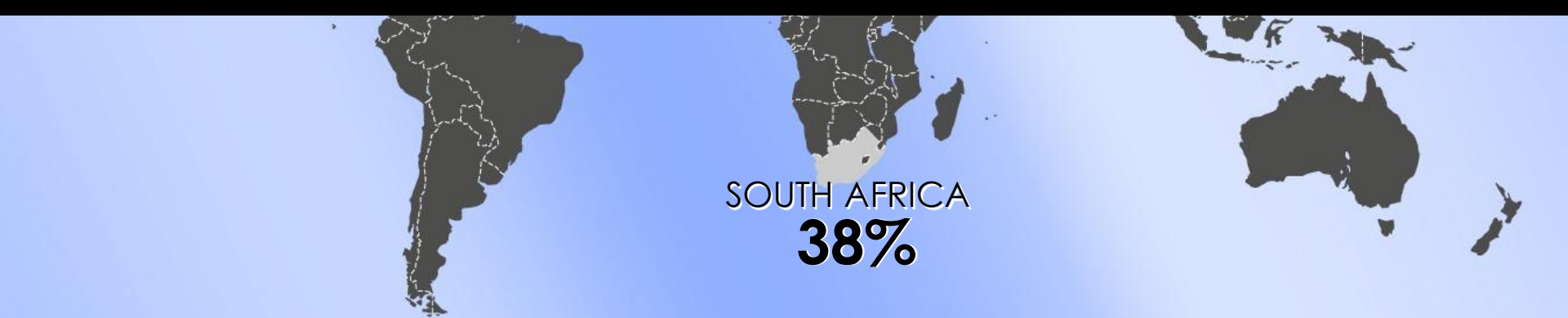
# Palladium Market

## MINE SUPPLY



**ONLY 6.5 M oz. ANNUAL PRODUCTION WORLDWIDE**

**~80% OF GLOBAL MINE SUPPLY COMING FROM HIGH-RISK JURISDICTIONS**



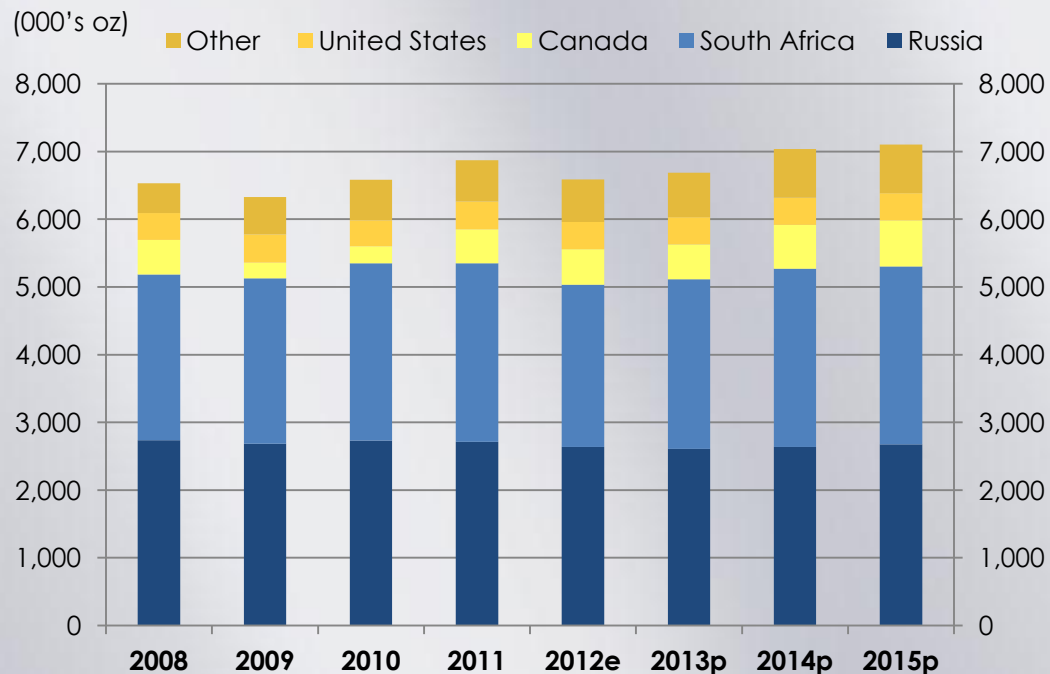
### Notes:

1. Source: Johnson Matthey, May 2013 (estimates for 2012 supply)
2. Other producing countries (~7%) include Zimbabwe, Australia, Botswana, China, Serbia and Montenegro.
3. Excludes secondary recycling supply of 2.2 M oz. and ~250,000 oz. From Russian stock sales.

# Palladium Market MINE SUPPLY



## Constrained Mine Supply From Major Producers



Source: CPM Group, May 2013

### Notes:

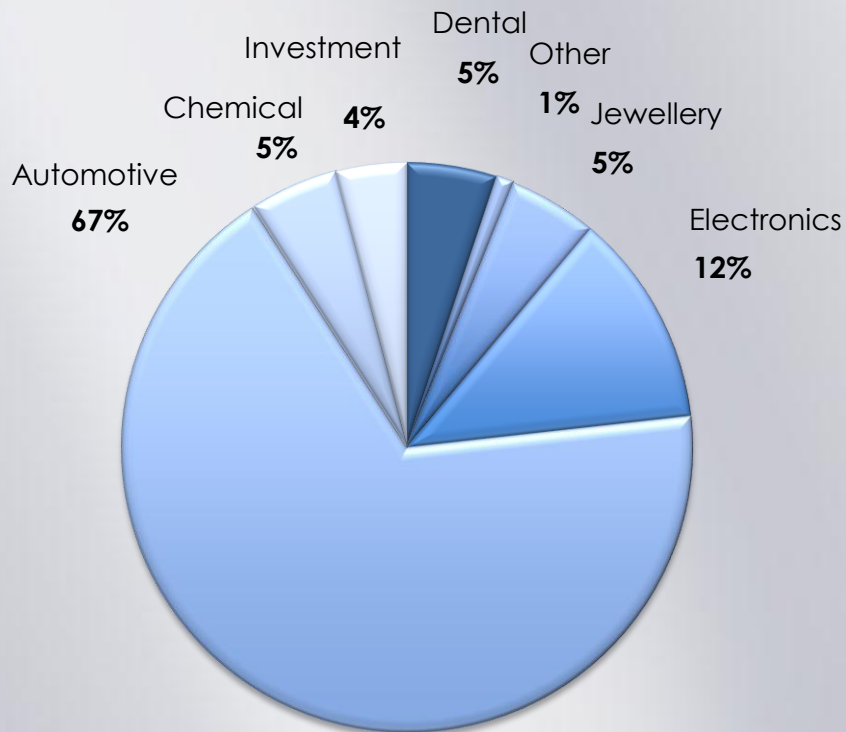
1. Russian supply is entirely from Norilsk Nickel, which produces palladium as a by-product from nickel production.
2. South African supply includes the major platinum producers who produce palladium as a by-product from platinum production.

- 2012 global supply was down 11% YoY - lowest level since 2002
- Moved into a deficit of 1.07 M oz (11%) in 2012
- South African production particularly challenged by:
  - Deeper mines
  - Power/water limitations
  - Higher operating costs
  - Geopolitical risks
  - Shortages of skilled labour
  - Strengthening of currencies
  - Strikes & other stoppages
- Considering the recent supply disruption in South Africa & a contraction of underlying output in Russia, the future production forecasts are expected to be challenged

# Palladium Market DEMAND



**2012 Gross Demand: 9.9 M oz.**

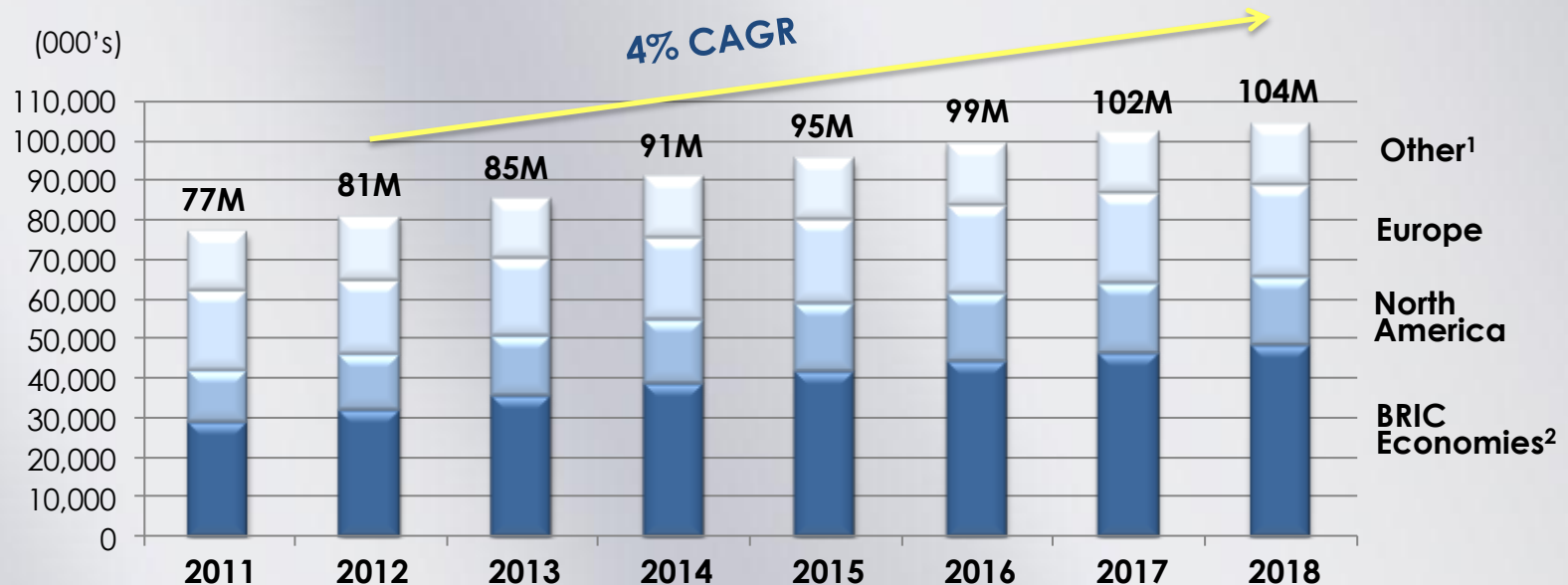


- Demand diversified by geography & end market
- Strongest demand growth in regions outside of North America, Europe and Japan – BRIC economies
- Demand from automotive industry reached a new high of 6.62 M oz in 2012, driven by:
  - Recovering car output in Japan after the natural disasters of 2011
  - Further growth in China
  - Boom in new registrations in North America as consumer confidence and economic activity continued to improve

# Palladium Market DEMAND FROM AUTO SECTOR



## Global Light Vehicle Production Forecast



Source: IHS Automotive, February 2012

1. Other includes: Japan, Korea, Middle East and Africa

2. BRIC Economies include: Greater China, South America and South Asia

- Global vehicle production biggest source of palladium demand
- Light vehicle production is forecasted to increase to over 100 M units by 2017
- Strong growth to +100 M units by 2017 driven by BRIC economies

# Palladium Market FABRICATION DEMAND



## Adoption of Stricter Emission Control Standards

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
<b>Europe</b>	Euro IV				Euro V					Euro VI			
<b>China</b>	Euro III		Euro IV			Euro V							
<b>China</b>	Euro II		Euro III			Euro IV							
<b>India</b>	Euro III		Euro IV										
<b>India</b>	Euro II				Euro III								
<b>Russia</b>	Euro I	Euro II		Euro III		Euro IV			Euro V				
<b>USA</b>	Tier 2 & LEV II										Tier 2 & LEV III		
<b>Brazil</b>	Prconve 3		Prconve 4		Prconve 5			Prconve 6					

Source: CPM Group, May 2013

- Emerging economies have adopted emission control standards that mandate the use of catalytic converters
- Advancing to a higher level of emission controls results in higher PGM loadings in the catalytic converter
- Tightening emission control regulations for heavy-duty trucks

# Use of Palladium in CATALYTIC CONVERTERS



## Vast majority of 2020 cars still projected to be gas and diesel

### Gasoline Engines

- Use +90% palladium (of total required PGM content)

### Diesel Engines

- Historically used platinum due to technical requirements
- Currently use 30% palladium, with scope to increase to 50% due to advent of low sulphur diesel fuel



### Hybrids & Other New Forms

- Neutral impact on PGM use
- Gasoline hybrids tend to use as much palladium as normal gasoline engines
- Currently account for only 1% of global cars sales<sup>1</sup>
- Forecasted to be 14% of overall market by 2020<sup>2</sup>

### Electric

- No requirement for catalytic converters
- Challenged by lack of infrastructure to recharge, high costs, long charging periods and short driving range
- Forecasted to account for only 2% of global car sales by 2020<sup>2</sup>

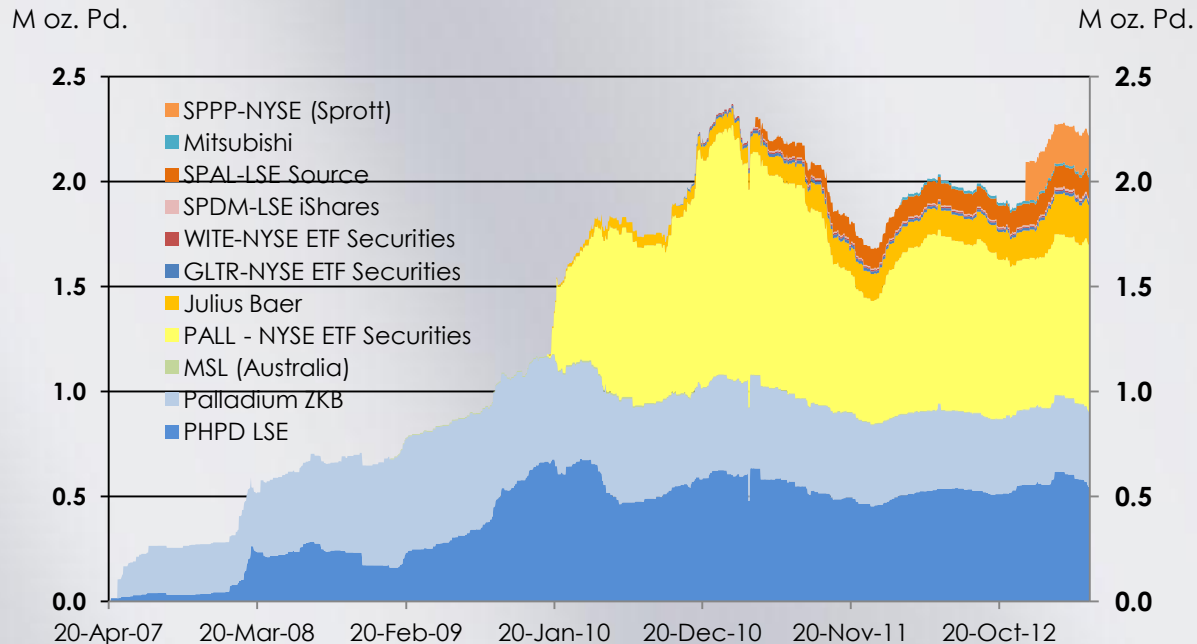
1. CPM Group, June 2010

2. Stefan Bratzel, director of the Centre of Automotive Management in Germany; as reported in Mitsui Global Precious Metals "Pole Position" Report, June 2010

# Palladium Market INVESTMENT DEMAND



## Exchange Traded Funds' Physical Palladium Holdings



- Large increase in palladium investment demand
- Investment demand driven by supply/demand fundamentals for palladium -- *constrained mine supply and growth in global vehicle production*

# Palladium Market PRICE PERFORMANCE



## 20-Year Historic Price Performance (US\$/oz)



**Historic High:** US\$1,090 (2001)

**2012 Average Price:** US\$640

**Recent Price:** US\$768 (June 10, 2013)

## Average Annual Forecasts (US\$/oz)

Firm	As Of	2013	2014	2015
Intesa Sanpaolo SpA	05/06/13	\$750	\$800	\$850
LBBW	05/06/13	\$740		
Prestige Economics LLC	04/29/13	\$749	\$850	
Barclays PLC	04/26/13	\$748	\$795	\$900
Commerzbank AG	04/24/13	\$735	\$920	
Citigroup Inc	04/23/13	\$810	\$950	\$925
Toronto-Dominion	04/19/13	\$788	\$905	
Cantor Fitzgerald LP	04/18/13	\$775	\$880	\$900
Standard Chartered Bank	04/15/13	\$798	\$950	\$800
China International Capital	04/15/13	\$710	\$800	
Societe Generale SA	04/11/13	\$800	\$900	\$1,000
Credit Suisse Group AG	04/03/13	\$770	\$880	\$950
RBC Capital Markets	03/04/13	\$750	\$850	\$850
CPM Group	01/14/13	\$682	\$753	
Deutsche Bank AG	01/08/13	\$713	\$800	\$900
<b>AVERAGE</b>		<b>\$755</b>	<b>\$860</b>	<b>\$897</b>



North American Palladium Ltd.



Investment Case For  
**NAP**

# LDI Mine & Mill Complex

## A WORLD CLASS ASSET



- Located north of Thunder Bay, Ontario, Canada
- One of only two primary palladium producers in the world
- Deposit is unique in the world: high palladium concentration, broadly disseminated mineralization vs. narrow vein
- Established palladium producer since 1993
- Currently undergoing an expansion to increase production and reduce cash costs per ounce
- Goal to increase annual palladium production to +250,000 ounces at significantly reduced cash costs under US\$300 per ounce
- 15,000 tpd mill has excess capacity available for production growth (currently operating at 35% capacity)
- Significant exploration upside identified on the LDI property
- Strong safety record



# Ongoing Review of **OPERATIONS**



## Short-term focus:

- Strategic mine planning (evaluating new ore sources)
- Fleet reduction
- Standardizing ground control support
- Waste haulage reduction with open stopes
- Reduction of contracting staff

## Medium-term focus:

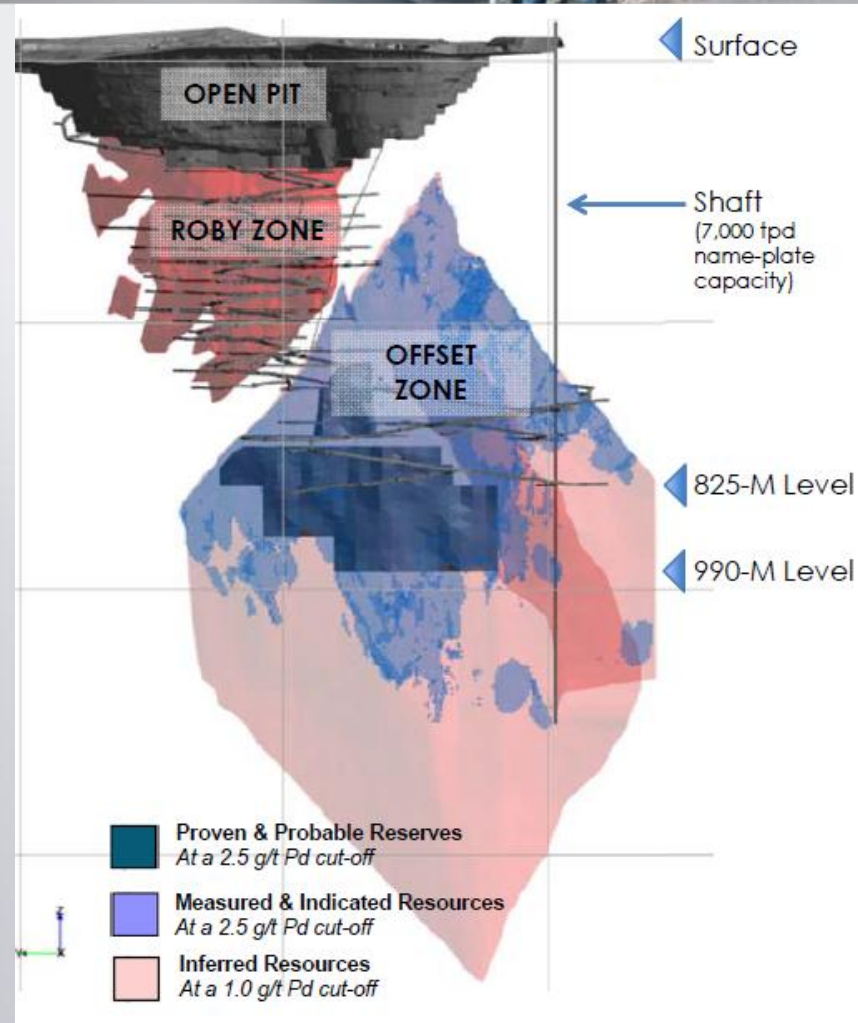
- Phase II plans
- Energy savings
- Tailings footprint reduction
- Material management & inventory reduction
- Size of drifts
- Development footprint reduction



# LDI Mine Expansion PLAN FOR GROWTH



- Approx. \$328.2 M spent to date on mine expansion (Q4, 2010 – Q1, 2013)
- Phase I development in 2013 includes:
  - Sinking a shaft to the 825-metre level to transition underground operations from mining via ramp to mining via shaft
  - Setting up underground infrastructure to mine the Offset Zone using a high volume bulk mining method (long-hole stoping with primary & secondary stoping blocks) - this includes expanding the ramp, building new mine levels, and setting up mining stopes
- Through the utilization of the shaft & bulk mining method, operations are expected to benefit from increased mining rates & decreased operating costs
- **Targeting production via shaft by end of Q3, 2013**
- Phase II plans & timing under review



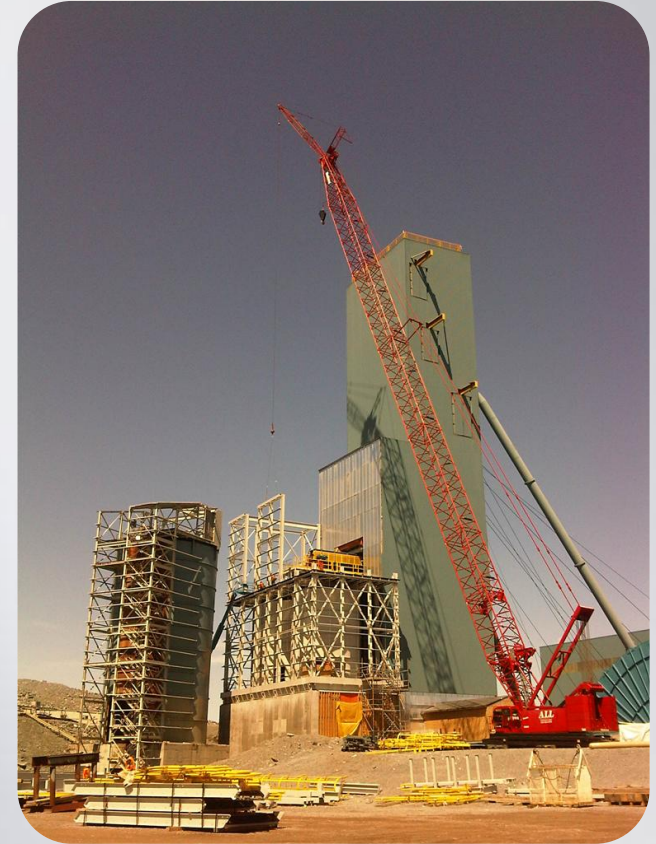
*The underground design schematic of LDI, showing the deposit and underground ramp infrastructure, looking east. Offset Zone remains open to the west, south & at depth.*

# LDI Mine Expansion RECENT UPDATE



## Recent development highlights:

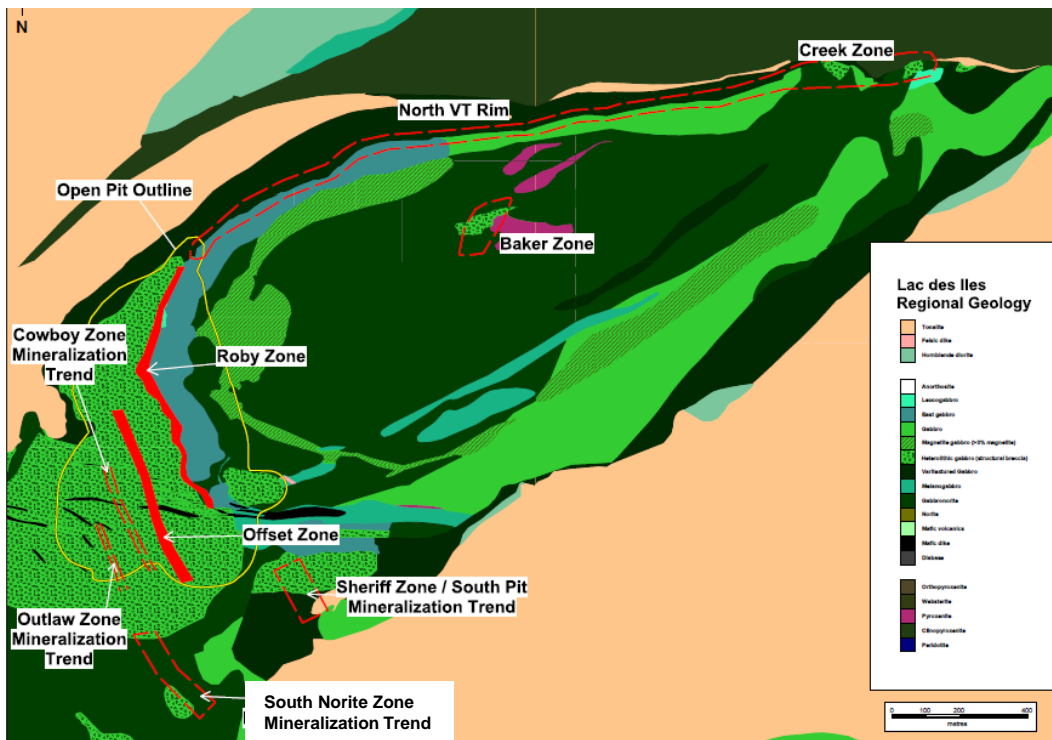
- Shaft sinking progressing on schedule:
  - As of June 3, shaft sinking was at an approximate depth of 755 m below surface (92% completed of the total 825 m planned for Phase I)
- Production hoist is fully operational & installation of the main skip dump is in progress
- First Offset Zone stope has been mined out; production commenced in second stope
- Development of additional mining stopes experienced delays in Q1, but is in progress
- Ramp extension reached the 825-m level depth & shaft station has been excavated
- Major shaft construction items outstanding include completion of the 740 m level and 780 m level loading pocket and spillage pockets and change-over to production (rope-up production hoist, align skips and guides)
- Phase II plans & timing under review; to consider a change in bulk mining method



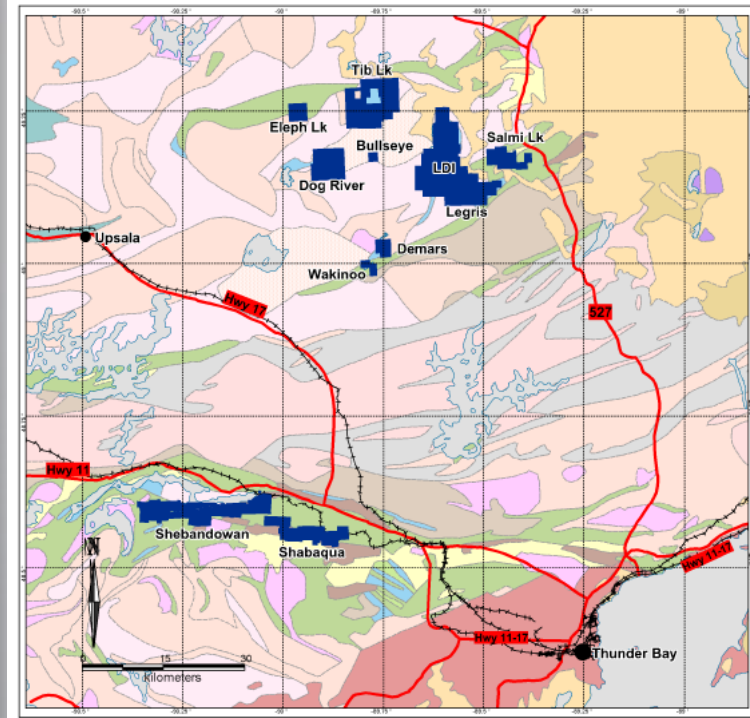
# LDI Property EXPLORATION UPSIDE



## Near-mine land package



## 62,000-acre regional land package



- LDI represents a rare palladium-rich asset with excellent infrastructure
- LDI complex has only been drilled in detail in a 1km x 1km area & remains largely underexplored
- Multiple targets identified for follow up exploration (surface & underground)
- Regional land package covers the most prospective mafic complexes in the area (all PGM properties are less than 30 km from LDI mill)

# Plan: **PRODUCE MORE, FOR LESS**



**Transition to shaft mining**



**Leverage existing infrastructure**



**Realize exploration upside**

# Compelling INVESTMENT OPPORTUNITY



**LEVERAGE** TO RISING PALLADIUM PRICES



**CLEAR STRATEGY** TO INCREASE  
PRODUCTION & LOWER CASH COSTS



**ATTRACTIVE** PGM INVESTMENT  
JURISDICTION

**UPSIDE** IN EXPLORATION & DEVELOPMENT

# Shareholder **INFORMATION**



## North American Palladium Ltd.

North American Palladium's vision is to become a low cost, mid-tier precious metals company operating in mining friendly jurisdictions. NAP is an established precious metals producer that has been operating its flagship Lac des Iles mine (LDI) located in Ontario, Canada since 1993. LDI is one of only two primary producers of palladium in the world, and is currently undergoing a major expansion to increase production and reduce cash costs per ounce. NAP's experienced management and technical teams have a significant commitment to exploration and are dedicated to building shareholder value.

Corporate Office: **Royal Bank Plaza, South Tower**  
200 Bay St., Suite 2350  
Toronto, ON M5J 2J2

Security Symbols: NYSE MKT– **PAL**  
TSX – **PDL, PDL.DB**

Website: **[www.nap.com](http://www.nap.com)**

Investor Relations: **Camilla Bartosiewicz**  
Director, Investor Relations & Corporate Communications  
[camilla@nap.com](mailto:camilla@nap.com)  
416-360-7374



North American Palladium Ltd.

Appendices &  
**FURTHER INFORMATION**

# Senior MANAGEMENT



## **Phil du Toit – President & CEO**

Mr. du Toit is an accomplished mining executive with a proven track record for executing on his management mandates throughout his career. Mr. du Toit brings significant project management expertise to the CEO role, developed during his 37 years of global experience in the mining industry which included senior roles for some of the world's leading mining companies, and the successful development of multiple large capital projects. Recently, Mr. du Toit served as Executive Vice President and Head of Mining Projects and Exploration for ArcelorMittal, the world's leading integrated steel and mining company, where he was responsible for mining strategy, exploration, project and business development. His experience also includes serving as interim CEO of Baffinland Iron Mines Corp., as well as having held various senior management positions for Vale, Diavik Diamond Mines (a subsidiary of Rio Tinto plc), Voest Alpine Inc., and Gencor Ltd. He holds a Bachelor of Science degree in Civil Engineering from the University of Pretoria in South Africa.



## **Dave Langille – CFO**

Mr. Langille is a seasoned finance executive with over 26 years of international public company experience. He brings a wealth of international financial expertise to NAP, notably a solid track record of optimizing operations to improve operating margins, along with merger and acquisition experience, and raising capital through a broad range of capital market products. Most recently, Mr. Langille served as the CFO and Vice President, Finance of Breakwater Resources Ltd. Prior to this, he served in senior financial positions for various public companies, including Lindsey Morden Group Inc., Capital Environmental Resource Inc., Cott Corporation, and TVX Gold Inc. Mr. Langille received an Honours Bachelor of Business Administration from Wilfrid Laurier University in Waterloo, Ontario, Canada in 1985, and has been a member of the Institute of Chartered Accounts of Ontario and the Society of Management Accountants of Ontario since 1987.



## **David Peck – Head of Exploration**

Dr. Peck is a Professional Geoscientist with nearly 30 years of exploration and research experience specializing in magmatic Ni-Cu-PGE ore deposits. Dr. Peck holds global recognition as an expert in PGE exploration after serving as a senior technical and strategic consultant to several public and private companies and having worked on exploration and mining projects in more than a dozen countries. He was directly involved in several significant magmatic Ni-Cu-PGE discoveries in Canada and overseas. Prior to joining NAP, Dr. Peck served as President and Senior Technical and Strategic Consultant at Revelation Geoscience Ltd., and prior to this, he served as Global Nickel Commodity Leader at Anglo American plc, a Senior Geologist for Falconbridge Ltd., a Senior Mineral Deposits Geologist with the Manitoba Geological Survey, held various academic roles in Canadian universities, and was the technical lead on a multi-year mineral potential study funded by the Ontario Geological Survey. He has authored numerous public presentations and government and academic publications addressing his area of specialization.

# Board of DIRECTORS



## **Robert J. Quinn – Chairman (Director since 2006)**

Mr. Quinn was first appointed to the Board of Directors of the Company in June 2006. A founding partner of the Houston mining transactional law firm Quinn & Brooks LLP, Mr. Quinn has over 30 years of legal and management experience, including as Vice President and General Counsel for Battle Mountain Gold Company. He has extensive experience in M&A transactions, corporate governance, public disclosure, governmental affairs, environmental law and land management. Mr. Quinn has a Bachelor of Science in Business Administration from the University of Denver, a Juris Doctorate degree from the University of Denver College of Law and has completed two years of graduate work in mineral economics at the Colorado School of Mines.



## **Steven R. Berlin – Retired Financial Executive (Director since 2001)**

Mr. Berlin was appointed to the Board of Directors of the Company in February 2001, and is also a director of Orchids Paper Products, an AMEX listed company. At the end of 2005, Mr. Berlin retired from his position as Vice-President of Kaiser Francis Oil Company (KFOC) where he worked part-time for two years following four years full-time as Vice-President and Chief Financial Officer. Prior to joining KFOC, Mr. Berlin taught at the University of Tulsa for three years where he also served a year as acting associate Dean of the College of Business and acting Director of the School of Accounting. Before joining the University of Tulsa, Mr. Berlin spent 25 years with Citgo Petroleum Corporation, where he retired as Senior VP Finance and Administration and Chief Financial Officer. Mr. Berlin has a bachelor's degree from Duquesne University, an MBA from the University of Wisconsin Madison and has completed the Executive Management program at Stanford University.



## **C. David A. Comba – Retired Mining Executive (Director since 2006)**

Mr. Comba was first appointed to the Board of Directors of the Company in March 2006. He has over four decades of experience as an exploration advocate and senior mining executive. As Chief Exploration Geologist of Falconbridge Limited in Sudbury, Ontario, he led the team that discovered the high-grade footwall deposit that allowed the Thayer Lindsley mine to go into production. Prior to its takeover by Kinross Gold Corporation, Mr. Comba was Vice-President, Exploration of Falconbridge Gold Corporation. Following the takeover, he became President and Chief Executive Officer of Pentland Firth Venture Ltd., a Kinross-controlled junior gold exploration company listed on the TSX. Pentland's work added the first couple of million ounce resource to the Hammond Reef property Atikokan, ON. Mr. Comba was Director of Issues Management with the Prospectors and Developers Association of Canada from 1998 to 2005, during which time he led the successful lobby effort for the re-introduction of enhanced or "super" flow-through shares. Mr. Comba has Bachelor's and Master's degrees in geology from Queen's University in Kingston, Ontario.

# Board of DIRECTORS (CON'T)



**Andre Douchane – President and Chief Executive Officer, Mahdia Gold Corp. (Director since 2003)**

Mr. Douchane is a seasoned mining executive with over 40 years of experience in the mining industry with a solid track record of successfully bringing development projects into production. He was appointed to the Company's Board of Directors in April 2003, and served as the President and CEO until January 2006. He has held senior positions with several precious and base metal international mining companies including CEO of THEMAC Resources, President and CEO of Starfield Resources Inc., President and COO of Chief Consolidated Mining Co., and Vice President, Operations of Franco and Euro-Nevada (Newmont Mining Corporation). He holds a Bachelor's degree in Mining Engineering from the New Mexico Institute of Mining and Technology and is a graduate of the Executive Business Program at the Kellogg School of Business in Toronto.



**Greg J. Van Staveren – Strategic Financial Consultant (Director since 2003)**

Mr. Van Staveren was appointed to the Board of Directors of the Company in February 2003. Since September 2001, Mr. Van Staveren has been the President of Strategic Financial Services, a private company providing business advisory services. During this period he has sat on the board of a number of publicly traded companies. Mr. Van Staveren is a Chartered Accountant and a Certified Public Accountant and holds a Bachelor of Math (Honours) degree from the University of Waterloo. From February 1998 until September 2001, Mr. Van Staveren was the Chief Financial Officer of MartinRea International Inc (MRE-TSX), and prior to that he was a partner in the mining group of KPMG, which he joined in 1980, and where he provided accounting, and advisory services to his clients.



**William J. Weymark – President, Weymark Engineering Ltd. (Director since 2007)**

Appointed to the Board of Directors of the Company in January 2007, Mr. Weymark is President of Weymark Engineering Ltd., a Company providing consulting services to businesses in the private equity, construction and resource sector. He is also a director of the VGH & UBC Hospital Foundation Board, and several private companies. Mr. Weymark is also a Member of the Industry Advisory Committee for the Norman B. Keevil Institute of Mining Engineering at the University of British Columbia. Until June 2007, Mr. Weymark was President and CEO of Vancouver Wharves/BCR Marine, a transportation firm located on the west coast of British Columbia. Prior to joining Vancouver Wharves in 1991, Mr. Weymark spent 14 years in the mining industry throughout western Canada working on the start-up and operation of several mines. Mr. Weymark is a Professional Engineer and holds a Bachelor of Applied Science in Mining and Mineral Process Engineering from the University of British Columbia and is a graduate of the Institute of Corporate Directors', Directors Education Program.

# Cautionary Note to U.S. Investors Concerning **MINERAL RESERVES AND MINERAL RESOURCE**



- Mineral reserves and mineral resources have been calculated in accordance with National Instrument 43-101 as required by Canadian securities regulatory authorities. For United States reporting purposes, Industry Guide 7, (under the Securities and Exchange Act of 1934), as interpreted by Staff of the Securities Exchange Commission (SEC), applies different standards in order to classify mineralization as a reserve. In addition, while the terms “measured”, “indicated” and “inferred” mineral resources are required pursuant to National Instrument 43-101, the U.S. Securities and Exchange Commission does not recognize such terms. Canadian standards differ significantly from the requirements of the SEC, and mineral resource information contained herein is not comparable to similar information regarding mineral reserves disclosed in accordance with the requirements of the U.S. Securities and Exchange Commission. U.S. investors should understand that “inferred” mineral resources have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. In addition, U.S. investors are cautioned not to assume that any part or all of NAP's mineral resources constitute or will be converted into reserves. For a more detailed description of the key assumptions, parameters and methods used in calculating NAP's mineral reserves and mineral resources, see NAP's most recent Annual Information Form/Form 40-F on file with Canadian provincial securities regulatory authorities and the SEC.
- Please refer to North American Palladium's most current Annual Information Form and applicable technical reports available on [www.sedar.com](http://www.sedar.com), [www.sec.gov](http://www.sec.gov) and [www.nap.com](http://www.nap.com) for further information.

# LDI Palladium Mine RESERVES & RESOURCES



March 31, 2012

<b>LDI MINERAL RESERVES</b>								
CATEGORY	Cut-off (g/t)	Tonnes (000'S)	Pd (g/t)	Pt (g/t)	Au (g/t)	Ni (%)	Cu (%)	Pd (000's oz)
<b>PROVEN</b>								
Offset Zone	2.5	5,632	4.34	0.30	0.30	0.11	0.08	787
Roby Underground	5.8	420	6.38	0.42	0.34	0.08	0.07	86
Open Pit	1.8	722	1.99	0.21	0.22	0.11	0.10	46
<b>PROBABLE</b>								
Offset Zone	2.5	2,109	4.17	0.30	0.29	0.10	0.08	283
<b>TOTAL RESERVE</b>	-	<b>8,883</b>	<b>4.21</b>	<b>0.30</b>	<b>0.29</b>	<b>0.11</b>	<b>0.08</b>	<b>1,202</b>
<b>LDI MINERAL RESOURCES</b>								
CATEGORY	Cut-off (g/t)	Tonnes (000'S)	Pd (g/t)	Pt (g/t)	Au (g/t)	Ni (%)	Cu (%)	Pd (000's oz)
<b>MEASURED</b>								
Offset Zone	2.5	4,943	4.56	0.33	0.31	0.12	0.10	724
Open Pit	1.8	1,971	2.00	0.24	0.15	0.05	0.07	127
Stockpile		83	1.63	0.17	0.14	0.08	0.06	4
<b>TOTAL MEASURED</b>	-	<b>6,997</b>	<b>3.80</b>	<b>0.31</b>	<b>0.27</b>	<b>0.12</b>	<b>0.10</b>	<b>855</b>
<b>INDICATED</b>								
Offset Zone	2.5	9,557	4.11	0.31	0.29	0.11	0.09	1,262
Roby Underground	5.8	1,269	7.16	0.41	0.33	0.08	0.06	292
Open Pit	1.8	2,565	2.20	0.24	0.18	0.07	0.08	181
Low Grade Stockpile	0.5	13,188	0.97	0.12	0.08	0.06	0.03	411
<b>TOTAL INDICATED</b>	-	<b>26,579</b>	<b>2.51</b>	<b>0.21</b>	<b>0.18</b>	<b>0.08</b>	<b>0.06</b>	<b>2,147</b>
<b>TOTAL MEASURED &amp; INDICATED</b>	-	<b>33,575</b>	<b>2.78</b>	<b>0.23</b>	<b>0.20</b>	<b>0.08</b>	<b>0.05</b>	<b>3,002</b>
<b>INFERRED</b>								
Offset Zone	2.5	13,669	3.59	0.30	0.23	0.09	0.08	1,576
<b>TOTAL INFERRED</b>		<b>13,669</b>	<b>3.59</b>	<b>0.30</b>	<b>0.23</b>	<b>0.09</b>	<b>0.08</b>	<b>1,576</b>

See accompanying Notes on the next page.

# LDI Reserves & Resources

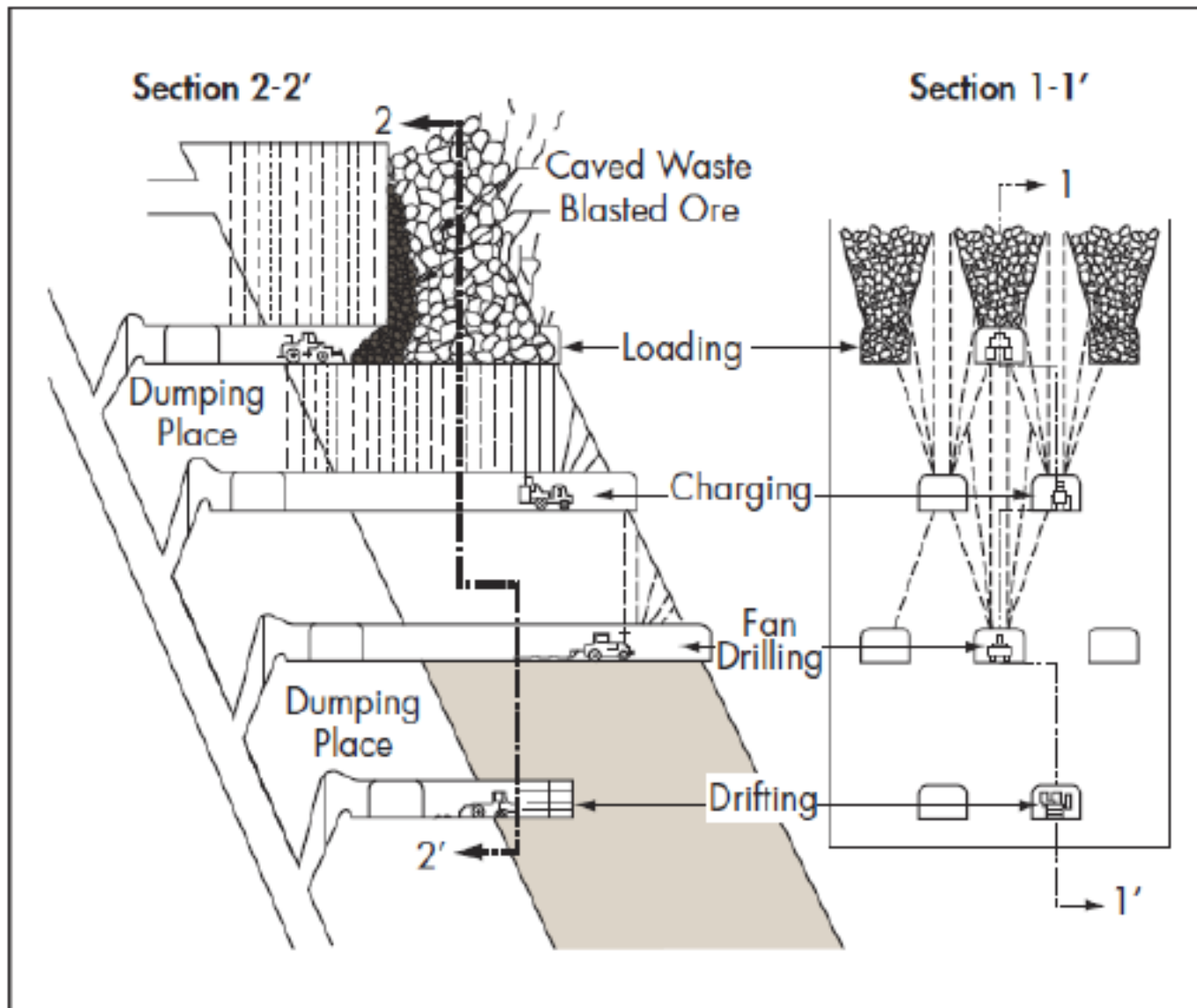
## NOTES



### Notes:

1. Prepared in accordance with NI 43-101 Standards of Disclosure for Mineral Projects and the CIM classification system.
2. Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. Mineral resources are exclusive of the mineral reserves.
3. The mineral resource for the Offset Zone was estimated as of June 30, 2012 by Todd McCracken, P. Geo., of Tetra Tech, an independent QP under NI 43-101. The effective date of the resource is March 31, 2012. The mineral resource calculation uses a minimum 2.5 g/t palladium resource block cut-off. The mineral resource estimate is based on the combination of geological modeling, geostatistics, and conventional block modelling (5 m by 5 m by 5 m blocks). Assay grade capping was determined not to be necessary. The Offset Zone resource models used the ordinary kriging (OK) grade interpolation method within a 3DI block model with mineralized zones defined by wireframed solids. The quality assurance (QA)/quality control (QC) protocols and corresponding sample preparation and shipment procedures for the Offset Zone have been reviewed by Tetra Tech. The following metal price assumptions were used: US\$675/oz palladium, US\$1,675/oz platinum, US\$1,750/oz gold, US\$8.00/lb nickel, and US\$3.50/lb copper. A US\$/CDN\$ exchange rate of US\$1.00 = CDN\$1.00 was also applied.
4. Mineral reserves for the Offset Zone were estimated by Todd McCracken, P. Geo.; William Richard McBride, P. Eng.; Todd Kanhai, P. Eng.; and Philip Bridson, P. Eng. of Tetra Tech, independent QPs within the meaning of NI 43-101. The mineral reserves were estimated from drilling completed to March 31, 2012. Reserves were estimated to the 990 Mine Level (4,490 m elevation), a maximum depth of 1,017.5 m. The following metal price assumptions were used for reserves estimation: US\$675/oz palladium, US\$1,675/oz platinum, US\$1,750/oz gold, US\$8.00/lb nickel, and US\$3.50/lb copper. A US\$/CDN\$ exchange rate of US\$1.00 = CDN\$1.00 was also applied. An average production rate of 3,500 t/d was used to determine the reserves. The following recoveries were used in the assumptions to determine the reserves: 80.45% palladium, 71.30% platinum, 83.97% gold, 43.13% nickel, and 88.55% copper.
5. The mineral resource estimate for the Roby Zone open pit and stockpiles were estimated as of June 30, 2010 by Scott Wilson RPA and updated by David N. Penna, P. Geo., an employee of Lac des Iles Mining Ltd. (LDIM) and a qualified person (QP) under NI 43-101 to reflect: (i) additions to mineral reserves in the Roby Zone as a result of a lower cut-off palladium grade; (ii) depletion from production up to March 31, 2012, and (iii) mineral reserves from the crown pillar (supported by an internal engineering report). The following cut-off grades were used: (i) 1.8 g/t palladium equivalent (PdEq) for the Roby open pit, within an optimized pit shell run below the current pit survey; (ii) 1.9 g/t PdEq for the mine stockpiles; and (iii) 5.8 g/t PdEq for the underground Roby Zone. These cut-off grades were determined under the assumption that production would take place at a rate of 14,000 t/d. Metal price assumptions of US\$350/oz palladium, US\$1,400/oz platinum, US\$850/oz gold, US\$6.50/lb nickel, and US\$2.00/lb copper were used in the estimation of cut-off grade. A US\$/CDN\$ exchange rate of 1.11 was also applied.
6. Numbers may not add due to rounding.


# Mining Method Under Review: **SUB-LEVEL BLOCK CAVE**



Source: Kvapil 1992.

# Palladium Market MARKET DYNAMICS



 The palladium market is expected to remain in a position of undersupply over the 2012 to 2015 period – will allow prices to remain robust

## World Palladium Supply and Demand Forecast

	2009	2010	2011	2012E	2013E	2014E	2015E
<i>(In koz, unless otherwise noted)</i>							
<b>Supply</b>							
Mine Production	6,320	6,613	6,966	6,825	6,925	7,125	7,225
Scrap	1,184	1,454	1,620	1,770	1,980	2,130	2,250
<b>Total Palladium Supply</b>	<b>7,504</b>	<b>8,067</b>	<b>8,586</b>	<b>8,595</b>	<b>8,905</b>	<b>9,255</b>	<b>9,475</b>
<i>Change (YoY %)</i>	<i>(3.2%)</i>	<i>7.5%</i>	<i>6.4%</i>	<i>0.1%</i>	<i>3.6%</i>	<i>3.9%</i>	<i>2.4%</i>
<b>Total Palladium Consumption</b>							
	<b>7,591</b>	<b>8,642</b>	<b>8,740</b>	<b>8,920</b>	<b>9,475</b>	<b>9,790</b>	<b>10,000</b>
<i>Change (YoY %)</i>	<i>(9.5%)</i>	<i>13.9%</i>	<i>1.1%</i>	<i>2.1%</i>	<i>6.2%</i>	<i>3.3%</i>	<i>2.1%</i>
<b>Implied Market Balance</b>	<b>(87)</b>	<b>(575)</b>	<b>(154)</b>	<b>(325)</b>	<b>(570)</b>	<b>(535)</b>	<b>(525)</b>
Stock Releases	1,100	800	800	150	150	--	--
ETF Investment	507	1,038	(514)	--	--	--	--
<b>Implied Residual Balance</b>	<b>507</b>	<b>(813)</b>	<b>1,160</b>	<b>(175)</b>	<b>(420)</b>	<b>(535)</b>	<b>(525)</b>

Source: Thomson Reuters GFMS, LPPM, RBS (Commodity Companion - Truly Precious, May 4th 2012)