



North American Palladium Ltd.



re-engineering the future

# Investor Presentation

September 2009

**William J. Biggar**  
President & Chief Executive Officer





# Forward-Looking Statements

Certain information included in this presentation, including any information as to our future financial or operating performance and other statements that express management's expectations or estimates of future performance, constitute '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' and similar expressions identify forward-looking statements. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties, risks and contingencies. The Company cautions the reader that such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual financial results, performance or achievements of North American Palladium to be materially different from the Company's estimated future results, performance or achievements expressed or implied by those forward-looking statements and that the forward-looking statements are not guarantees of future performance. These statements are also based on certain factors and assumptions. For more details on these estimates, risks, assumptions and factors, 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. In addition, there can be no assurance that the Company's Lac des Iles or Sleeping Giant mines will be successfully restarted or that other properties can be successfully developed. 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 in Canadian currency unless otherwise stated.**



## NAP: An attractive investment



- Delivering on vision to build a diversified mid-tier precious metals company operating in mining-friendly jurisdictions
- World class palladium mine offers significant leverage to rising palladium price
- Renewed commitment to exploration at Lac des Iles
- Near-term gold production at Sleeping Giant mine
- Focused on acquiring additional gold assets to grow gold production to 250,000 ounces
- Experienced management and technical teams
- Strong balance sheet: \$61 M in cash, no debt\*

\*As at June 30, 2009





# NAP: An emerging precious metals producer



## Lac des Iles palladium mine

### LDI palladium mine:

- Flagship mine
- On care and maintenance since late 2008
- Potential for intrinsic growth

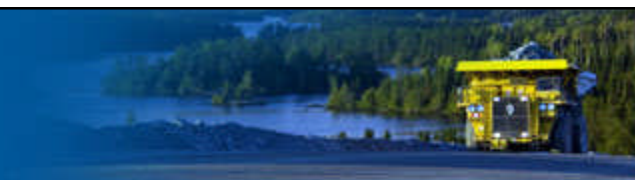
## Sleeping Giant gold mine

### Sleeping Giant gold mine

- In production by Q4 2009
- Significant exploration potential
- Presence in highly prolific Abitibi region of Quebec



## A liquid stock



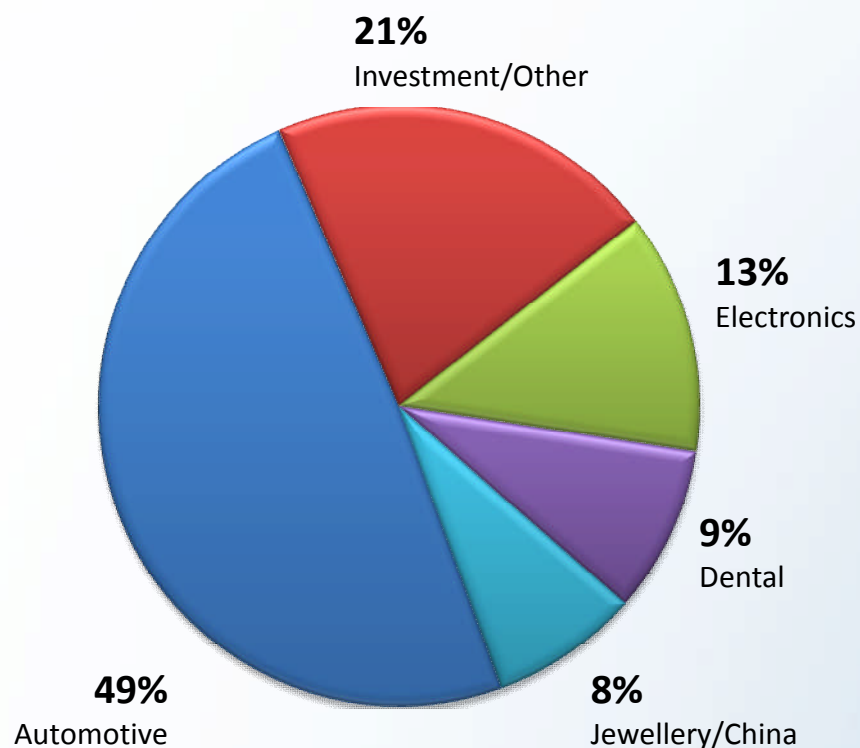
Stock symbol	NYSE Amex – PAL TSX – PDL
Share price	US \$3.13
Shares outstanding	104M
Market capitalization	US \$325M
Three-month average daily trading volume	NYSE Amex – 812,675 TSX – 137,755
2008 high/low 2009 high/low	US\$9.28/\$0.91 US\$3.68/\$0.90
Shareholder base	Institutional – 44.7% Retail – 55.3%
Major shareholder	Kaiser Francis Oil Company (37%)

Information as at September 21, 2009



## Palladium: A key value driver

### PALLADIUM DEMAND BY CATEGORY



- A rare metal: total worldwide production is 6.5 million ounces
- Produced in:
  - Russia (44%)
  - South Africa (38%)
  - North America (14%)
- Use in vehicles is growing, particularly in BRIC economies
- ETFs in Zurich, London, Japan, and soon New York will increase demand

Demand will grow, supply will stagnate

Source: CPM Group





# Palladium market fundamentals

## Limited palladium producing regions and production

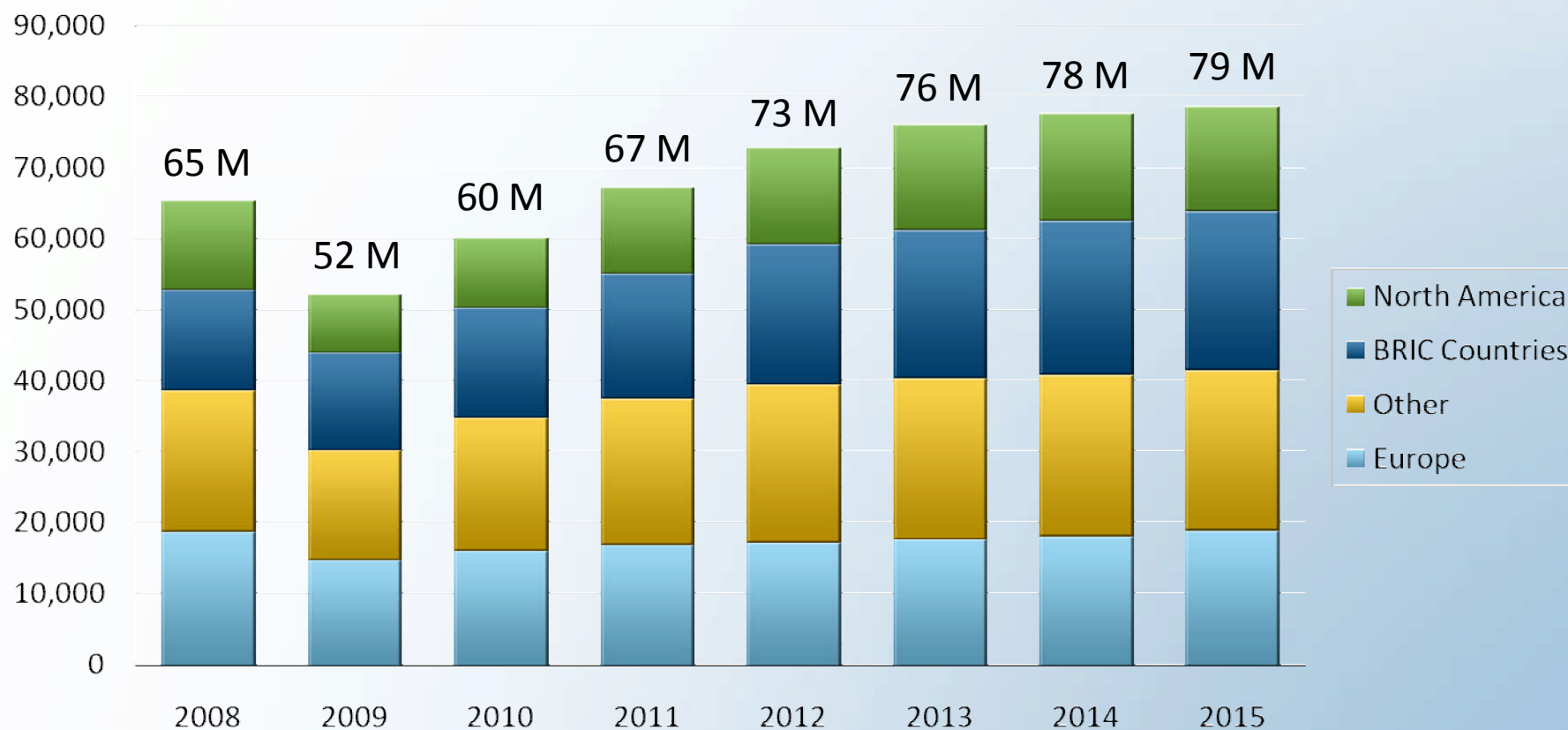




# Palladium market fundamentals

## Global light vehicle production forecast

(000s)



Source: CSM Worldwide, March 2009





# Palladium market fundamentals

## Stricter emission controls equals increased PGM usage

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Brazil	Euro II					Euro III			Euro IV	
Russia	Euro I					Euro II			Euro III	
China (gas)	Euro I			Euro II			Euro III			Euro IV
China (diesel)	Euro I		Euro II				Euro III			Euro IV
India (nation)	Euro I				Euro II					Euro III
India (10 cities)	Euro I		Euro II		Euro III					Euro IV

Source: CPM Group



# Palladium market fundamentals

## Growth in Palladium ETFs



*London*  
**STOCK EXCHANGE**



**NYSE**

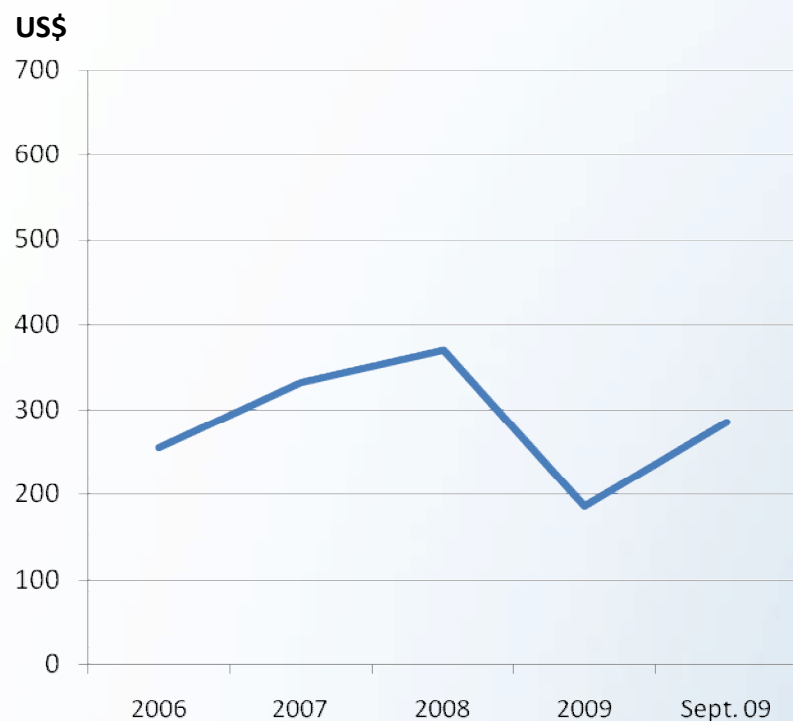
Increasingly viewed as an attractive precious metal  
providing portfolio diversification



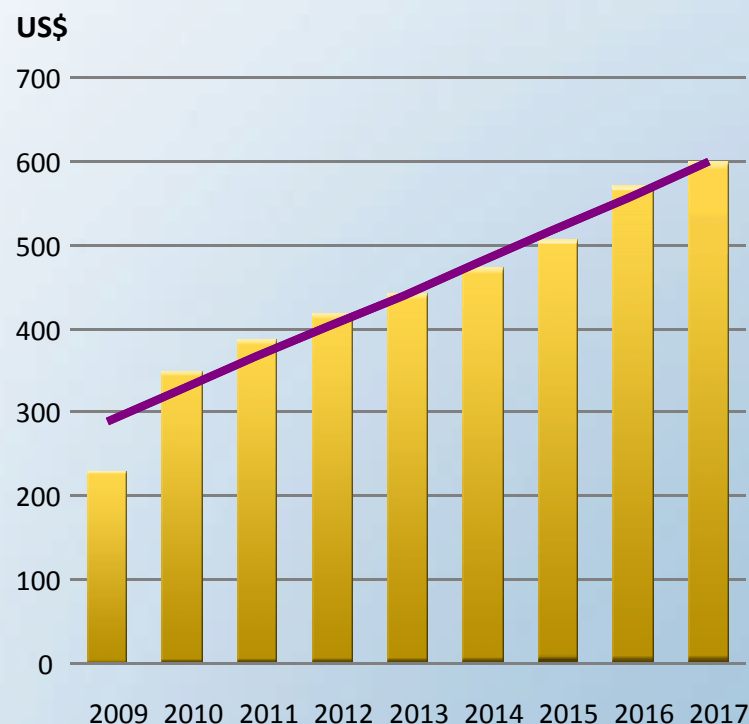
# Palladium price projected to be rising

**Price expected to increase to US \$350 per ounce next year**

**2006-2009 Historic – Average Annual Price**



**2009-2017 Forecast – Average Annual Price**



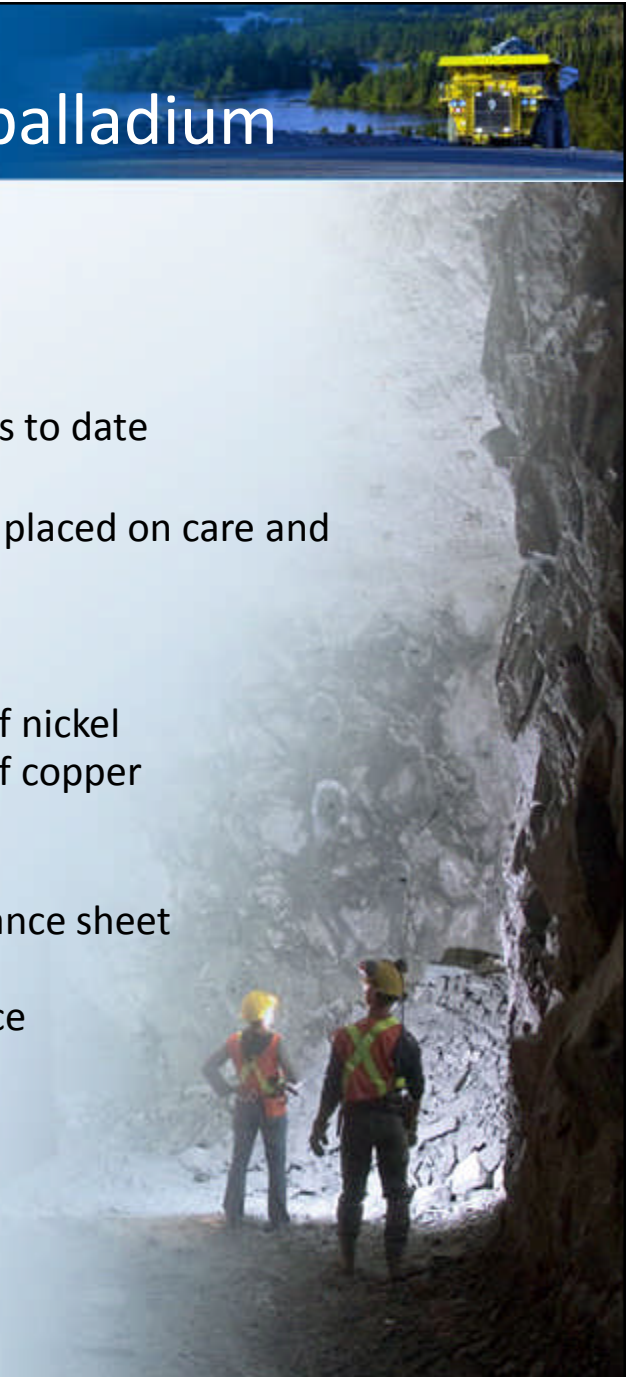
Sources: Thomson One; CPM Group's PGM Long Term Metals Outlook dated April 2009





## Ready to restart with rebound in palladium

- Located north of Thunder Bay, Ontario:
  - Open pit and underground mine
  - Two processing plants
  - \$500 million invested in infrastructure and mineral rights to date
- In production from 1993 to October 2008 when temporarily placed on care and maintenance in response to low metal prices
- Annualized production at time of shut down:
  - 270,000 ounces of palladium
  - 20,000 ounces of platinum
  - 20,000 ounces of gold
  - 3.0 million pounds of nickel
  - 5.6 million pounds of copper
- Decisive action taken to preserve reserves and maintain balance sheet
- Will consider restart once palladium reaches sustainable price of \$300 to \$325 per ounce
- Prepared for quick restart
  - Capex approximately \$4 million
  - Key personnel in place
  - Will take approximately 90 days from go decision to reach full production





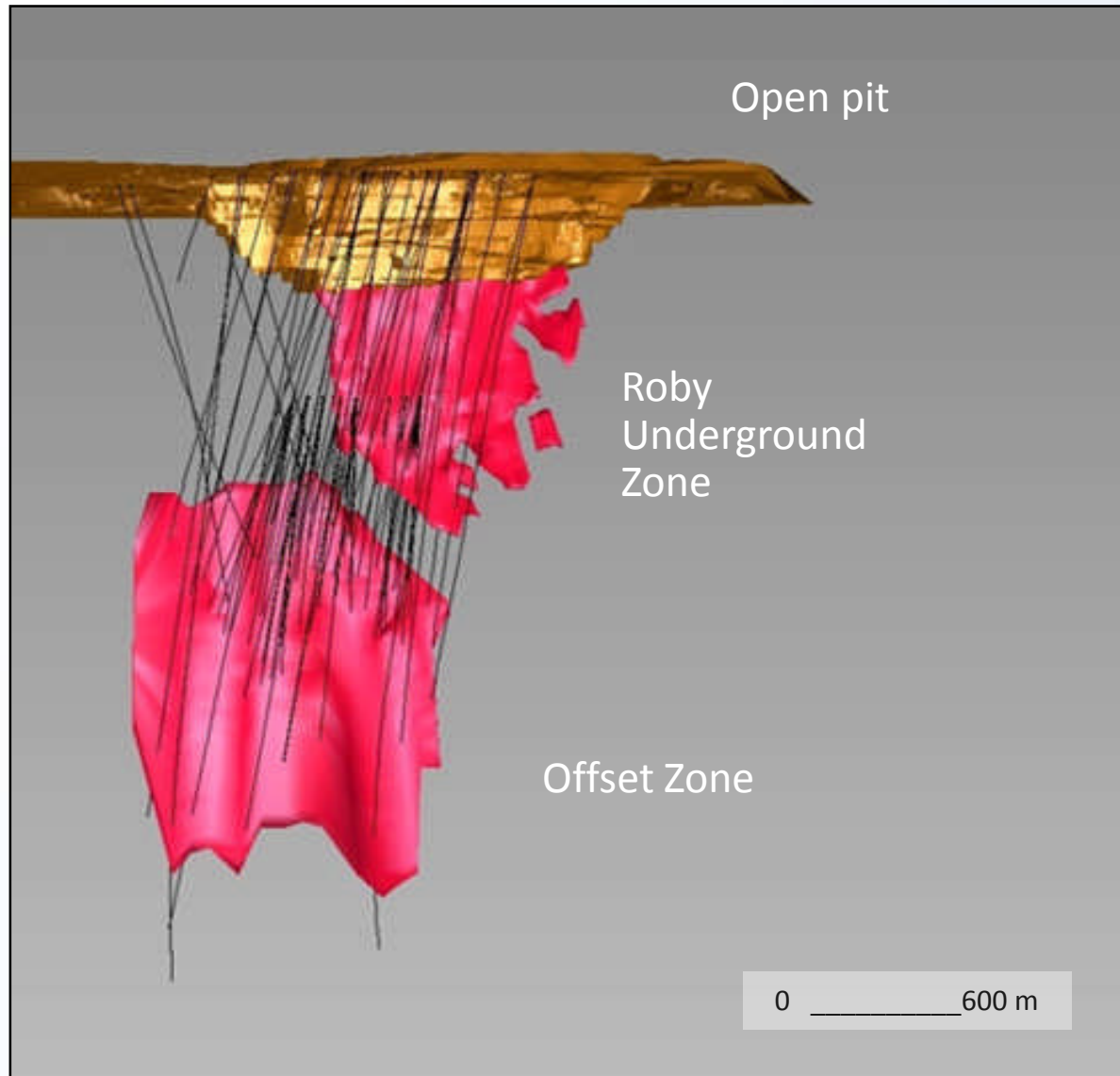
## A new focus on exploration at LDI

- \$7.0 million exploration program underway
- Working to add to 3.7 million ounces of measured and indicated palladium resources\*
- Increase grade of upper portion of Offset Zone
- Discover new resources on surface and underground

\* See cautionary note to U.S. Investors in Appendix.



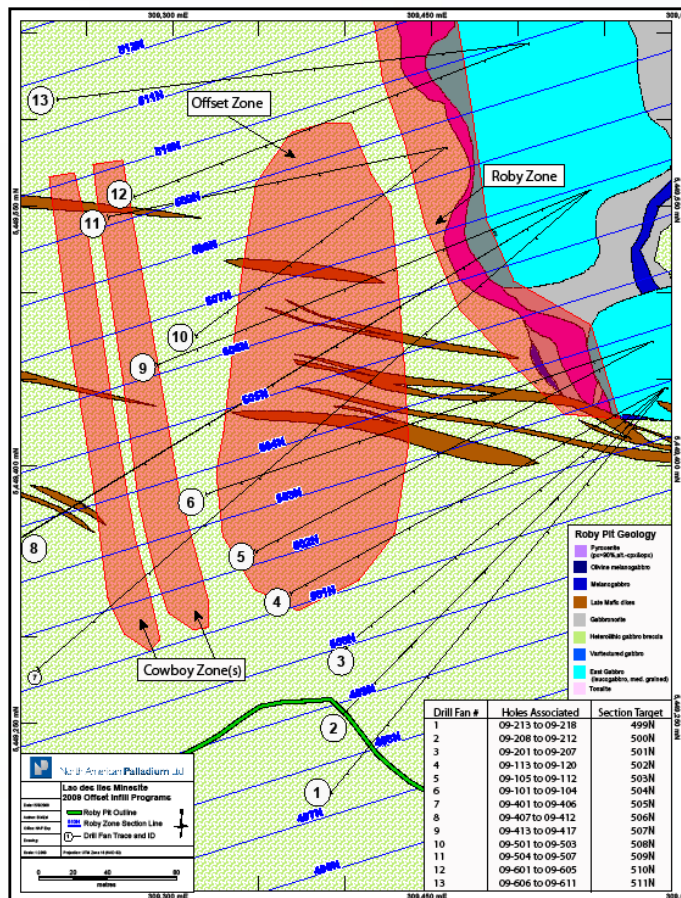
## LDI: A world class mine







# Extending LDI's minelife: Cowboy Zone Discovery

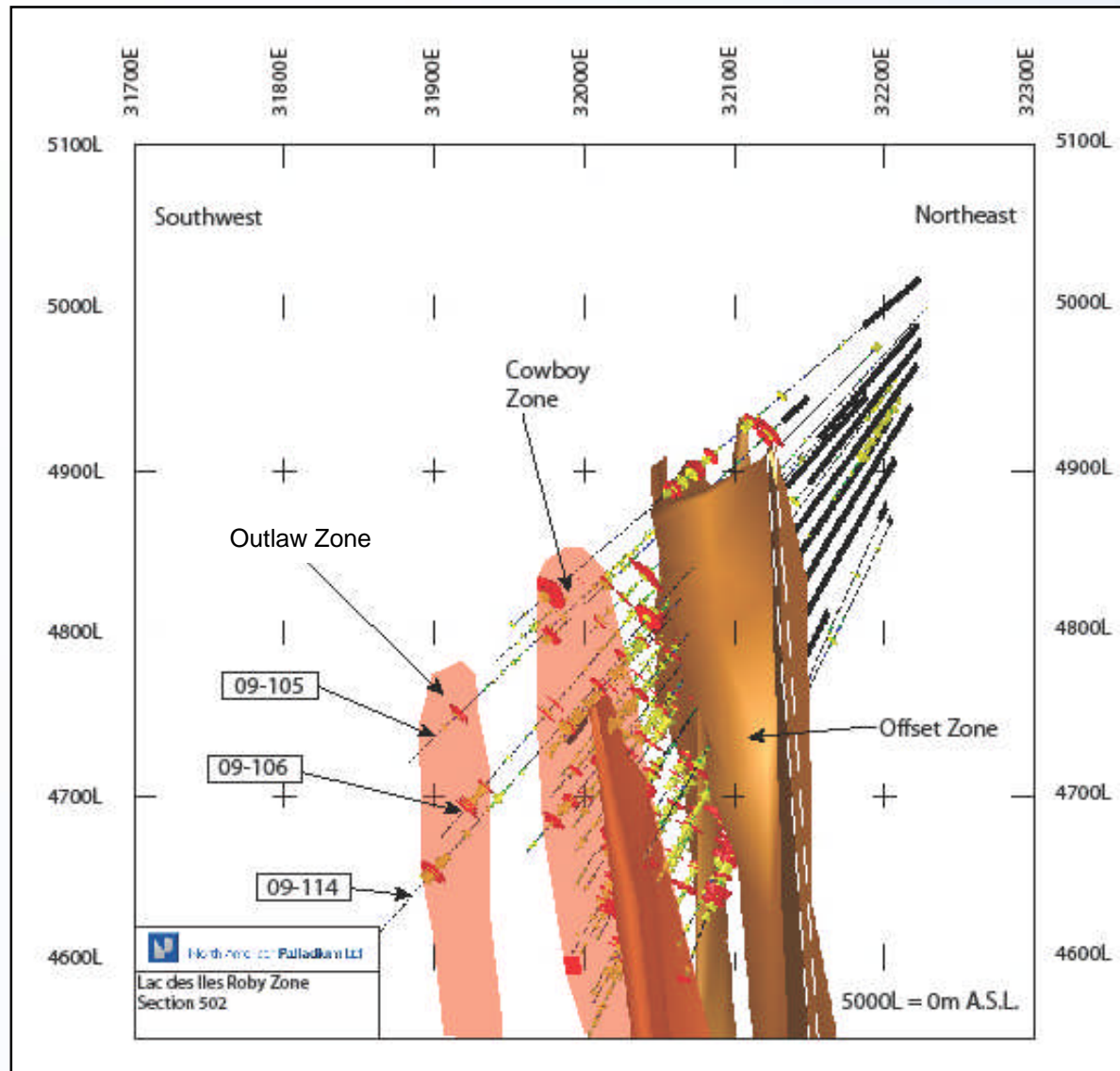


- New underground PGM discovery in June 2009
- Discovered during infill drilling of Offset Zone
- Located 30 to 50 metres from Offset Zone, Cowboy extends 250 metres along strike, 350 metres down dip
- Open in all directions
- Additional drilling underway
- Potential to improve economics

Potential to add at least **10 years** of mine life



## New zone of mineralization discovered





## Building a gold division: Acquiring Sleeping Giant



- A key step in growing NAP:
  - Reduces risk associated with a single mine operation
  - Bullish on gold
  - Focus on precious metals increases shareholder value
- Completed acquisition of Cadiscor Resources in May 2009 for \$32 million in an all share transaction
- First step in NAP's evolution into a diversified precious metals producer
- The Sleeping Giant Mine provides good platform from which to grow and expand

Aim is to **build gold division** to production of approximately **250,000 ounces** per year





## Sleeping Giant mine: a foundation for growth

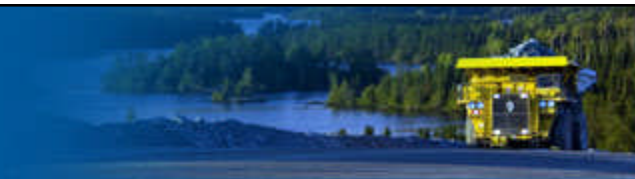
- 100% owned Sleeping Giant gold mine is located northwest of Val D'Or, Quebec in prolific Abitibi region
- Contained mineralization of 153,000 gold ounces\*
- Previously operated by IAMGOLD, Sleeping Giant produced an average of 58,000 ounces of gold over last five years
- Cumulative production of 1 million ounces over 20 years at an average grade of 11.4 g/t gold

\* See cautionary note to U.S. Investors in Appendix.





## Progress at Sleeping Giant



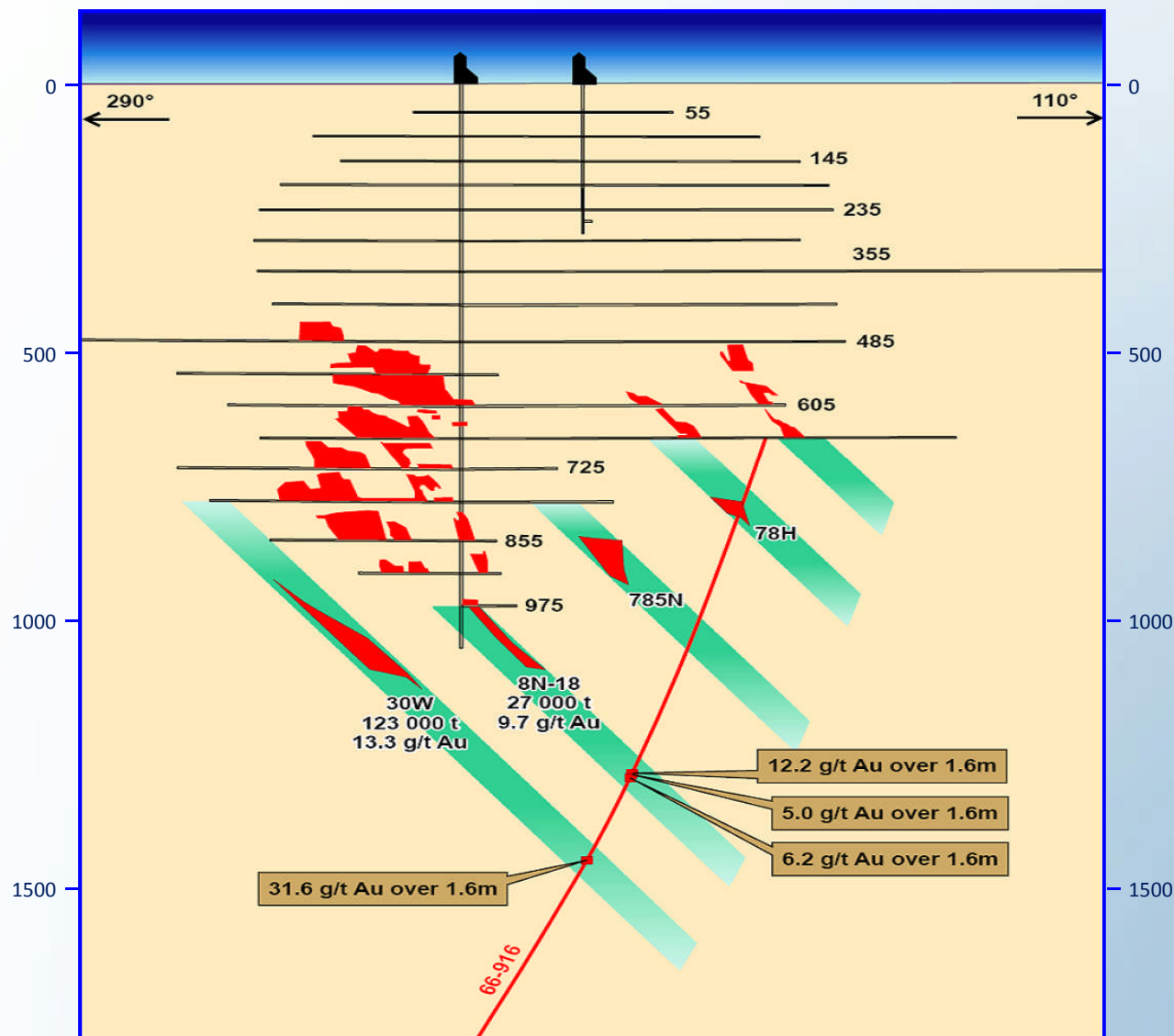
- Annual production expected to be 50,000 ounces per year with cash cost approximately US \$450 per ounce\*
- Production restart to cost approximately \$7.5 million
- Full complement of employees on site
- Mill refurbishment complete and on budget

**On track and on budget for resuming production in Q4 2009**

\* Non-GAAP performance measure. For further information, please see pages 22-23 of the Company's Second Quarter 2009 Report.



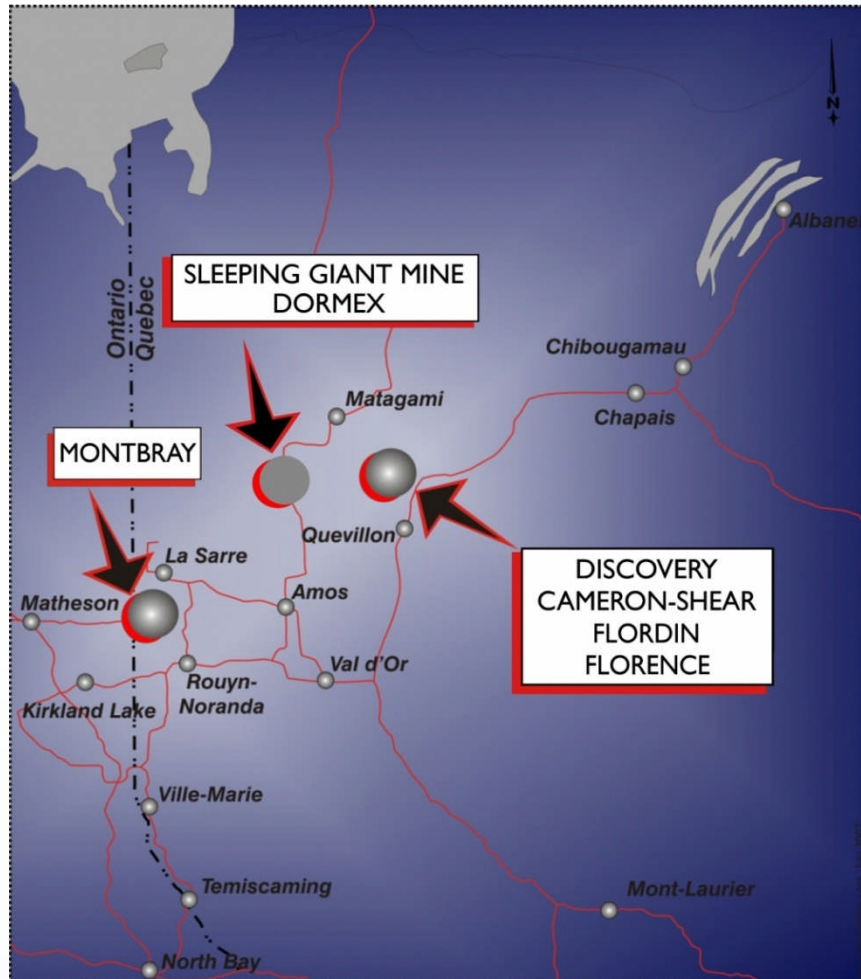
# Potential to grow through exploration







## Discovery: A potential source of additional production



- 237,000 measured and indicated gold ounces\*
- 294,000 inferred gold ounces\*
- Process ore at Sleeping Giant mill, which is 70 km away via established logging roads
- August 2008 PEA identified 44,000 ounces of gold production per year over 4-year mine life

\* See cautionary note to U.S. Investors in Appendix.



## Investing in regional exploration

- Investing \$2 million in exploration in Sleeping Giant region
- Option agreement with Midland Exploration
- Exploring at Discovery and Dormex





## Acquisition: The external growth driver

- Focus on gold companies with near-term production potential
- Build on presence in Abitibi region of Quebec
- Focus on North and South America
- Disciplined approach that maintains balance sheet strength
- Leverage management strengths and expertise



## NAP: On track for growth



Restart LDI mine  
when sustainable  
recovery in  
palladium prices  
is achieved

Continue  
aggressive  
exploration  
program



Become gold  
producer by the  
end of 2009

Continue  
diversification  
through  
acquisitions





## Shareholder information

North American Palladium's vision is to build a mid-tier diversified precious metals company operating in mining friendly jurisdictions. Highly leveraged to palladium, the Company is building on its exposure to gold, and focused on acquiring high quality near-term producing gold assets. NAP's experienced management and technical teams have a renewed commitment to exploration and are dedicated to building shareholder value.

Corporate office: 130 Adelaide Street West, Suite 2116  
Toronto, Ontario M5H 3P5

Stock Symbols: NYSE Amex – PAL  
TSX – PDL

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

Investor Relations: Annemarie Brissenden  
Director, Investor Relations  
[abrissenden@nap.com](mailto:abrissenden@nap.com)  
416 -360-7971 ext. 226



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re-engineering the future

# Investor Presentation

September 2009

[Appendices and further information](#)





## Appendices – Table of Contents



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- Exploration slides slides 30 to 33
- Reserves and resources slides 35 to 39



## Senior management

### **Bill Biggar – President and CEO**

An accomplished businessman with extensive experience in mining and in a broad range of industries. Mr. Biggar has held senior positions with Barrick Gold Corporation, Horsham Corporation and Magna International. He also has over 12 years of experience as an investment banker and private equity investor.

### **Dave Passfield – Vice President, Operations**

A professional engineer by training, Mr. Passfield has 30 years experience in open-pit and underground operations. Mr. Passfield has held key management positions with several major Canadian and international mining companies and has operating experience in Canada and overseas.

### **Bill Stone – Vice President, Exploration**

Dr. Stone has a Ph.D. in Geology from the University of Western Ontario and brings over 25 years of exploration experience to the Company, including significant experience with platinum group metals, gold and nickel-copper sulphides. In addition to serving as Principal Geologist and Vice President of Exploration with several Canadian and Australian listed firms, Dr. Stone also taught economic geology and geochemistry at the University of Western Australia in Perth.





## Senior management

### **Michel Bouchard – Vice President, Gold Division**

Mr. Bouchard has been involved in exploration, development, and operations in the mining industry for the past 25 years. He is credited with contributing to the discovery of the Bouchard Hebert Mine in northwest Quebec. Previously Mr. Bouchard held senior positions with Audrey Resources, Lyon Lake Mines and SOQUEM. Mr. Bouchard was formerly President and CEO of Cadiscor Resources Inc.

### **Jeff Swinoga – Vice President, Finance and CFO**

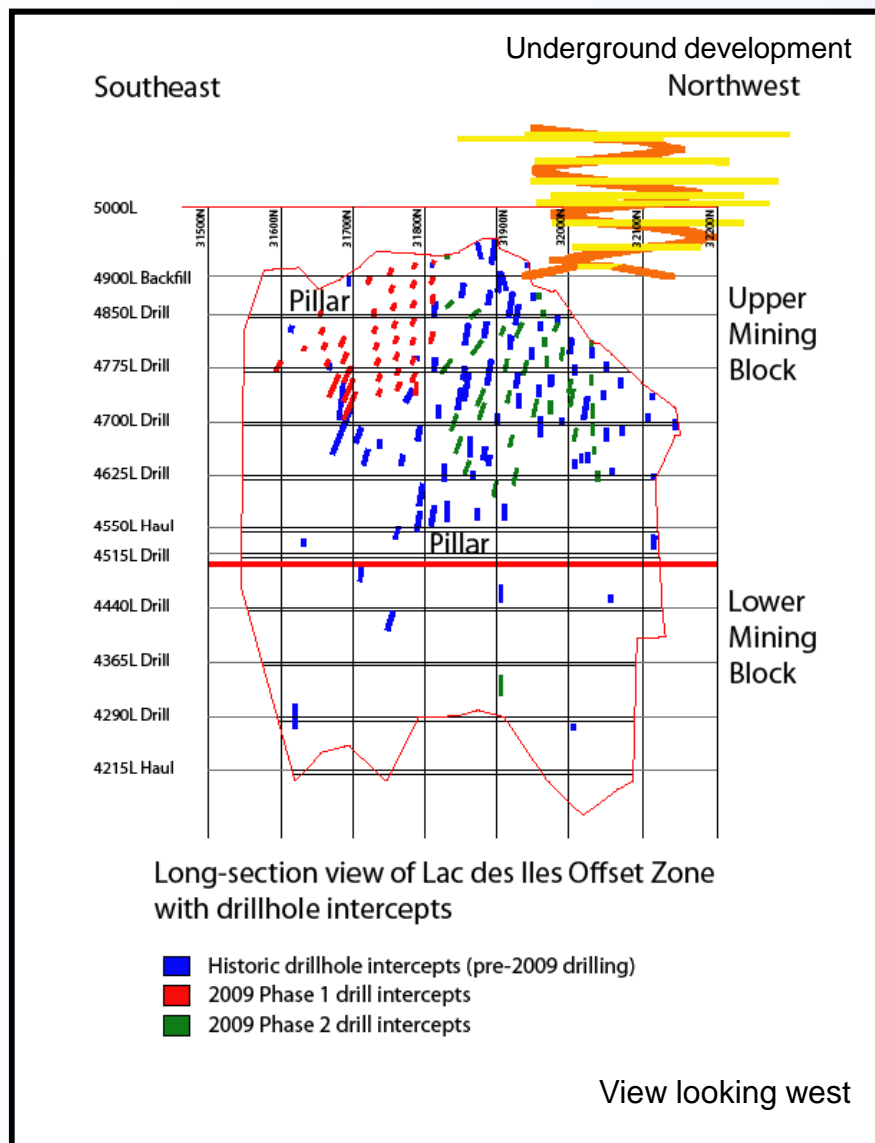
Eighteen years of experience in the resource, mining and finance industries. Mr. Swinoga has held CFO positions with HudBay Minerals and MagIndustries, and was Director, Treasury Finance of Barrick Gold Corporation for seven years.

### **Trent Mell – Vice President, Corporate Development and General Counsel**

Experienced corporate counsel at the head offices of Barrick Gold Corporation and Sherritt International. Prior to joining the mining industry, Mr. Mell worked on Bay Street with Stikeman Elliott LLP, where he practiced in the M&A and securities law group.

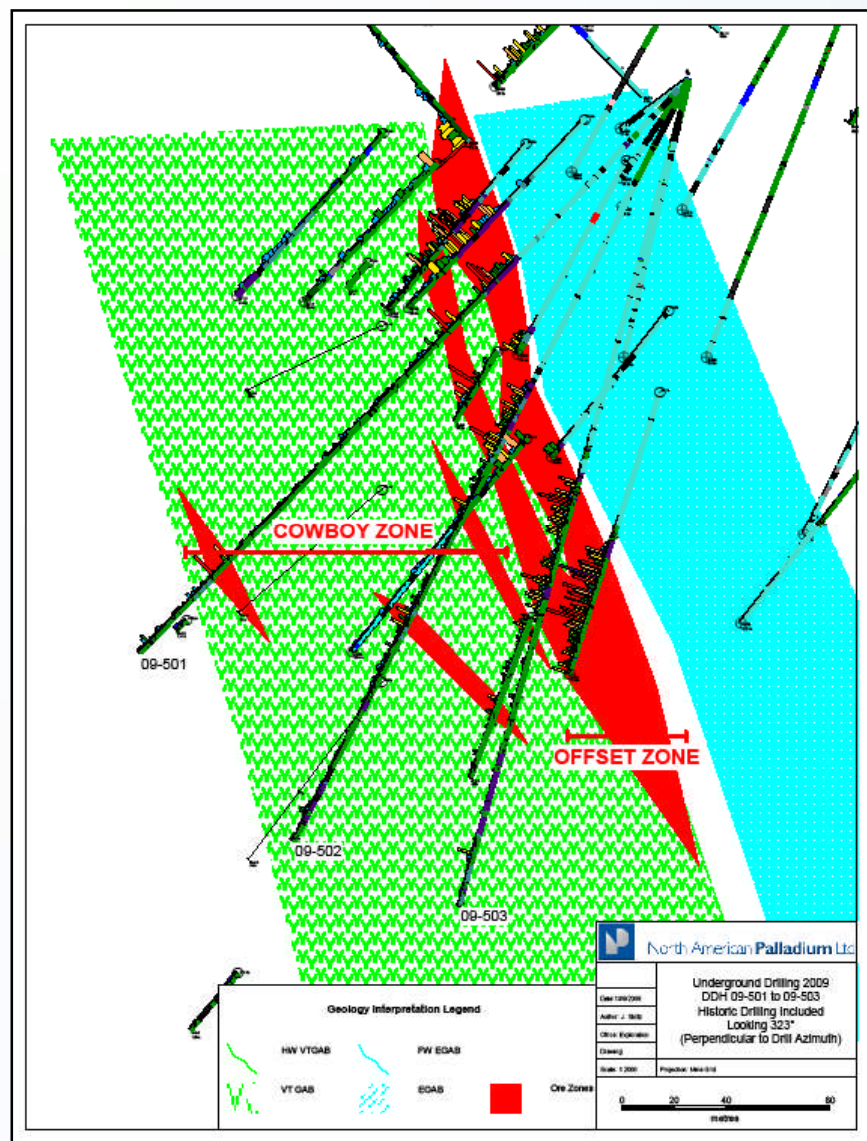


# Longitudinal section showing Phase 1 and 2 drillhole intercepts





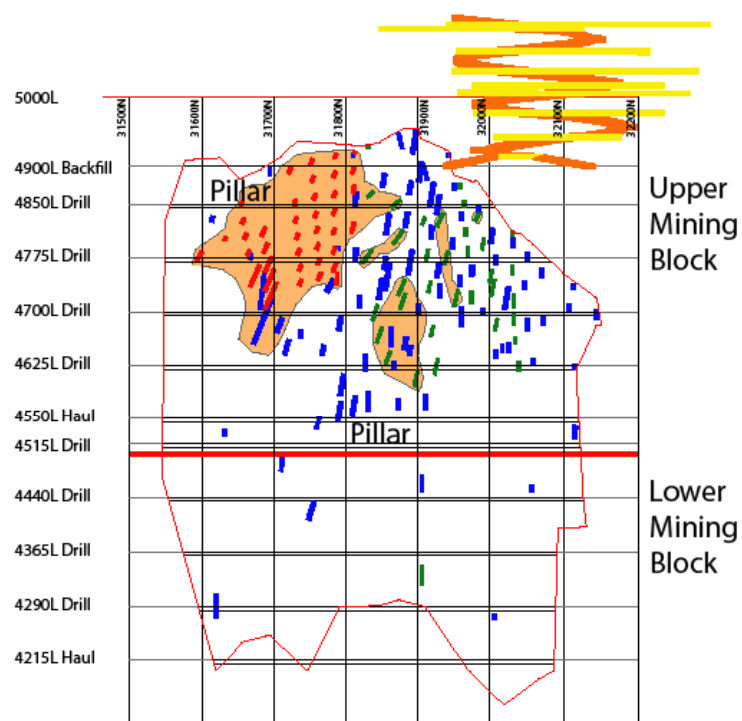
## Interpreted cross section 508N of Phase 2 drilling, Offset Zone and Cowboy Zone





## Longitudinal section showing drill hole intercepts for the Cowboy Zone

Southeast Northwest



Long-section view of Lac des Iles Offset Zone with drillhole intercepts

- Historic drillhole intercepts (pre-2009 drilling)
- 2009 Phase 1 drill intercepts
- 2009 Phase 2 drill intercepts
- Region outlining drillholes which intercept the Cowboy Zone

\*Most historic drillholes terminate short of Cowboy Zone mineralization







## Appendix – Resources and Reserves

- 1. Cautionary Note to U.S. Investors Concerning Mineral Reserves and Mineral Resources**
- 2. Lac des Iles mine**  
Mineral Resource Summary – December 31, 2008
- 3. Lac des Iles mine – Offset Zone**  
Estimated Mineral Resource – January 20, 2009
- 4. Sleeping Giant mine**  
Statement of Reserves and Resources – October 2008
- 5. Discovery Project**  
Mineral Resources – August 1, 2008

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Dr. William E. Stone, P. Geo, Vice President, Exploration for North American Palladium Ltd., is the Qualified Person who supervised the preparation of the technical data in this presentation.

Please refer to North American Palladium's Annual Information Form for the year ended December 31, 2008 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.



## Cautionary Note to U.S. Investors Concerning Mineral Reserves and Mineral Resources



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 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 U.S. Securities and Exchange Commission, 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 U.S. Securities and Exchange Commission.





# Lac des Iles mine

Mineral Resource Summary – December 31, 2008



Location	Tonnes (000's)	Pd (g/t)	Pt (g/t)	Au (g/t)	Cu (%)	Ni (%)	PdEq (g/t)	Pd (000 oz)
Measured Resources								
Roby Open Pit	3,722	1.99	0.23	0.17	0.075	0.065	3.77	238
Roby Stockpiles	763	2.09	0.19	0.18	0.060	0.079	3.79	51
Indicated Resources								
Roby Open Pit	2,565	2.20	0.24	0.18	0.078	0.068	4.07	181
Roby RGO Stockpile	13,365	0.97	0.12	0.08	0.034	0.056	2.00	4.17
Roby Underground	3,292	7.61	0.44	0.33	0.062	0.077	10.46	805
Offset Underground	12,331	5.02	0.38	0.37	0.114	0.133	8.28	1,990
Total M&I Resources	36,038	3.18	0.26	0.22	0.072	0.086	5.29	3,682
Inferred Resources								
Offset Underground	4,637	4.9	0.4	0.3	0.12	0.13	8.0	730

## Notes:

1. CIM definitions were followed for the estimation of Mineral Resources.
2. Mineral Resources for the Roby Open Pit were estimated at a cut-off grade of 1.8 g/t PdEq, within an optimized pit shell run below the current pit survey (October 2008).
3. Mineral Resources in stockpiles were estimated at a cut-off grade of 1.9 g/t PdEq.
4. Mineral Resources for the Roby and Offset Zones underground were estimated at a cut-off grade of 5.8 g/t PdEq.
5. Cut-off grades were determined under the assumption that a production rate of 14,000 tpd would be resumed in the event of restarting operations.
6. PdEq factors were calculated separately for each area, based on operating cost and metallurgical performance estimates appropriate for those areas.
7. Metal price assumptions of US \$250/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 Pd/Eq and cut-off grade. A US\$/C\$ exchange rate of 1.11 was used.

Please refer to North American Palladium's Annual Information Form for the year ended December 31, 2008 and applicable technical reports filed 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.





# Lac des Iles mine – Offset Zone

Estimated Mineral Resource – March 31, 2008



Category	Tonnes (millions)	Pd (g/t)	Pt (g/t)	Au (g/t)	Ni (%)	Cu (%)	PdEq (g/t)	Pd (000 oz)
Indicated	12.3	5.02	0.38	0.37	0.13	0.11	8.28	1,985
Inferred	4.6	4.85	0.37	0.33	0.13	0.12	8.0	717

## Notes:

1. Prepared by Mr. Ian T. Blakley, P. Geo and Senior Consulting Geologies for Scott Wilson Roscoe Postle Associates, an independent Qualified Person within the meaning of NI 43-101.
2. Palladium equivalency (PdEq) cut-off of 5.575 g/t, assuming long-term US\$ metal prices of \$300/oz Pd, \$1,000/oz Pt, \$850/oz Au, \$7.00/lb Ni, \$2.50/lb Cu and a US\$/C\$ exchange rate of 1.10.
3. Resources were estimated to a maximum depth of 1,200 m.
4. Metal recovery assumptions of 80% Pd, 70% Pt, 75% Au, 40% Ni and 85% Cu were used in estimation of PdEq.

The Offset Zone resource estimate is available on [www.sedar.com](http://www.sedar.com), [www.sec.gov](http://www.sec.gov) and [www.nap.com](http://www.nap.com).



# Sleeping Giant mine

Statement of Reserves & Resources – October, 2008



Type	Tonnes (000's)	Au (g/t)	Au Contained ounces
<b>Reserves</b>			
Proven	135,300	9.3	40,396
Probable	100,000	9.4	30,177
<b>Resources</b>			
Measured	42,000	8.7	11,731
Indicated	211,900	10.3	70,068

Notes:

1. CIM definitions were followed for the estimation of Mineral Resources and Reserves.
2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Reserves as stated can be produced at or below the production cost of CDN\$850 per troy ounce.  
With an exchange rate of \$1US=1.07 \$CDN, this corresponds to a gold price of US \$794 per troy ounce.
4. Reserve estimates are based on historical mine operating costs and gold recoveries at the mine.  
The estimated cost of each stope has included development costs based on current mine costs and per shift production.
5. A series of gold prices have been used to estimate reserves in a number of economic scenarios.  
The gold price has been modified in US\$50 increments from US\$750 to US\$900 per troy ounce.

Please refer to the Technical Report titled "The Sleeping Giant Mine, Northwestern Quebec", dated October 8, 2008 and prepared by Genivar LP for further information. It is filed on [www.sedar.com](http://www.sedar.com) under Cadiscor Resources Inc.

Dr. Tyson C. Birkett, Eng. Ph.D., Josee Couture, Eng., and Christian Bezy, Geo, are the Qualified People who supervised the preparation of the above technical data.



# Discovery Project

## Mineral Resources – August 1, 2008



Type	Tonnes	Au (g/t)	Au (Contained Oz)
<b>Mineral Resources</b>			
Measured	3,109	8.95	893
Indicated	1,278,973	5.74	235,682
Inferred	1,545,500	5.93	294,223

### Notes:

1. CIM definitions were followed for the estimation of Mineral Resources and Reserves.
2. The Independent and Qualified Persons for the Mineral Resource estimates as defined by Regulation 43-101 is Carl Pelletier, B.Sc., P.Geo., of InnovExplo Inc. The effective date of the estimate is June 17, 2008.
3. Mineral Resources, having demonstrated economic viability, are not Mineral Reserves.
4. Results are presented undiluted and in situ. The estimate included six (6) gold-bearing zones ("A", "B", "C", "E", "20" and "30") and covers the Discovery Project area between sections 1+00E to 9+00W and 4+50E to 15+00E.
5. The resources were compiled using a cut-off grade of 3.0 g/t Au. This cut-off must be re-evaluated in light of present market conditions (gold price, exchange rate and mining cost). A fixed density of 2.82 g/cm<sup>3</sup> was used. A minimum of 1.6 m horizontal width was applied, using the grade of the adjacent material when assayed, or a value of zero when not assayed. High grade capping was done on the raw data and established at 35.0 g/t Au. Drill hole compositing was not done. Resources were evaluated from drill hole results using a polygonal on longitudinal approach.  
Calculations used metric units (metre, tonnes and g/t Au).  
The company is not aware of any known environmental, permitting, legal, title, taxation, socio-political, marketing or other relevant issue that could materially affect the Mineral Resource estimates.

For further information, please refer to the report titled "Technical Report on the Scoping Study and Mineral Resource Estimate for the Discovery Project (according to Regulation 43-101 and Form 43-101F1) dated August 1, 2008 and prepared by InnovExplo Inc. It is filed on [www.sedar.com](http://www.sedar.com) under Cadiscor Resources Inc.