# GENERATIONMINING

# **Generation Mining Delivers Positive Feasibility Study for Marathon Palladium-Copper Project**

After-Tax IRR of 30%, NPV6%, \$1.07 Billion, Payback 2.3 years - Base Case

**Toronto, Ontario – 3 March 2021** – Generation Mining Limited (TSX: GENM; OTCQB: GENMF) ("Gen Mining" or the "Company") is pleased to announce the results of the Feasibility Study for the Marathon Palladium and Copper Project (the "Project") located near the Town of Marathon in Northwestern Ontario. The Feasibility Study supports an open pit mining operation with a robust rate of return over a 13-year mine life.

All dollar amounts are in Canadian dollars and stated on a 100% project ownership basis unless otherwise noted.

# **Feasibility Study Highlights:**

- **Robust economics:** Internal Rate of Return ("IRR") (after-tax) of 29.7% and a Net Present Value ("NPV") (6%) of \$1.07 billion based on a long-term price of US\$1,725/oz for palladium and US\$3.20/lb for copper
- Using spot metal prices<sup>1</sup>: **IRR of 47%**, **NPV6% of \$2.02 billion and payback of 1.5 years** using spot prices of US\$2,395/oz for palladium and US\$3.99/lb for copper
- Quick payback on low Initial Capital: \$665 million (US\$520 million) net of equipment financing and a 2.3-year payback period
- Low operating costs and attractive AISC: LOM average cash costs of US\$687/Pd Eq. oz<sup>2</sup> and allin sustaining costs (AISC) of US\$809/Pd Eq. oz<sup>2</sup>
- **Payable metals**: 1.9 M oz palladium, 467 M lbs copper, 537,000 oz platinum, 151,000 oz gold and 2.8 M oz silver
- First three years of production following commercial production: \$979 million of free cash flow, Payable metal: 588,000 oz of palladium and 122 M lbs of copper from approximately 270,000 tonnes of Cu-Pd concentrate shipped

<sup>&</sup>lt;sup>1</sup> Spot Price on 22 February 2021: Pd = US\$2,395/oz; Cu = US\$3.99/lb; Pt = US\$1,268/oz; Au = US\$1,807/oz; Ag = US\$27.45/oz; Pd, Pt, Au and Ag prices sourced LBMA; Cu price sourced on LME Copper; C\$/US\$ exchange rate = 1.266, sourced Bank of Canada prior week average ending 22 Feb. 2021

<sup>&</sup>lt;sup>2</sup> Pd eq grade is calculated based on: ((Pd US\$1,725/31.10348 x Pd grade g/t + Cu US\$3.20/2204.6 x Cu grade %/ 100 + Au US\$1,400/31.10348 x Au grade g/t + Pt US\$1,000/31.10348 x Pt grade g/t + Ag US\$20/ 31.10348 x Ag grade g/t))/ (Pd US\$1,725/31.10348)

• The Project is expected to generate direct corporate taxes and duties to the provincial and federal governments of \$944 million

Jamie Levy, President and CEO of Gen Mining commented, "This study confirms that the Marathon Palladium and Copper Project is a substantial mining project that is expected to provide a very robust return on investment. We expect the palladium supply in particular to remain in deficit for the foreseeable future as Europe, China and other regions roll out tougher emissions standards. We are excited about the opportunity to create jobs and economic stimulus to Canada, Ontario and to the communities surrounding Marathon."

"With the consensus outlook for palladium and copper strong for the next decade," commented Executive Chairman Kerry Knoll, "this is a project whose time has come. With little new PGM mine capacity being scheduled to come on stream over the next few years, Gen Mining plans to advance the environmental approval process, detailed engineering and mine financing during the remainder of 2021. We anticipate being able to begin construction next year subject to permitting approvals and financing arrangements."

Drew Anwyll, P.Eng, Chief Operating Officer, said, "The process plant was designed at a capacity of 9.2 Mt per year with the flowsheet realizing improved metallurgical recoveries compared to past proposed designs; in addition, the mine plan includes strategic sequencing of the open pit that targets the higher grade palladium in the first half of the mine life. With these key design elements, and a realistic initial capital, we have a Project that demonstrates exceptional financial results and a quick payback period of 2.3 years."

Gen Mining owns an 80% interest in the Project, with the remaining interest owned by Sibanye Stillwater Limited ("Sibanye-Stillwater"). Sibanye-Stillwater has certain back-in rights that allow it to increase its interest in the Project to 51% in certain circumstances and subject to certain conditions (see News Release of July 9, 2019 for details). The Feasibility Study has not yet been approved by the Joint Venture management committee and Sibanye-Stillwater and as a next step, Sibanye-Stillwater and the management committee are planning to review the Feasibility Study.

The Feasibility Study was prepared by G Mining Services Inc. ("GMS"), along with contributions from Ausenco Engineering Canada Inc. ("Ausenco"), Haggarty Technical Services ("HTS"), Knight Piésold Ltd. ("KP"), WESC Inc. and P&E Mining Consultants Inc. ("P&E").

# **Conference Call**

Gen Mining will host a Webinar with management to discuss these results on Thursday, March 4 at 8:30 a.m. EST. The webinar can be accessed through the link below or by signing up for news at the Company website at <u>www.Genmining.com</u>.

Thursday March 4th, 830am Eastern Link: <u>https://my.6ix.com/C\_A56uL6</u>

Attendee Dial-in Number: +1 (312) 248-9348 Attendee Dial-in ID Number: 301668 Attendee Dial-in Passcode: 3422

# MARATHON PALLADIUM AND COPPER PROJECT FEASIBILITY STUDY<sup>3</sup>

Price Assumptions <sup>1</sup>	Units	Base Case
Palladium	US\$/oz	\$1,725
Copper	US\$/lb	\$3.20
Platinum	US\$/oz	\$1,000
Gold	US\$/oz	\$1,400
Silver	US\$/oz	\$20.00
Exchange Rate	C\$/US\$	1.28
Diesel Fuel	\$/L	0.77
Electricity	\$/kWhr	0.08

Key results and assumptions used in the Feasibility Study are summarized in the table below.

Note: <sup>1</sup> Commodities listed in order of revenue.

Operating Data	Units	<b>Pre-Production</b>	Operations	Total
Mine life	years	2	12.6	14.6
Total Milled Tonnes	Mt	1.9	115.8	117.7
Total Mined Tonnes	Mt	25.4	421.8	447
Strip Ratio	waste:ore	3.33	2.77	2.80
Metal Production <sup>1</sup>	Units	Recovered	Payable	% of
		Metals	Metal	Revenue
Palladium	k oz	2,028	1,905	58.7%
Copper	M lbs	493	467	26.8%
Platinum	k oz	634	537	9.6%
Gold	k oz	183	151	3.8%
Silver	k oz	3,796	2,823	1.0%

*Note:* <sup>1</sup> *LOM metal production including pre-production period.* 

Capital Costs	Units	
Initial Capital <sup>1</sup>	\$M	665
LOM Sustaining Capital	\$M	423
LOM Total Capital	\$M	1,087
Closure Costs	\$M	66

Note: <sup>1</sup> Initial Capital shown after equipment financing.

<sup>&</sup>lt;sup>3</sup> All Feasibility Study results are based on the Base Case assumptions except as noted for Spot Price results

Operating Costs	Units	
Mining <sup>1</sup>	\$/t mined	2.53
Processing	\$/t milled	9.08
General & Administration	\$/t milled	2.48
Transport & Refining Charges	\$/t milled	2.80
Royalties	\$/t milled	0.03
Total Operating Costs	\$/t milled	23.63
LOM Average Operating Cost	US\$/oz Pd Eq	687
LOM Average AISC	US\$/oz Pd Eq	809

Note: Refer to Non-IFRS Financial Measures at the end of the news release.

<sup>1</sup> Mining cost also noted as \$9.23/tonne milled.

Economic Analysis Base Case	Units	<b>Base Case</b>	Spot Price <sup>1</sup>
Pre-tax Undiscounted Cash Flow	\$M	3,004	5,305
Pre-tax NPV6%	\$M	1,636	3,042
Pre-tax IRR	%	38.6	59.9
Pre-tax Payback	years	1.9	1.2
After-tax Undiscounted Cash Flow	\$M	2,060	3,626
After-tax NPV6%	\$M	1,068	2,025
After-tax IRR	%	29.7	46.5
After-tax Payback	years	2.3	1.5

Note: <sup>1</sup> Spot Price on 22 February 2021: Pd = US\$2,395/oz; Cu = US\$3.99/lb; Pt = US\$1,268/oz; Au = US\$1,807/oz; Ag = US\$27.45/oz; Pd, Pt, Au and Ag prices sourced LBMA; Cu price sourced on LME Copper.



# **Project Cash Flow (After-Tax)**

# **Mine Production Profile - Key Metals**





# Platinum, Gold and Silver - Payable Metal



Copper - Payable Metal

# Mining

Mining methods will employ conventional open pit, truck and shovel operating practice. Three pits will be mined over the 13-year mine life, with an additional two years of pre-production mining to be undertaken where waste material is being mined for construction and ore stockpiled ahead of processing plant commissioning. The mining equipment fleet is to be owner-operated and will include outsourcing of certain support activities such as explosives manufacturing and blasting. Production drilling and mining operations will take place on a 10 m bench height. The primary loading equipment will consist of two hydraulic face shovels (29 m<sup>3</sup> bucket size) and one large front-end wheel loader (30 m<sup>3</sup> bucket size). The loading fleet is matched with a fleet of 13 x 216 tonnes haulage trucks. A fleet of two 90 tonnes excavators will be used to excavate the limited volume of overburden material and will also be allocated to mining of the narrow-thickness ore zones associated with the W-Horizon in the South Pit to mitigate additional dilution.

Mining production at peak capacity is 40 Mt per year (110,000 tonnes per day ("t/d")). Total material moved over the life of the operation is 447 Mt with 118 Mt of ore mined.

The Marathon Deposit is well defined and characterized by ore outcropping on surface, wide, and moderately dipping mineralized zones.

The open pit operation includes a waste rock dump immediately to the east of the open pits and an ore stockpile (peak capacity of approximately 12 Mt) to the west of the pits, proximal to the crusher location.

# Processing

The Project process design is based on the optimized flowsheet as determined by operational considerations and the 2020 metallurgical test programs. The process plant is designed to operate at 9.2 Mt per year (25,200 t/d) and will produce a copper-palladium concentrate for marketing.

The process plant flowsheet includes a conventional comminution circuit consisting of a SAG mill, pebble crusher followed by a ball mill ("SABC"). The flotation portion of the process plant includes rougher flotation, concentrate regrind and three stages of cleaning. After the initial construction phase, the palladium-scavenger ("PGM-Scavenger") circuit will be installed and including cyclone classification of rougher tailings to reject the fine fraction and submit coarser fractions to additional regrinding and PGM scavenger flotation. The PGM-Scavenger circuit will add incremental recovery improvement to achieve the recoveries established in the 2020 metallurgical testing programs.

Metal	% Recovery at Average Reserve Grade	Recovery Equations
Palladium	86.9%	% Rec Pd = 88.27 x (Pd head grade Exp(0.0338)) , to a maximum of 92%
Copper	93.0%	% Rec Cu = 93.0 (constant)
Platinum	84.2%	% Rec Pt = $1.22 \text{ x}$ (% Rec Pd) - $21.79$
Gold	72.4%	% Rec Au = 1.39 x (% Rec Pd) - 48.37
Silver <sup>1</sup>	71.5%	% Rec Ag = $71.5$ (constant)

*Note:* <sup>1</sup> *Silver recovery assumes prior metallurgical test recoveries.* 

The flotation circuit design incorporates Woodgrove Direct Flotation Reactors ("DFRs") which provide decreased power consumption and improved operational performance. Concentrate thickening, concentrate

filtering, tailings thickening, water management, and a Tailings Storage Facility ("TSF") complete the flowsheet.

The below table identifies the key elements in the Cu-PGM concentrate as produced from the mini-pilot plant from the 2020 metallurgical test program.

Element	Unit	South Pit	North Pit
		(W-Horz.)	(Main Zone)
Pd	g/t	171	39
Cu	%	18.7	19.7
Pt	g/t	43.5	7.6
Au	g/t	17.6	3.3
Ag	g/t	> 50	68
Rh	g/t	2.4	0.58

Note: Only key elements are listed in this table. The concentrate is low in deleterious elements; no smelter penalties are anticipated in concentrate marketing.

# Site Infrastructure

The existing regional infrastructure in the area of the Project is well established and will allow for the efficient logistics associated with project execution and operations including the movement of the Cu-Pd concentrate to a third-party, off-site smelter.

All site infrastructure facilities, including the roads and access, process plant buildings, workshops, warehouse, administrative buildings, water treatment plants, explosive plant, communication systems, power and power transmission line required for the Project during construction and operation have been considered in the Project design. Off-site infrastructure (including transload concentrate facility, assay lab and accommodation units) required to support the operation have also been included.

The TSF design methodology includes downstream constructed embankments using run-of-mine rockfill with embankments founded directly on bedrock. Majority of the TSF area consists of exposed bedrock with a thin intermittent layer of sand and gravels. The upstream face of embankments includes an HDPE Geomembrane to minimize seepage. The construction methodology includes for bulk material placement with the mining fleet. Directly associated with the TSF is robust water management facilities that are deemed to support the operation and the robust environmental stewardship.

# **Capital and Operating Cost Summary**

The initial capital cost considers a site-based construction timeframe of approximately 18 months followed by a commissioning and ramp-up to commercial production over a period of approximately 9 months. During the pre-commercial production, the costs and revenue associated with operations will be capitalized and included in the capital costs.

Construction Indirects and General and Owner's costs are related to the expenses other than the direct equipment purchase and direct construction costs.

Sustaining Capital items include future equipment purchases and replacements and major planned component replacements for the mining fleet, the progressive build of the TSF over the life of the operation, installation of the PGM-Scavenger circuit following commercial production and infrastructure

developments to support the growth and contribute to operational improvements following initial construction.

Capital Costs	Initial (\$ M)	Sustaining (\$ M)	Total (\$ M)
Mining	127.8	184.1	311.9
Process Plant	269.2	38.5	307.7
Infrastructure	107.7	29.3	136.9
Tailings Storage and Water Management	61.2	170.8	232.0
Construction Indirects	113.5		
General and Owner's Cost	14.9		
Preproduction, Startup, Commissioning	(52.9)		
Subtotal (before equipment financing)	641.4	422.6	988.5
Contingency <sup>1</sup>	74.8		
Subtotal (including contingency)	716.1		
Less: Equipment Financing Drawdowns	(72.4)		
Add: Equipment Lease Payment & Fees	21.0		
Total Initial Capital (after equipment financing)	664.7	422.6	1087.3
Closure & Reclamation <sup>2</sup>		65.9	65.9
Total Capital Costs	664.7	488.5	1153.2

Note: <sup>1</sup> Contingency included at project sub-category basis and totals approximately 11.7%.

<sup>2</sup> Closure cost estimate is \$55.1M, additional cost included for carrying cost of closure bond. Sums may not total due to rounding.

Operating Costs	\$ M	\$/tonne milled	US\$/oz Pd Eq
Mining <sup>1</sup>	1,069	9.23	268
Processing	1,051	9.08	264
General & Administration and Others	287	2.48	72
Concentrate Transport Costs	146	1.26	37
Treatment & Refining Charges	178	1.54	45
Royalties	4	0.03	1
LOM Operating Costs	2,736	23.61	687
Closure & Reclamation	66	0.57	17
Sustaining Capital	423	3.65	106
LOM AISC	3,224	27.78	809

*Note:* <sup>1</sup> *Unit mining cost per tonne mined* \$2.53/*t*.

# Economic Analysis (presented on a 100% ownership basis, base case assumptions)

The economic cash flow model of the Project, using long-term price of US\$1,725/oz for platinum, US\$3.20/lb for copper, and a C\$/US\$ exchange rate of 1.28, generates an after-tax NPV of \$1.07 billion, at a 6% discount rate, and an after-tax IRR of 29.7%. Payback is 2.3 years on initial capital. Before taxes, the NPV at 6% is \$1.64 billion and IRR is 38.8% with a payback of 1.5 years. The economic analysis is

carried out in real terms (i.e., without inflation factors) in Q1 2021 Canadian dollars without any project financing but inclusive of equipment financing and costs for closure bonding.

The Project has significant leverage to the palladium and copper prices. The after-tax valuation sensitivities for the key metrics are shown below.

Palladium Price							
US\$/oz	1,000	1,250	1,500	1,725	1,850	2,000	2,500
NPV6% (\$M)	356	601	847	1,068	1,190	1,337	1,831
Payback (yrs)	4.3	3.2	2.6	2.3	2.1	2.0	1.6
IRR (%)	14.8%	20.2%	25.3%	29.7%	32.1%	34.8%	43.7%
Copper Price							
US\$/lb	2.00	2.50	3.00	3.20	3.50	4.00	4.50
NPV6% (\$M)	792	907	1,022	1,068	1,137	1,251	1,365
Payback (years)	2.7	2.5	2.3	2.3	2.2	2.1	2.0
IRR (%)	24.7%	26.8%	28.9%	29.7%	30.9%	32.9%	34.8%

After-Tax Results	OPEX Sensitivity							
	-20%	-15%	0%	15%	20%			
NPV 6% (\$M)	1,270	1,220	1,068	916	866			
Payback (yrs)	2.1	2.1	2.3	2.4	2.5			
IRR (%)	33.0%	32.2%	29.7%	27.1%	26.2%			

After-Tax Results	CAPEX Sensitivity						
	-20%	-15%	0%	15%	20%		
NPV 6% (\$M)	1,195	1,163	1,068	972	940		
Payback (yrs)	1.9	2.0	2.3	2.6	2.7		
IRR (%)	37.7%	35.4%	29.7%	25.3%	24.1%		

Discount Rate	NPV (After-Tax)
Sensitivity	( <b>\$M</b> )
0%	2,060
5%	1,191
6%	1,068
8%	859
10%	689

#### **Mineral Resources**

The Mineral Resource Estimate below is for the combined Marathon, Geordie and Sally deposits. The Mineral Resource Estimates were prepared by P&E.

Mineral	Tonnage	nage Pd Cu Au		u	]	Pt	Ag				
Resource Category	kt	g/t	koz	%	M lbs	g/t	koz	g/t	koz	g/t	koz
Marathon Deposit											
Measured	113,793	0.63	2,304	0.20	502	0.07	262	0.21	762	1.49	5,466
Indicated	89,012	0.45	1,296	0.19	373	0.06	182	0.16	449	1.77	5,078
M+I	202,806	0.55	3,599	0.20	875	0.07	444	0.19	1,211	1.62	10,544
Inferred	6,931	0.43	95	0.17	26	0.08	17	0.14	32	1.55	345
Geordie Deposit											
Indicated	17,268	0.56	312	0.35	133	0.05	25	0.04	20	2.4	1,351
Inferred	12,899	0.51	212	0.28	80	0.03	14	0.03	12	2.4	982
Sally Deposit											
Indicated	24,801	0.35	278	0.17	93	0.07	56	0.2	160	0.7	567
Inferred	14,019	0.28	124	0.19	57	0.05	24	0.15	70	0.6	280
Total Project											
Measured	113,793	0.63	2,304	0.20	502	0.07	262	0.21	762	1.49	5,466
Indicated	131,081	0.45	1,886	0.21	599	0.06	263	0.15	629	1.66	6,996
M+I	244,874	0.53	4,190	0.20	1,101	0.07	525	0.18	1,391	1.58	12,462
Inferred	33,849	0.40	431	0.22	163	0.05	55	0.10	114	1.48	1,607

#### Pit Constrained Combined Mineral Resource Estimate<sup>1-8</sup> for the Marathon, Geordie and Sally Deposits (Effective date June 30, 2020)

Notes:

1. Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions(2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council.

2. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues.

3. The Inferred Mineral Resource in this estimate has a lower level of confidence that that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

4. Mineral Resources are reported within a constraining pit shell at a NSR cut-off value of \$13/t.

5.  $NSR(C\$/t) = (Ag \ x \ 0.48) + (Au \ x \ 42.14) + (Cu \ x \ 73.27) + (Pd \ x \ 50.50) + (Pt \ x \ 25.07) - 2.62.$ 

6. The Mineral Resource Estimate was based on metal prices of US\$3.00/lb copper, US\$1,500/oz gold, US\$18/oz silver, US\$1,600/oz palladium, and US\$900/oz platinum

7. Mineral Resources are inclusive of Mineral Reserves.

8. Contained metal totals may differ due to rounding.

#### **Mineral Reserves**

The Mineral Reserve Estimate for the Marathon Project includes only the Marathon deposit. The Mineral Reserve Estimate was prepared by GMS.

Mineral Tonnage		age	Pd		Cu		Au		Pt		Ag	
<b>Reserves</b> <b>Category</b>	kt	%	g/t	koz	%	M lbs	g/t	koz	g/t	koz	g/t	koz
Proven	85,091	72	0.660	1,805	0.202	379	0.070	191	0.212	581	1.359	3,719
Probable	32,610	28	0.512	537	0.213	153	0.061	64	0.168	176	1.541	1,616
P+P	117,701	100%	0.619	2,342	0.205	532	0.067	255	0.200	756	1.410	5,334

#### Marathon Project Open Pit Mineral Reserve Estimates<sup>1-8</sup> (Effective date September 15, 2020)

Notes:

1. CIM definitions were followed for Mineral Reserves (see above Note 1).

2. Mineral Reserves are estimated at a cut-off grade varying from \$18.00 to \$21.33 NSR/t of ore.

3. Mineral Reserves are estimated using the following long-term metal prices (Pd = US\$1,500/oz, Pt = US\$900/oz, Cu = US\$2.75/lb, Au = US\$1,300/oz and Ag = US\$16/oz) and an exchange rate of C\$/US\$ of 1.33).

4. A minimum mining width of 5 m was used.

5. Bulk density of ore is variable and averages 3.07 t/m<sup>3</sup>.

6. The average strip ratio is 2.8:1.

7. The average mining dilution factor is 9%.

8. Numbers may not add due to rounding.

#### **Community, Environment and Permitting**

The Project is currently progressing with the Environment Approval process. The initial volume of the Environment Impact Assessment ("EIS Addendum") was issued in January 2021, with the second volume expected to be completed later in the first quarter of 2021. The Project is being assessed in accordance with the Canadian Environmental Assessment Act ("CEAA, 2012") and Ontario's Environmental Assessment Act through a Joint Review Panel pursuant to the Canada-Ontario Agreement on Environmental Assessment Cooperation (2004).

The Company and its predecessors have been engaged in consultation and negotiations with a number of Indigenous communities and regional municipalities with respect to the Project since 2004. The Company along with the identified communities are progressing relationships through regular meetings and interactions to advance towards the development of the Project. Gen Mining is striving to ensure these partnerships have mutually beneficial outcomes and anticipates strong and long-lasting relationships with these groups.

#### **Qualified Persons**

The news release has been reviewed and approved by Drew Anwyll, P.Eng., M.Eng., Chief Operating Officer of the Company, and a Qualified Person as defined by Canadian Securities Administrators National Instrument 43-101 ("NI43-101") "Standards of Disclosure for Mineral Projects". The technical information in this news release has been reviewed and approved by the following independent Qualified Person: Louis-Pierre Gignac, Ing.

The Feasibility Study was prepared through the collaboration of the following consulting firms and Qualified Persons:

<b>Consulting Firms</b>	Area of Responsibility	Qualified Person
G-Mining Services	Mineral Reserves Estimate	Antoine Champagne, ing.
	Mine design	
	Infrastructure design	Paul Murphy, ing.
	Capital costs and operating costs	Antoine Champagne, ing.
	(Mining and G&A)	
	Financial analysis	Louis-Pierre Gignac, ing
Ausenco Engineering	Metallurgical Testing	Robert Raponi, P.Eng
Canada Inc.	Plant design	
and Haggarty Technical	Capital and Operating costs (Plant)	
Services		
P&E Mining	Mineral Resource Estimate	Eugene Purich, P.Eng., FEC,
Consultants Inc.	Geological technical information	CET
	QA/QC review of drilling and	
	sampling data	
Knight Piésold Ltd.	Tailings design and water	Craig Hall, P.Eng
and WESC Inc.	management	
	Environmental studies and permitting	

# NI 43-101 Technical Report

Gen Mining plans to file an NI 43-101 Technical Report for the Marathon Project Feasibility Study within 45 days of this news release. Readers are encouraged to read the Technical Report in its entirety, including all qualifications, assumptions and exclusions that relate to the details summarized in this news release. The Technical Report is intended to be read as a whole, and sections should not be read or relied upon out of context.

The Company has prepared a presentation that summarizes the Feasibility Study results of the Project which is available on the Company's website.

# **Feasibility Study Approval by the Joint Venture**

Sibanye-Stillwater and the Joint Venture management committee have not reviewed nor approved the Feasibility Study at this time.

# **About Generation Mining**

Gen Mining's focus is the development of the Marathon Project, the largest undeveloped palladium-copper Mineral Resource in North America. The Marathon property covers a land package of approximately 22,000 hectares, or 220 square kilometres. Gen Mining owns an 80% interest in the Marathon Project, with the remaining interest owned by Sibanye Stillwater, which has certain back-in rights that allow it to increase its interest in the Marathon Project to 51% in certain circumstances and subject to certain conditions after such time a positive production decision has been made (see the Company's news release of July 11, 2019 for more details). For further information please contact:

Jamie Levy, President and Chief Executive Officer (416) 640-2934 / (416) 567-2440 jlevy@genmining.com

# **Non-IFRS Financial Measures**

The Company has included certain terms or performance measures commonly used in the mining industry that are not defined under International Financial Reporting Standards ("IFRS") in this news release. These include operating costs, AISC, LOM average AISC, LOM average operating cost, and Free Cash Flow. Non-IFRS measures do not have any standardized meaning prescribed under IFRS, and therefore, they may not be comparable to similar measures employed by other companies. The data presented is intended to provide additional information and should not be considered in isolation or as a substitute for measures prepared in accordance with IFRS. These measures do not have any standardized meaning prescribed under IFRS, and therefore may not be comparable to other issuers.

- Operating Costs include mining, processing, general and administrative and other, concentrate transportation costs, treatment and refining charges, and royalties.
- AISC include Operating Costs, closure, and reclamation, and sustaining capital.
- LOM Average AISC includes LOM AISC divided by LOM Pd Eq.
- LOM Average Operating Cost includes LOM Operating Costs divided by LOM Pd Eq.
- Free Cash Flow includes total revenue less Operating Costs, working capital adjustments, equipment financing, initial capital, sustaining capital and closure costs

#### Information Concerning Estimates of Mineral Reserves and Resources

The Mineral Reserve and Mineral Resource estimates in this press release have been disclosed in accordance with NI 43-101, which differs significantly from the requirements of the U.S. Securities and Exchange Commission (the "SEC"), and information with respect to mineralization and Mineral Reserves and Mineral Resources contained herein may not be comparable to similar information disclosed by U.S. companies. The requirements of NI 43-101 for identification of "reserves" are 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. In addition, and without limiting the generality of the foregoing, this press release uses the terms "Measured Resources", "Indicated Resources" and "Inferred Resources". U.S. investors are advised that, while such terms are recognized and required by Canadian securities laws, the SEC has not recognized them in the past. U.S. investors are cautioned not to assume that any part of a "Measured Resource" or "Indicated Resource" will ever be converted into a "reserve". U.S. 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 securities laws, "Inferred Resources" may not form the basis of feasibility or pre-feasibility studies except in certain cases. Disclosure of "contained ounces" in a Mineral Resource is a permitted disclosure under Canadian securities laws, 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 press release may not be comparable with information made public by companies that report in accordance with U.S. standards.

The SEC has adopted amendments to its disclosure rules to modernize the mineral property disclosure requirements under the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). These amendments became effective February 25, 2019 (the "SEC Modernization Rules") with compliance required for the first fiscal year beginning on or after January 1, 2021. Under the SEC Modernization Rules, the historical property disclosure requirements for mining registrants included in Industry Guide 7 under the U.S. Securities Act of 1933, as amended, will be rescinded and replaced with disclosure requirements in subpart 1300 of SEC Regulation S-K. As a result of

the adoption of the SEC Modernization Rules, the SEC now recognizes estimates of "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources." In addition, the SEC has amended its definitions of "Proven Mineral Reserves" and "Probable Mineral Reserves" to be "substantially similar" to the corresponding standards under NI 43-101. While the SEC will now recognize "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources", U.S. investors should not assume that any part or all of the mineralization in these categories will ever be converted into a higher category of Mineral Resources or into Mineral Reserves. Mineralization described using these terms has a greater amount of uncertainty as to its existence and feasibility than mineralization that has been characterized as reserves. Accordingly, U.S. investors are cautioned not to assume that any Measured Mineral Resources, Indicated Mineral Resources, or Inferred Mineral Resources that the Company reports are or will be economically or legally mineable. Further, "Inferred Mineral Resources" have a greater amount of uncertainty as to their existence and as to whether they can be mined legally or economically. Therefore, U.S. investors are also cautioned not to assume that all or any part of the "Inferred Mineral Resources" exist. There is no assurance that any Mineral Reserves or Mineral Resources that the Company may report as "Proven Mineral Reserves", "Probable Mineral Reserves", "Measured Mineral Resources", "Indicated Mineral Resources" and "Inferred Mineral Resources" under NI 43-101 would be the same had the Company prepared the reserve or resource estimates under the standards adopted under the SEC Modernization Rules.

Mineral Resources are not Mineral Reserves, and do not have demonstrated economic viability, but do have reasonable prospects for economic extraction. Measured and Indicated Mineral Resources are sufficiently well defined to allow geological and grade continuity to be reasonably assumed and permit the application of technical and economic parameters in assessing the economic viability of the Mineral Resource. Inferred Mineral Resources are estimated on limited information not sufficient to verify geological and grade continuity or to allow technical and economic parameters to be applied. Inferred Mineral Resources are too speculative geologically to have economic considerations applied to them to enable them to be categorized as Mineral Reserves. There is no certainty that Mineral Resources of any classification can be upgraded to Mineral Reserves through continued exploration.

The Company's Mineral Reserve and Mineral Resource figures are estimates and the Company can provide no assurances that the indicated levels of mineral will be produced or that the Company will receive the price assumed in determining its Mineral Reserves. Such estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. While the Company believes that these Mineral Reserve and Mineral Resource Estimates are well established and the best estimates of the Company's management, by their nature Mineral Reserve and Mineral Resource Estimates are imprecise and depend, to a certain extent, upon analysis of drilling results and statistical inferences which may ultimately prove unreliable. If the Company's Mineral Reserve or Mineral Reserve Estimates are inaccurate or are reduced in the future, this could have an adverse impact on the Company's future cash flows, earnings, results or operations and financial condition.

The Company estimates the future mine life of the Marathon Project. The Company can give no assurance that its mine life estimate will be achieved. Failure to achieve this estimate could have an adverse impact on the Company's future cash flows, earnings, results of operations and financial condition.

#### **Cautionary Note Regarding Forward-Looking Information**

This news release contains certain forward-looking information and forward-looking statements, as defined in applicable securities laws (collectively referred to herein as "forward-looking statements"). Forward-looking statements reflect current expectations or beliefs regarding future events or the Company's future performance. All statements other than statements of historical fact are forward-looking statements. Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "continues", "forecasts", "projects", "predicts", "intends", "anticipates", "targets" or "believes", or variations of, or the negatives of, such words and phrases or state that certain actions, events or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved, including statements relating to the Company's Feasibility Study and results therefrom (including NPV, IRR, capital and operating costs and other financial metrics), Mineral Resource and Mineral Reserve potential, exploration plans, or the ability of the Company and Sibanye Stillwater to vary their respective participating interests in the Marathon Property. All forward-looking statements, including those herein are qualified by this cautionary statement.

Although the Company believes that the expectations expressed in such statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those in the statements. There are certain factors that could cause actual results to differ materially from those in the forward-looking information. These include commodity price volatility, continued availability of capital and financing, uncertainties involved in interpreting geological data, increases in costs, environmental compliance and changes in environmental legislation and regulation, the Company's relationships with First Nations communities, exploration successes, and general economic, market or business conditions, as well as those risk factors set out in the Company's annual information form, the Technical Report that the Company will file in connection with the Feasibility Study and in the continuous disclosure documents filed by the Company on SEDAR at <u>www.sedar.com</u>. Readers are cautioned that the foregoing list of factors is not exhaustive of the factors that may affect forward-looking statements. Accordingly, readers should not place undue reliance on forward-looking statements. The forward-looking statements in this news release speak only as of the date of this news release or as of the date or dates specified in such statements.

Forward-looking statements are based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions relating to: the availability of financing for the Company's operations; operating and capital costs; results of operations; the mine development and production schedule and related costs; the supply and demand for, and the level and volatility of commodity prices; timing of the receipt of regulatory and governmental approvals for development projects and other operations; the accuracy of Mineral Reserve and Mineral Resource Estimates, production estimates and capital and operating cost estimates; and general business and economic conditions.

Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking information. For more information on the Company, investors are encouraged to review the Company's public filings on SEDAR at <u>www.sedar.com</u>. The Company disclaims any intention or obligation to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, other than as required by law.