



GOODMAN **GOLD** CHALLENGE

DÉFI **D'OR** GOODMAN

 **BATTERY METAL EDITION**



UNIVERSITÉ  
**BISHOP'S**  
UNIVERSITY



**FRONTIER**  
LITHIUM

**MAGNA**  
MINING INC.

**GENERATION**  
MINING



# Forward Looking Statement

*According to applicable securities laws, some of the material presented in this presentation contains "forward-looking information," such as "future-oriented financial information" and "financial outlook" (collectively referred to herein as forward-looking statements). Except for statements of historical fact, information contained herein constitutes forward-looking statements and includes, but is not limited to, the (i) projected financial performance of the Company; (ii) completion of, and the use of proceeds from, the sale of the shares being offered hereunder; (iii) the expected development of the Company's business, projects and joint ventures; (iv) execution of the Company's vision and growth strategy, including with respect to future M&A activity and global growth; (v) sources and availability of third-party financing for the Company's projects; (vi) completion of the Company's projects that are currently underway, in development or otherwise under consideration; (vi) renewal of the Company's current customer, supplier and other material agreements; and (vii) future liquidity, working capital, and capital requirements. Forward-looking statements are provided to give potential investors the chance to understand management's beliefs and opinions about the future so they can use those beliefs and opinions as one consideration in assessing an investment, forward-looking statements are offered.*

*These assertions are not promises of future performance; therefore, you shouldn't rely on them too much. The estimates of future performance or results indicated or inferred by such forward-looking statements may differ considerably from actual performance and financial results in future periods because of known and unknown risks and uncertainties. There can be no guarantee that the forward-looking statements in this presentation will prove to be accurate. This is because actual outcomes and future events may differ materially from what is projected in the forward-looking statements, even though management of the company believes that these assumptions are reasonable. Except as required by relevant securities laws, the Company disclaims any duty to update any forward-looking statements if events or management's estimates or opinions should change. The reader is cautioned not to place undue reliance on forward-looking statements.*



# Meet the team





# Agenda

- ❖ Introduction
- ❖ Investment Alternatives
- ❖ The Pitch
- ❖ Analysis
- ❖ Conclusion



# Introduction



# INVESTMENT CRITERIA

## Operations:





# INVESTMENT CRITERIA

## Return:

Investment Horizon	Valuation Upside	IRR Flagship Asset
Production start date	Upside	IRR over 20%
Payback period	Sensitivity	



# CLIENT PROFILE

## DUNDEE CORPORATION



PRESIDENT AND CEO

JON GOODMAN



### MINING

Team of geologists, mining engineers, analysis, investment bankers and financiers.



### COLLABORATION

Staying involved alongside capital partners.



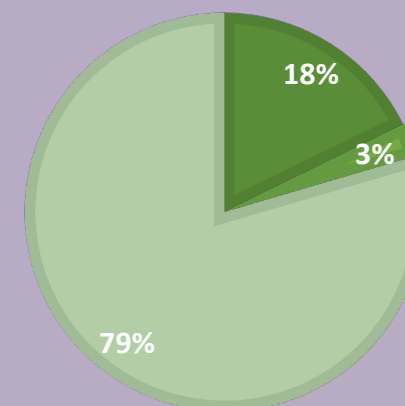
### PURPOSE

Delivering long term and sustainable value that can be profitable at any point in the cycle

Priority: Quick Payback

## PORTFOLIO MAKEUP

Metals and Mining Energy Gold and Precious Metals



1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion





# Investment Alternatives

# INVESTMENT ALTERNATIVES



**Frontier  
Lithium**

4 years

Exploration

1.54%  
*Li<sub>2</sub>O*

517.75 Million



**Generation  
Mining**

4.1 years

Development

0.245  
*avrg. g/t*

129.90 Million



**Magna Mining  
Corp.**

-

Exploration

0.295  
*avrg. g/t*

146.91 Million

1

Introduction

2

Comparison

3

Pitch

4

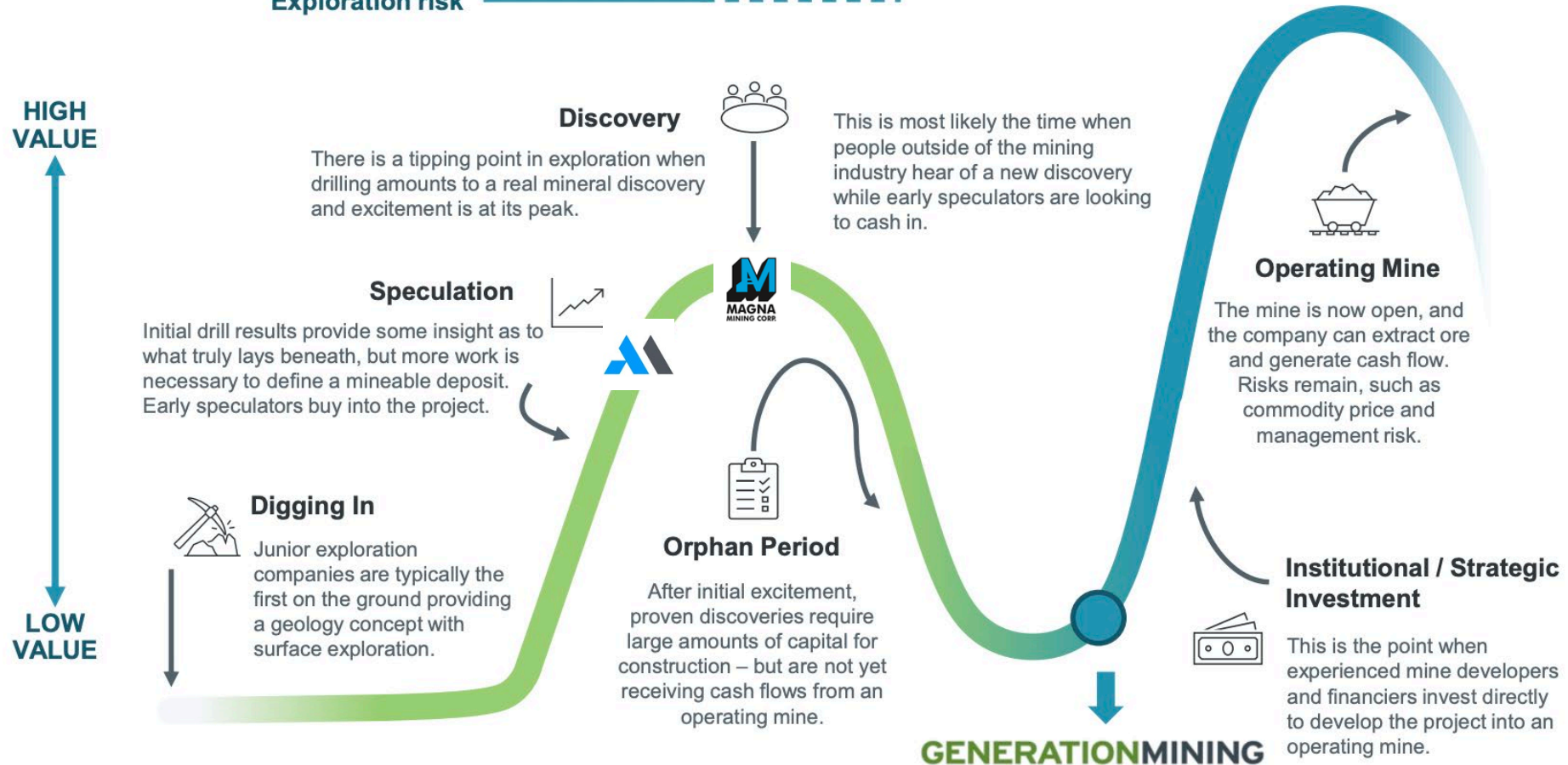
Analysis

5

Conclusion

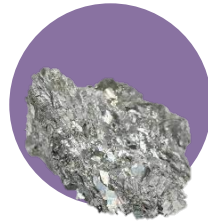


Funding risk  
Technical risk  
Exploration risk





# Metal Comparison



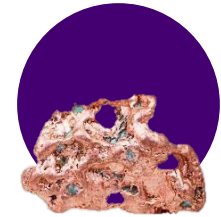
Palladium



Lithium



Nickel






Copper

Use	Catalytic Converters	Batteries	Stainless steel and batteries	Electrical and Industrial
Main Suppliers	South Africa and Russia	Australia	Indonesia	Chile
Main Importers	China	China	China	China
Geopolitical Risk. <i>1 representing low, 5 being high</i>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div><div></div><div></div><div></div><div></div></div>





# INVESTMENT UNIVERSE

	MANAGEMENT EXPERTISE	DEPOSIT	COST STRUCTURE	INVESTMENT HORIZON	VALUATION UPSIDE	IRR FLAGSHIP (management)
	✓	✓	✓	✗	n/a	✗ 21.5
	✓	✓	✓	✓	✓	✓ 29.7
	✓	✓	n/a	✗	n/a	✗ 21.5





# RECOMMENDATION

## GENERATION MINING





The  
Pitch

# Proposed Investment

Embracing Progress: Moving from Palladium to Copper



Investors have been overlooking Generations high value Palladium, Platinum, and platinum deposits. Generation will help provide cleaner emissions to traditional vehicles and provide necessary copper to the renewable energy transition.



Implied Share Price (1Y)	2.88
323.3% Return	
Current Stock Price	0.68
Project Life: 14 years	
Base Case NPV (M)	711.8
Base Case IRR	23%
Feasibility IRR	30%







# ENVIRONMENTAL, SOCIAL AND GOVERNANCE

## Industry Standard

4.65 tons CO2

## Generation Mining

1.5 tons CO2

Enough Copper for  
275,000 electric cars

Evaluating electrical  
mining fleet

Carbon free energy  
source

High efficiency  
equipment

Carbon Capture in  
construction concrete

Water treatment  
plant

1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion



# ENVIRONMENTAL, SOCIAL AND GOVERNANCE

Legally binding conditions

269

ways to address adverse effects on Indigenous people,  
health and socio-economic conditions of people and  
wildlife

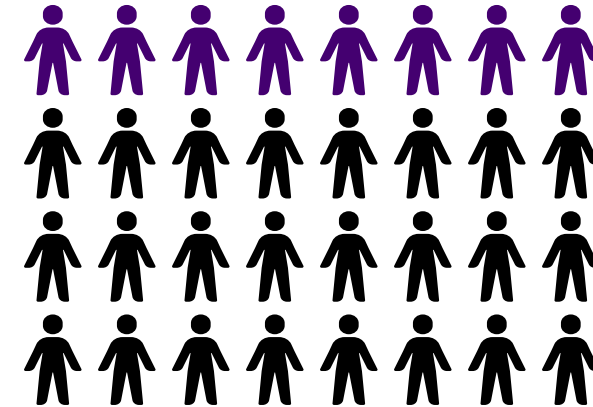
Employees during construction period

450-500

\*375 permanent

## Commitment

25% project workforce from within Biigtigong  
Nishnaabeg



Strengthen Canada's position as global  
leader in responsible and sustainable  
production of critical metals.

1

Introduction

2

Comparison

3

Pitch

4

Analysis

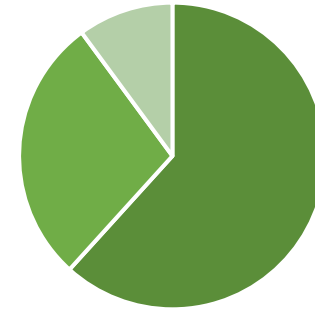
5

Conclusion



# PROJECT

## High-Level Production Profile

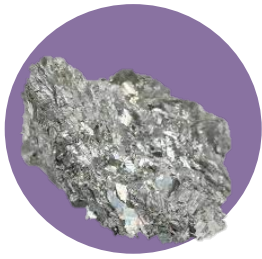


■ Palladium ■ Copper ■ Platinum

	Marathon	Competitor (CleanAir Metals)
Total Tonnage (M&I)	<b>244,874</b>	8,460
Strip Ratio	<b>2.81</b>	9.00
Copper Grade	<b>0.21</b>	0.25
Palladium Grade	<b>0.62</b>	0.98

**All-In-Sustaining-Costs US\$809 per ounce PdEq**





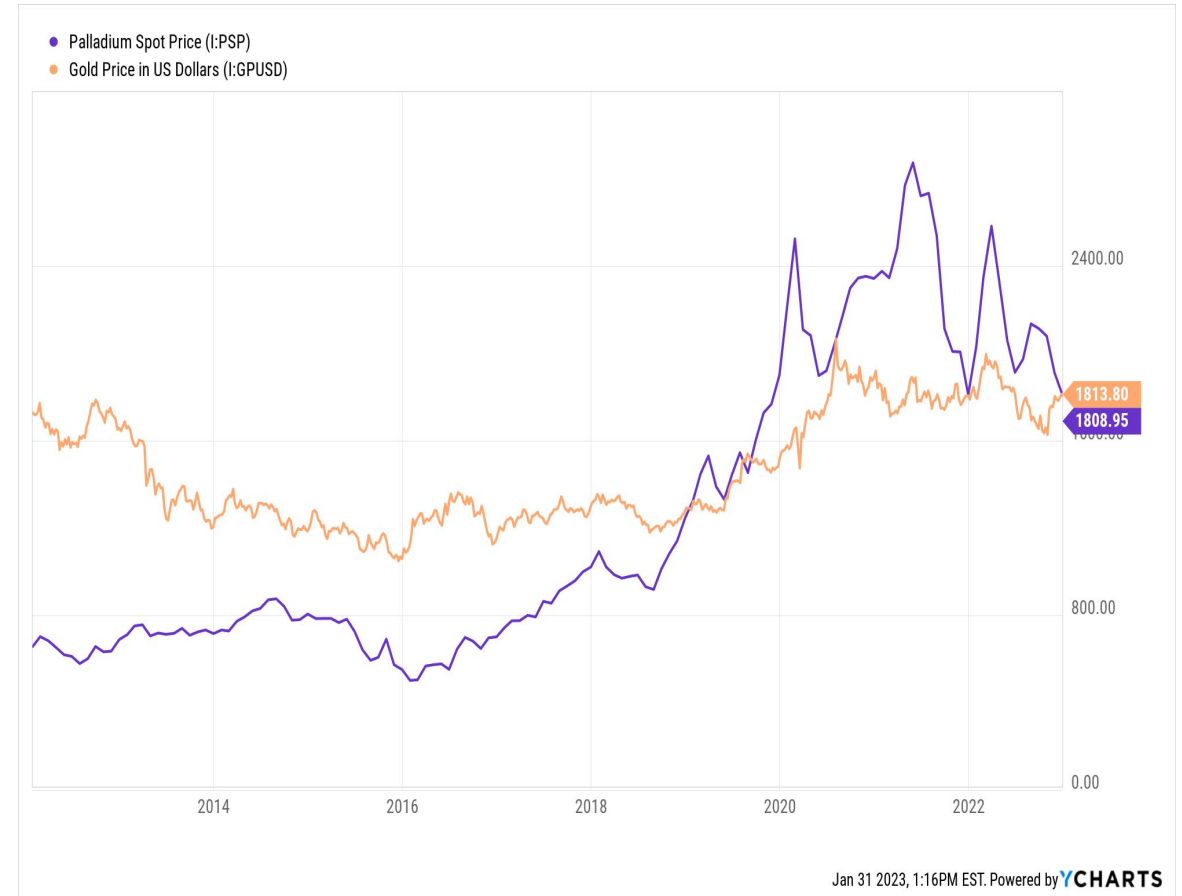
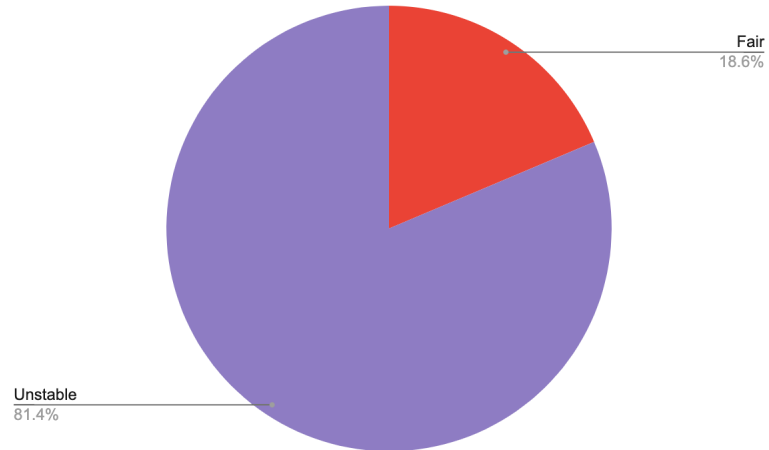
# Palladium

**Feb 3: \$1,627.00 per ounce**

**Catalytic Converter Shortage**

**Ukraine War and South African labour**

**Production volume of palladium worldwide by political stability**



1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion

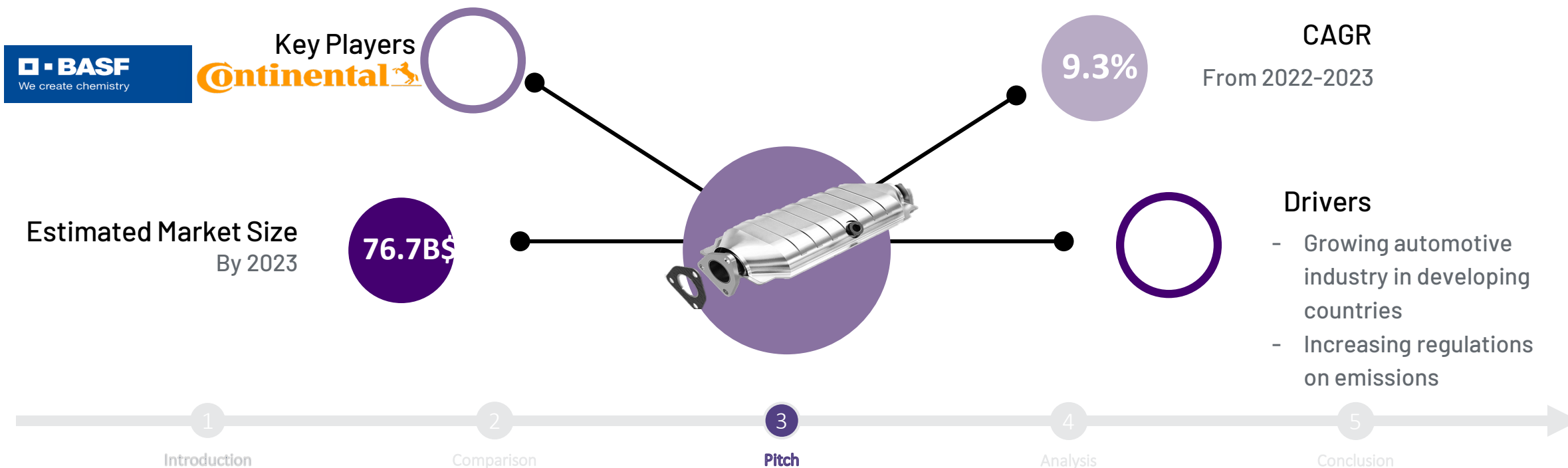
# Catalytic Converters

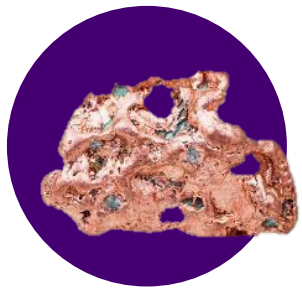


According to J. P. Morgan, over **80% of vehicles** will still require catalytic converters in 2030

African automotive market: expected to grow to 42.06B with CAGR of **5.55%** until 2028

India's Automotive Market valued at **100 Billion USD** in 2021, expected to grow to **160 Billion USD** by 2027 with a registered **CAGR of 8.1%**





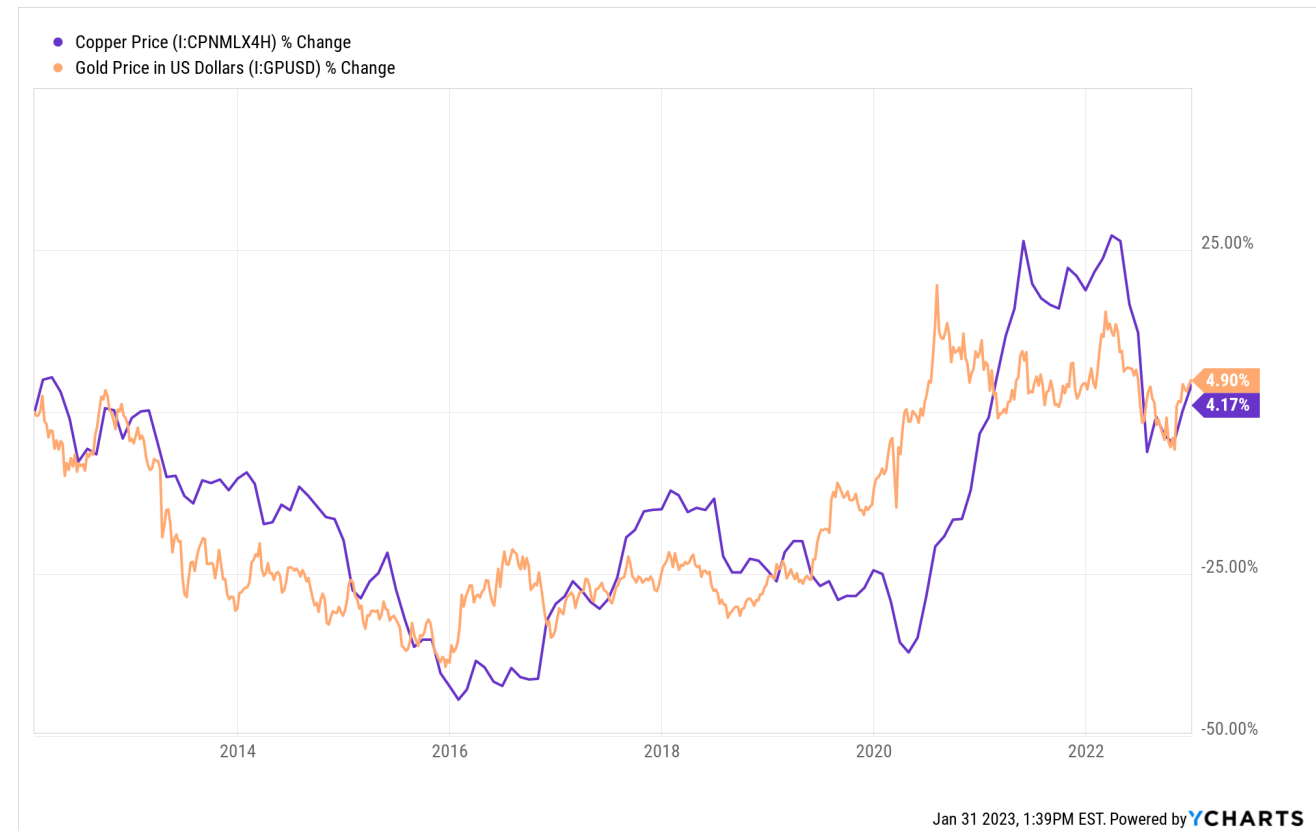
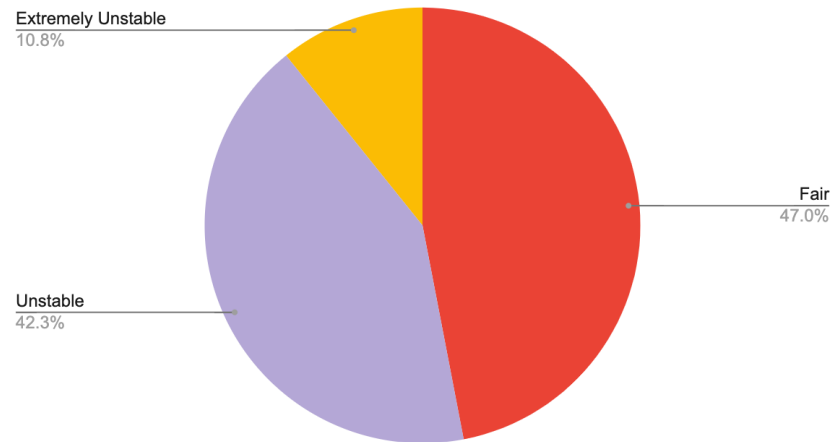
# Copper

Feb 3: 4.05 per pound

Used in everything

Relatively Stable

## Production volume of copper worldwide by political stability



1

Introduction

2

Comparison

3

Pitch

4

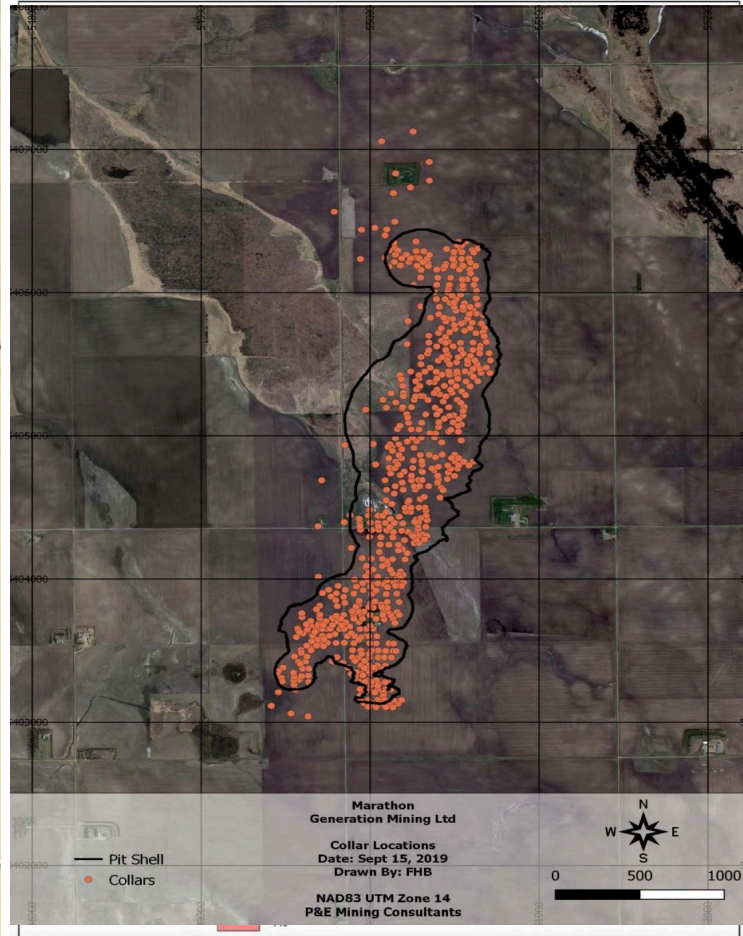
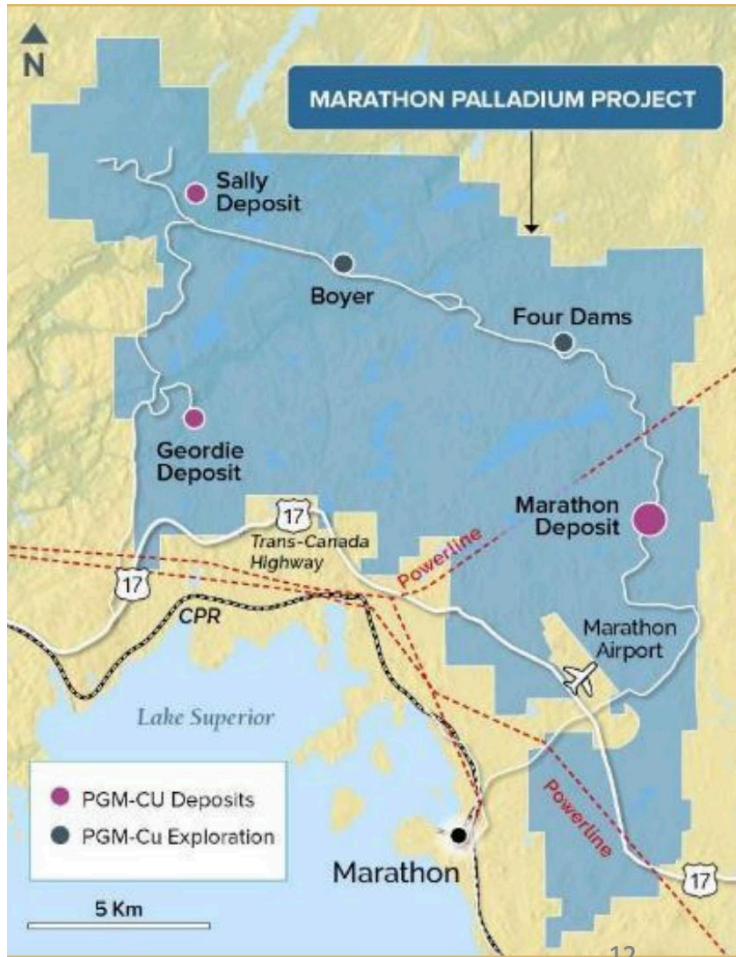
Analysis

5

Conclusion



# Site Overview



## Overarching Competitive Advantage:

- Trans-Canada Highway
- Served by CPR main rail line
- Marathon airport
- Carbon-free/inexpensive power potential
- Workforce potential
- Future exploration potential (*Sally and Geordie Deposits*)
- Strong Support from location town of Marathon

1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion



# Investment



**Eric Sprott:**  
**Net Worth: \$1.1B**

Self Made Asset manager, Precious metals fanatic



Institutional Shareholders	Percentage
Eric Sprott	8.2%
Zebra Holdings	8.0%
Sibanye Stillwater	8.0%
Osisko Mining	4.0%
Officers & Directors	6.5%

Capital Structure	
Shares Outstanding	170.2M
Total Liabilities	48.5M
Cash From Financing Activities	23.25M
Fully Diluted Shares Outstanding	180.4M
Basic Market Capitalization	\$139M

1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion





Management team:  
FINANCE EXPERTS:

**JAMIE LEVY**  
PRESIDENT AND CEO

**Yrs. Experience:** 25  
**Prev.:** Finepoint mining  
and Pinetree capital

**BRIAN JENNINGS**  
CPA, CA, B.SC  
CHIEF FINANCIAL OFFICER

**Prev.:** Ernst and Young

**CHRISTOPHER STACKHOUSE**  
CA  
VP, FINANCE

**Prev.:** PWC, Guyana  
Goldfields, Aurora Gold Mine  
**Audit and Assurance Group**

**JEAN-PAUL DECO**  
CA  
MGR. BUS. DEV.

**Prev.:** Glencore, KPMG  
**Audit-Articles**

**Insider ownership: 7%**  
*management and board interested are aligned with shareholders.*





# Management team:

## MINING INDUSTRY EXPERTS:



### Learning Experience:

Placer Dome is the subject of many controversies, providing a great learning experience



### Success Story:

Barrick Gold is the #2 highest earning mine in Canada

### DREW ANWYLL

M.ENG,P.ENG  
CHEIF OPERATIONS OFFICER



**Yrs. Experience:** 31

**Prev.:**Placer Dome, Barrick Gold, Detour Gold, and Gold Source Mines



### ANN WILKINSON

VICE PRESIDENT, INVESTOR RELATIONS

**Prev: VP Investor Relations**  
**Gold Quest mining Corp,**  
**Colossus Minerals, TMAC**  
**Resources**



### MAURO BASSOTTI

P.SC HON  
VP, GEOLOGY



**Prev.:** Ma'aden, Detour Gold, New Gold, Barrick and Placer Dome



### RUBEN WALLIN

VP SUSTAINABILITY

**Expert:** Environment, Permitting, Indigenous and Gov. relations  
**Prev.:** Placer Dome, Detour Gold, Barrick and Osisko



1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion

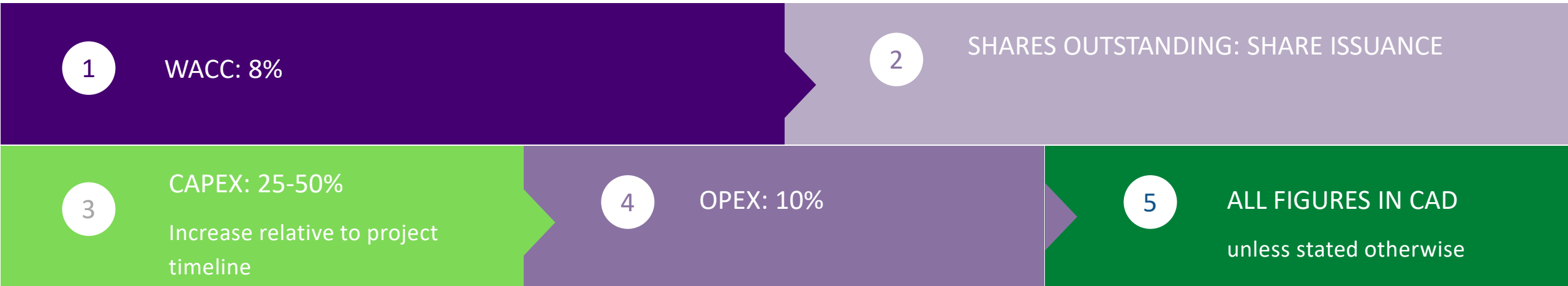


# Analysis

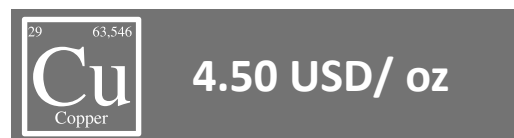
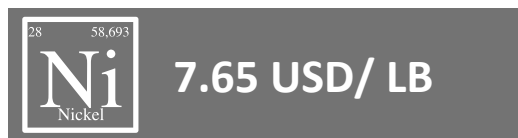
# Key Assumptions



*Baseline assumptions for comparative evaluation*



## Base-case price assumptions



# Frontier Lithium

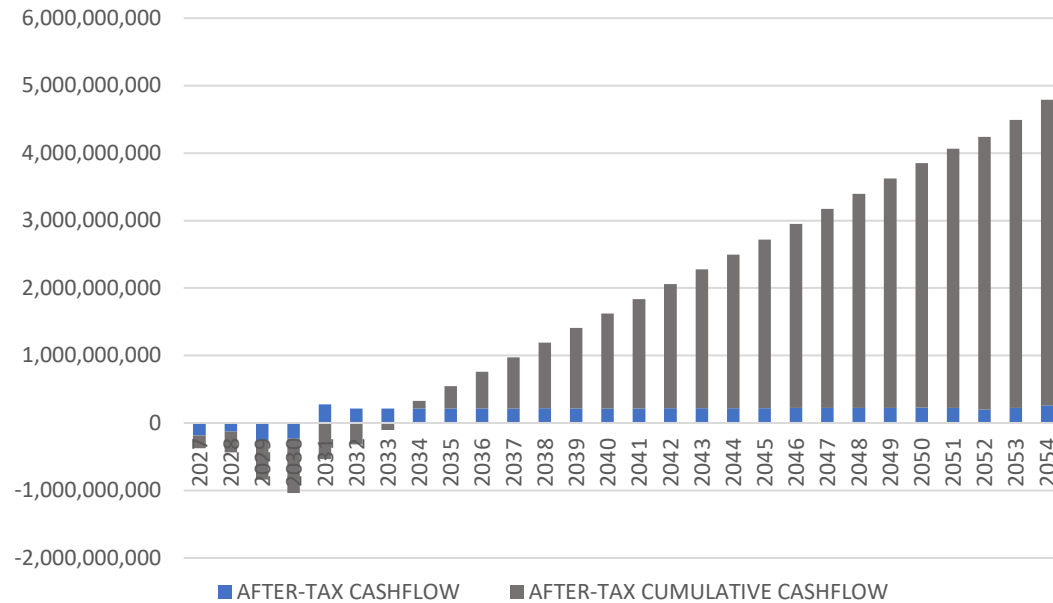
North America's highest-grade large tonnage Lithium Resource



## Financial Valuation:

### Cash Flow Forecast

8% discount



Modelled Payback: 9.8

Modelled NPV: 9,456 M

Project Life: 26 years

IRR: 19%

### STRENGTHS

- Deposit Grade

### OPPORTUNITIES

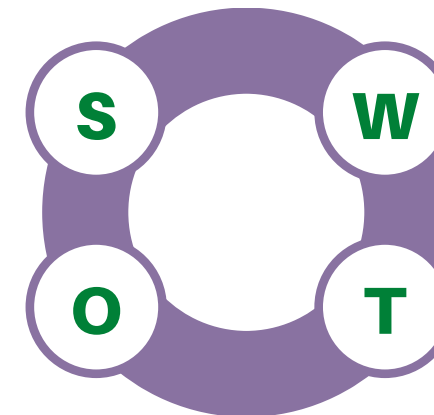
- Chemical Plant

### WEAKNESSES

- Timeline
- Uncertainty
- Lack of infrastructure
- No indigenous consent

### THREATS

- Lithium saturation
- Permitting



1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion

# Magna Mining

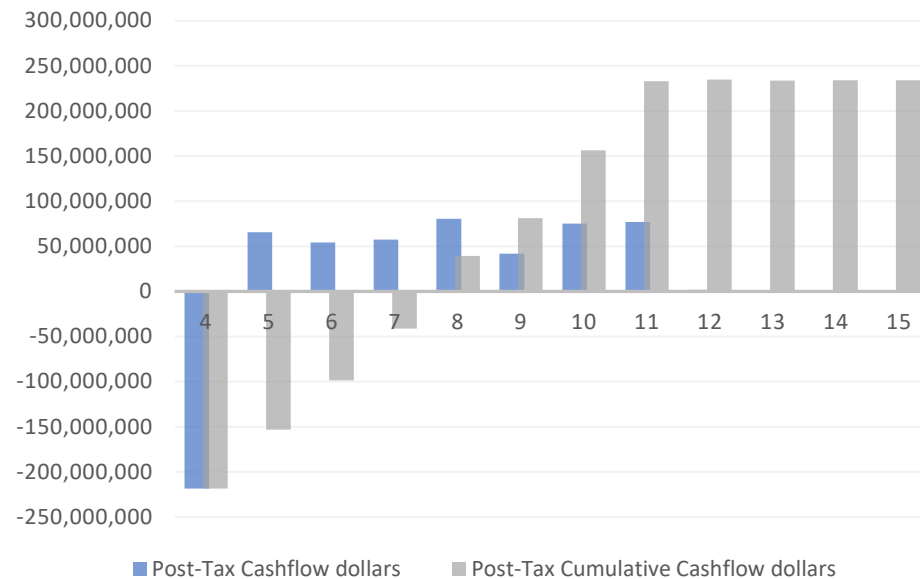
*Sudbury's next nickel producer*



## Financial Valuation:

### Cash Flow Forecast

8% discount



**NPV: 96 M**

**Project Life: 7 years**

**IRR: 18.9%**

### STRENGTHS

- Optionality
- Workforce
- Infrastructure
- Proven model

### OPPORTUNITIES

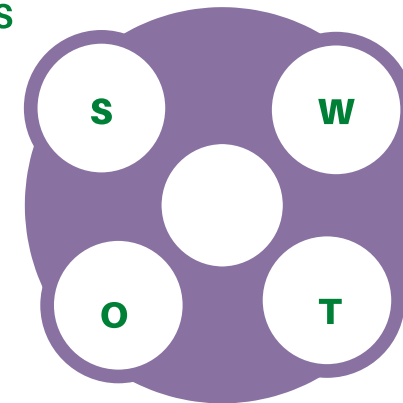
- toll mining

### WEAKNESSES

- Timeline
- Uncertainty
- Management expertise does not lie in open pit

### THREATS

- Operational uncertainty



**Modelled Payback: 4.4 Years**

1

Introduction

2

Comparison

3

Pitch

4

**Analysis**

5

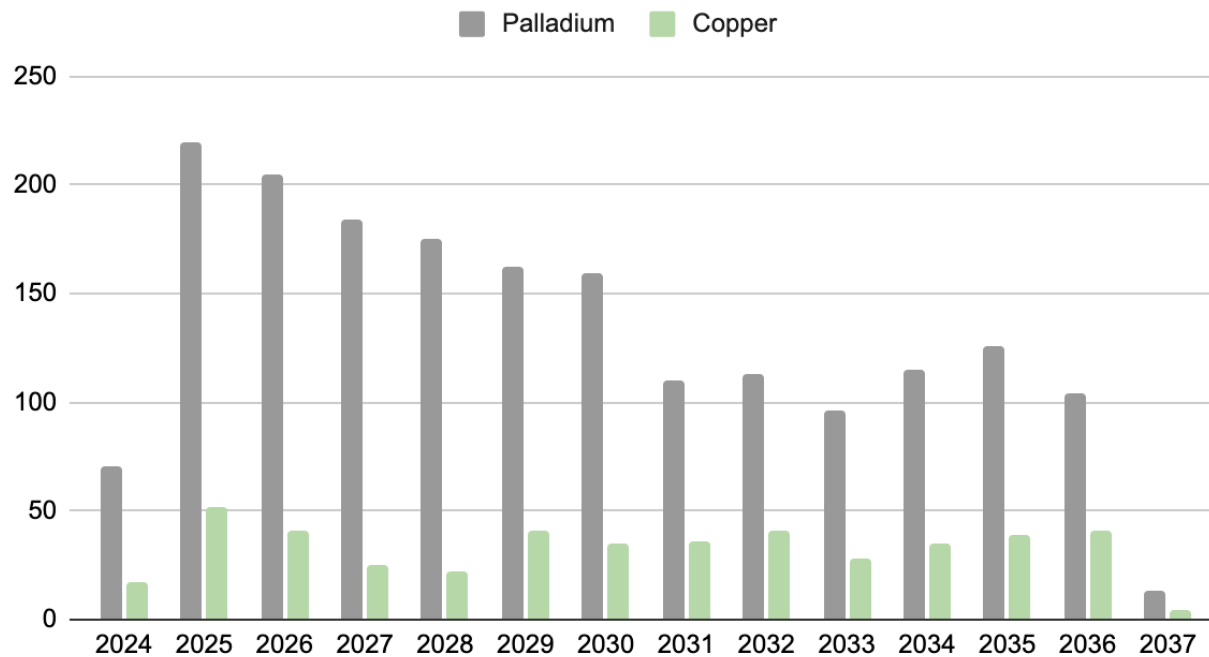
Conclusion



# A Unique Production Profile

## GENERATION MINING

Palladium and Copper



**2021:**  
**Mine Life: 13-years**  
**Pd: 2.03Moz**  
**Cu: 500M Lbs**  
**Pt: 634K oz of Pt**

***Differentiators:***  
***high-grade palladium and copper, reduce***  
***risk of decreasing palladium***

**2029:**  
***70% of palladium will be mined, copper to mitigate***

1

Introduction

2

Comparison

3

Pitch

4







Analysis

5

Conclusion



# Base Case/ Valuation Analysis

		2020 Feasibility Study	Modelled
	Discount Rate	5%	8%
	Milled Tonnage	117.7M	115M
	Mine Life	14 Years 2024 to 2037	14 Years 2025 to 2038
	Operating Costs	Capex \$1,205M OPEX: 2,731M	CAPEX: 1,469M OPEX: 3,003M
	USD to CAD	1.28 (USD to CAD 20y AVG)	1.28 (USD to CAD 20y AVG)
	Palladium. Price	2023 Spot Price – 15%	2023 Spot Price – 20%





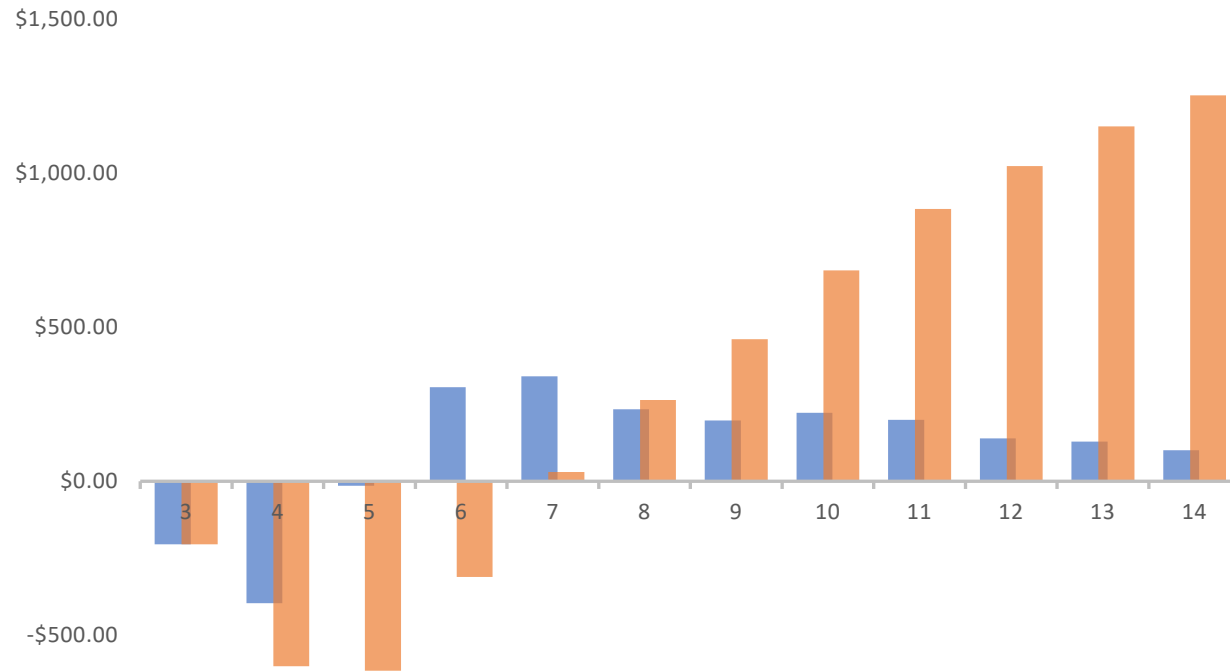


# Generation Mining: Modelled NPV

Cash Flow Forecast

8% Discount Rate

Generation Mining Cash Flow Analysis



Modelled Payback: 4.5 years

After Tax NPV: 711.68M

(+) Cash 28.52

(-) Net Debt: 48.5

NAVPS:  
3.83

+ 462%

1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion



# Sensitivity Analysis

Profitability is incredibly sensitive to changes in OPEX, CAPEX, and commodity prices

NPV (\$M) Sensitivity to Increase/ Decrease in Operating and Capital Cost's										
Capex										
OPEX	\$711.68	70%	80%	90%	100%	110%	115%	125%	130%	135%
	70%	1,718.18	1,636.94	1,555.69	1,474.45	1,393.21	1,352.59	1,271.35	1,230.72	1,190.10
	80%	1,578.26	1,497.02	1,415.78	1,334.53	1,253.29	1,212.67	1,131.43	1,090.81	1,050.19
	90%	1,438.34	1,357.10	1,275.86	1,194.62	1,113.37	1,072.75	991.51	950.89	910.27
	100%	1,298.43	1,217.18	1,135.94	1,054.70	973.46	932.84	851.59	810.97	770.35
	110%	1,158.51	1,077.27	996.03	914.78	833.54	792.92	711.68	671.06	630.44
	115%	1,088.55	1,007.31	926.07	844.82	763.58	722.96	641.72	601.10	560.48
	125%	948.63	867.39	786.15	704.91	623.67	583.04	501.80	461.18	420.56
	130%	878.68	797.43	716.19	634.95	553.71	513.09	431.84	391.22	350.60
	135%	808.72	727.48	646.23	564.99	483.75	443.13	361.89	321.26	280.64

\$	2.88	\$ 1,696.32	\$ 1,785.60	\$ 1,984.00	\$ 2,083.20	\$ 2,187.36
6%	\$	2.35	\$ 2.79	\$ 3.74	\$ 4.22	\$ 4.72
7%	\$	2.00	\$ 2.40	\$ 3.29	\$ 3.73	\$ 4.20
8%	\$	1.68	\$ 2.05	\$ 2.88	\$ 3.30	\$ 3.73
9%	\$	1.40	\$ 1.74	\$ 2.52	\$ 2.90	\$ 3.31
10%	\$	1.14	\$ 1.47	\$ 2.19	\$ 2.55	\$ 2.93
11%	\$	0.91	\$ 1.21	\$ 1.89	\$ 2.23	\$ 2.58

Sensitized model demonstrates Generation's ability to withstand unfavorable cyclical conditions

1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion

# DCF Valuation



Generation Mining		GENM.TO	
DCF Scenario: Base Case		Key Assumptions:	
Flagship Project: Marathon Palladium Deposit		Modelled Current Price	
Selected WACC		8%	
Payback Period			
After Tax NPV (\$M)		\$711.68	
Project IRR		23%	
		Palladium Price	\$1,984.00
		Copper Price :	\$5.76
		Project Life	14 Years
		Total Initial Capex (M)	(1,218.44)
		PEA Initial Capex Estima	(\$600.00)
		Closure Costs	(509.75)
		Exchange Rate	1.28

Period	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Revenue (\$M)	0.00	0.00	267.36	829.77	752.73	628.65	582.90	642.08	598.93	485.91	532.58	412.60	486.60	547.46	506.82	57.13
%growth				67.78%	-10.23%	-19.74%	-7.85%	9.22%	-7.20%	-23.26%	8.76%	-29.08%	15.21%	11.12%	-8.02%	-787.17%
EBITDA	\$0.00	\$0.00	\$168.36	\$583.37	\$505.23	\$374.55	\$325.70	\$388.08	\$348.13	\$243.91	\$286.18	\$177.20	\$253.40	\$329.66	\$318.72	\$25.23
(-) Initial Capital	(268.75)	(453.75)	(77.50)	-	-	-	-	-	-	-	-	-	-	-	-	-
(-) Contingency Costs	(31.25)	(41.25)	(21.25)	-	-	-	-	-	-	-	-	-	-	-	-	-
(-) Sustaining Capital	-	(1.00)	(80.00)	(85.00)	(35.00)	(40.00)	(41.25)	(27.50)	(43.75)	(27.50)	(51.25)	(23.75)	(10.00)	(41.25)	(2.50)	-
(-) Closure Costs	-	-	-	-	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(55.00)
(-) Change in NWC	(3.00)	(15.00)	(29.00)	(50.00)	26.00	8.00	3.00	(2.00)	3.00	10.00	(3.00)	8.00	(6.00)	(5.00)	3.00	52.00
Equip Financing Drawdowns	43.00	25.00	32.00	-	-	-	-	-	-	-	-	-	-	-	-	-
Equip Financing Costs	(5.00)	(9.00)	(14.00)	(19.00)	(19.00)	(22.00)	(14.00)	(12.00)	(4.00)	(1.00)	-	-	-	-	-	-
Taxes																
FCFF	-\$265.00	-\$495.00	-\$22.39	\$327.37	\$358.23	\$228.55	\$189.45	\$250.58	\$215.38	\$170.41	\$163.93	\$121.45	\$177.40	\$205.41	\$248.22	\$21.23
Free Cash Flow growth		-46.46%	2110.67%	106.84%	8.62%	-56.74%	-20.64%	24.39%	-16.34%	-26.39%	-3.95%	-34.98%	31.54%	13.64%	17.25%	-1069.31%
WACC	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Projection Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FV FCFF	-\$265.00	-\$495.00	-\$22.39	\$327.37	\$358.23	\$228.55	\$189.45	\$250.58	\$215.38	\$170.41	\$163.93	\$121.45	\$177.40	\$205.41	\$248.22	\$21.23
(-) Discount Factor	0.93	0.86	0.79	0.74	0.68	0.63	0.58	0.54	0.50	0.46	0.43	0.40	0.37	0.34	0.32	0.29
PV FCFF (\$M)	-\$245.37	-\$424.38	-\$17.78	\$240.62	\$243.81	\$144.03	\$110.54	\$135.38	\$107.74	\$78.93	\$70.31	\$48.23	\$65.23	\$69.93	\$78.25	\$6.20

Equity Value	\$691.73
Shares outstanding (M)	240
Value (\$ CAD)	\$2.88





# Comparable Company Analysis

(CAD)	Price	Market Cap (M)	Enterprise Value (M)	P/NAV
<b>Clean Air Metals Canada</b> Thunder Bay North Project	\$ 0.13	29	200.67	0.15
<b>Granit Creek Copper</b> Carmacks Project	\$ 0.08	45	300	0.15
<b>Copper Mountain Mining Corp.</b> Copper Mountain Project	\$ 2.16	454	1245	0.36
<b>Argonaut Gold</b> Margino Gold Project	\$ 0.63	527	538.88	0.98
<b>IAMGOLD</b> Côté Gold Project	\$ 3.58	1710	1109	1.54
<b>Average</b>	\$ 1.32	553	678.71	0.64
<b>Generation Mining Marathon Project</b>	\$ 0.67	121	1068	0.11

P/NAV Average	0.64
Derived Market Cap	680
Outstanding Shares (M)	180.4
<b>Derived Stock Price</b>	<b>\$ 3.77</b>
<b>Upside</b>	<b>463%</b>

## Key Takeaway

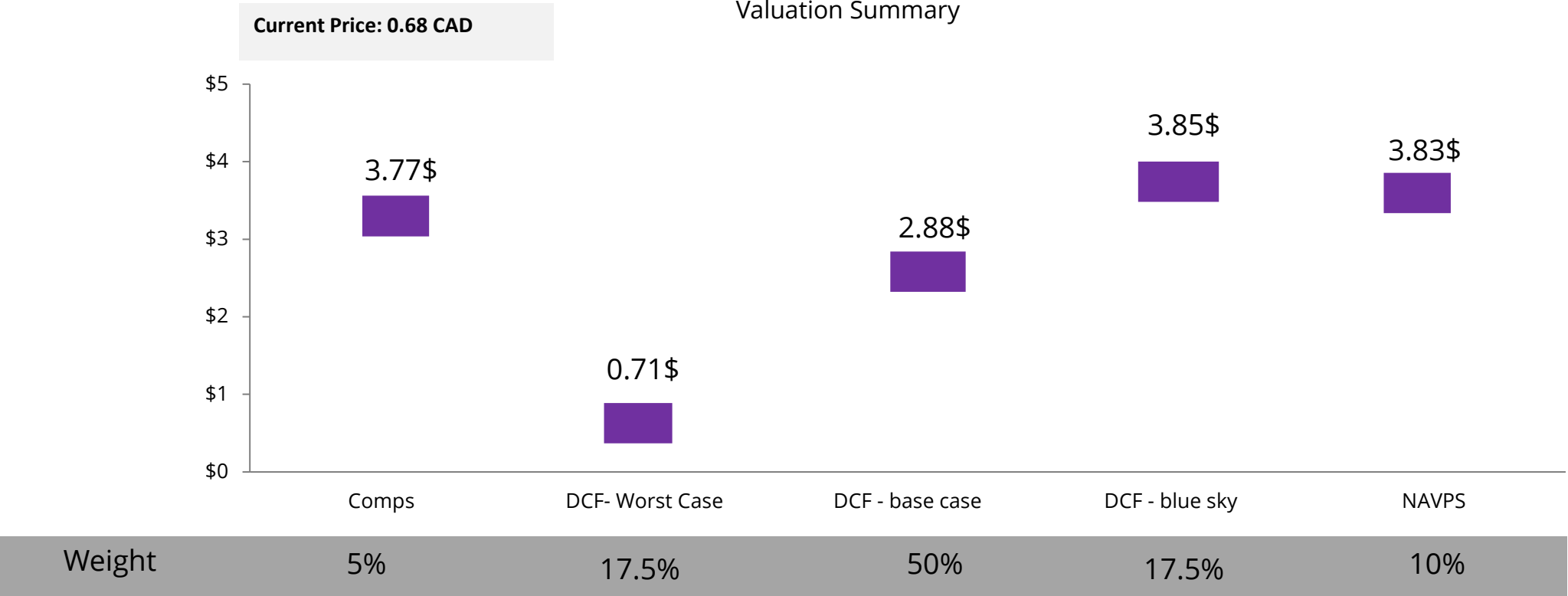
Compared to other junior mining companies in the development phase, Generation Mining is undervalued.



# Valuation Summary



Valuation Summary



Weighted average: \$ 2.80






# Conclusion





# Risks and Catalysts

## RISKS




### Permit Delays

 Lack of permits would result in the project ending

### Inflation

  Inflation could significantly increase initial CAPEX

### Access to Financing



   Lack of financing could disrupt timeline/project

## CATALYSTS

### Continued Geopolitical instability

 Position Canadian Pallidum positively

### Rapid Financing

  Lower time to production

### Nearby Mine construction ends

   Easy acquisition of workforce





# Conclusion

## GENERATION MINING



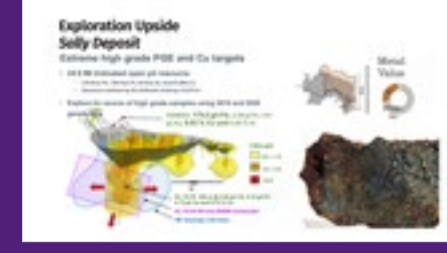
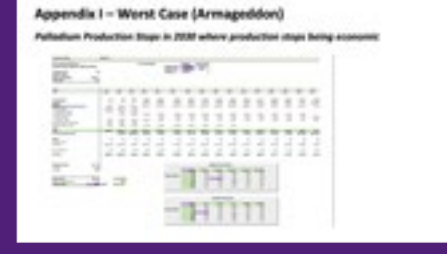
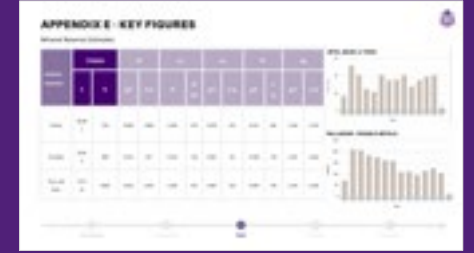
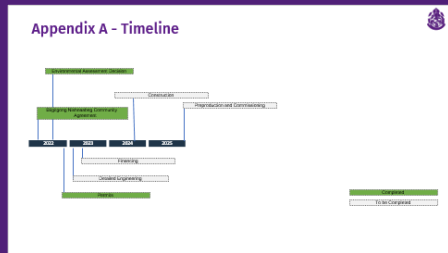




*Thank You*  
Questions?

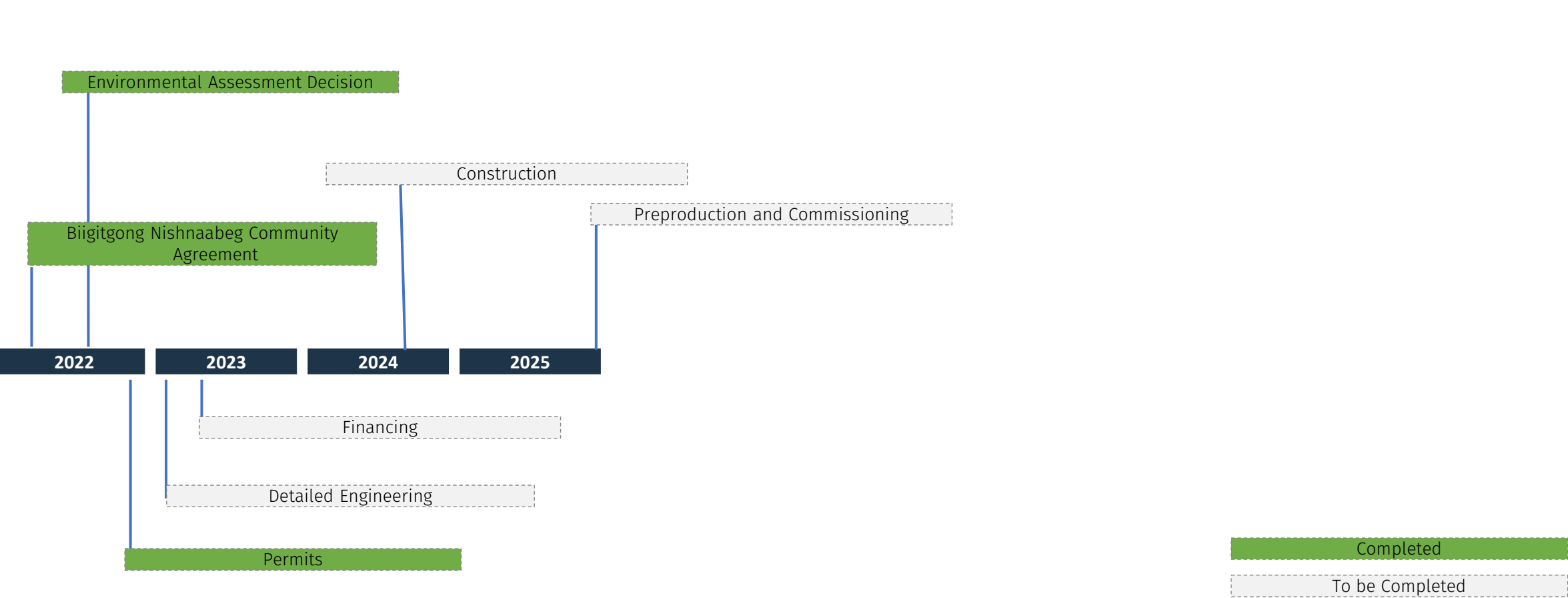


# Appendix



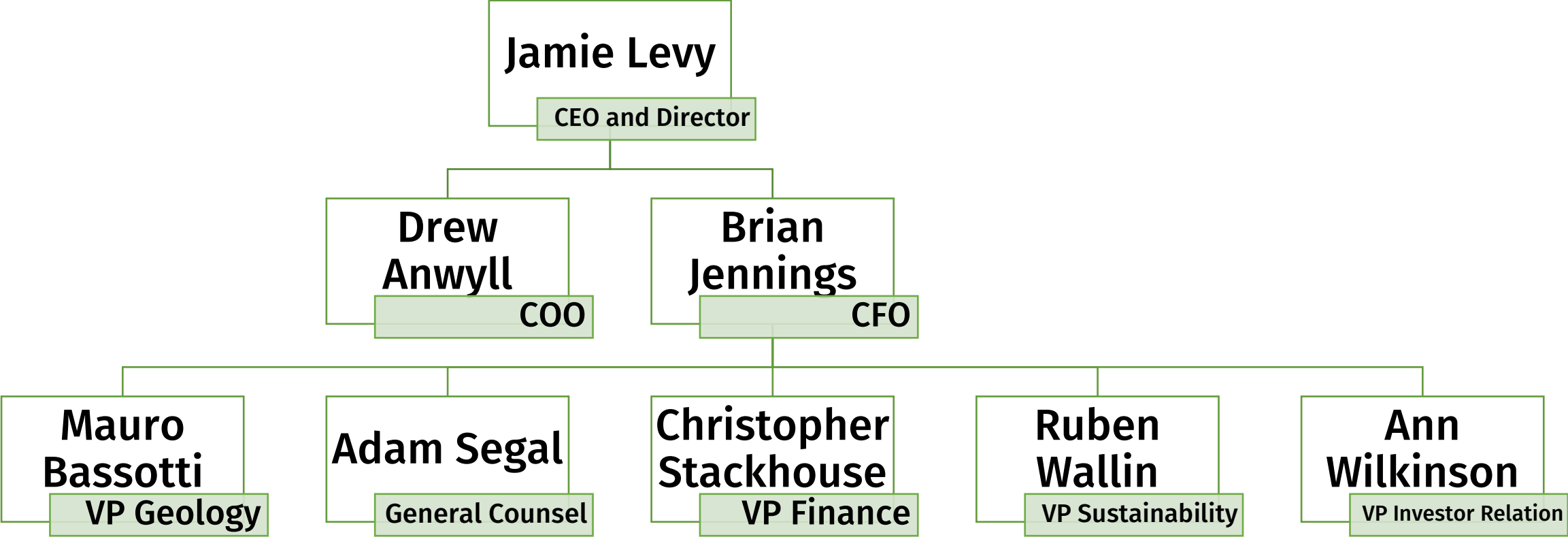


# Appendix A - Timeline





# Appendix B - Management





# Appendix C - Management



## Mining Expert

Team Expertise
Geologists, mining engineers, analysis, investment bankers and financiers
Methodology
De-risk investments by analyzing geological, technical, social, business and political risks



## Diligent, disciplined and creative

Long-term Value
Dundee group structures their deals with the purpose of delivering LT, sustainable value.
High-quality assets
That can be profitable at any point in the cycle



## Partnering Collaboratively

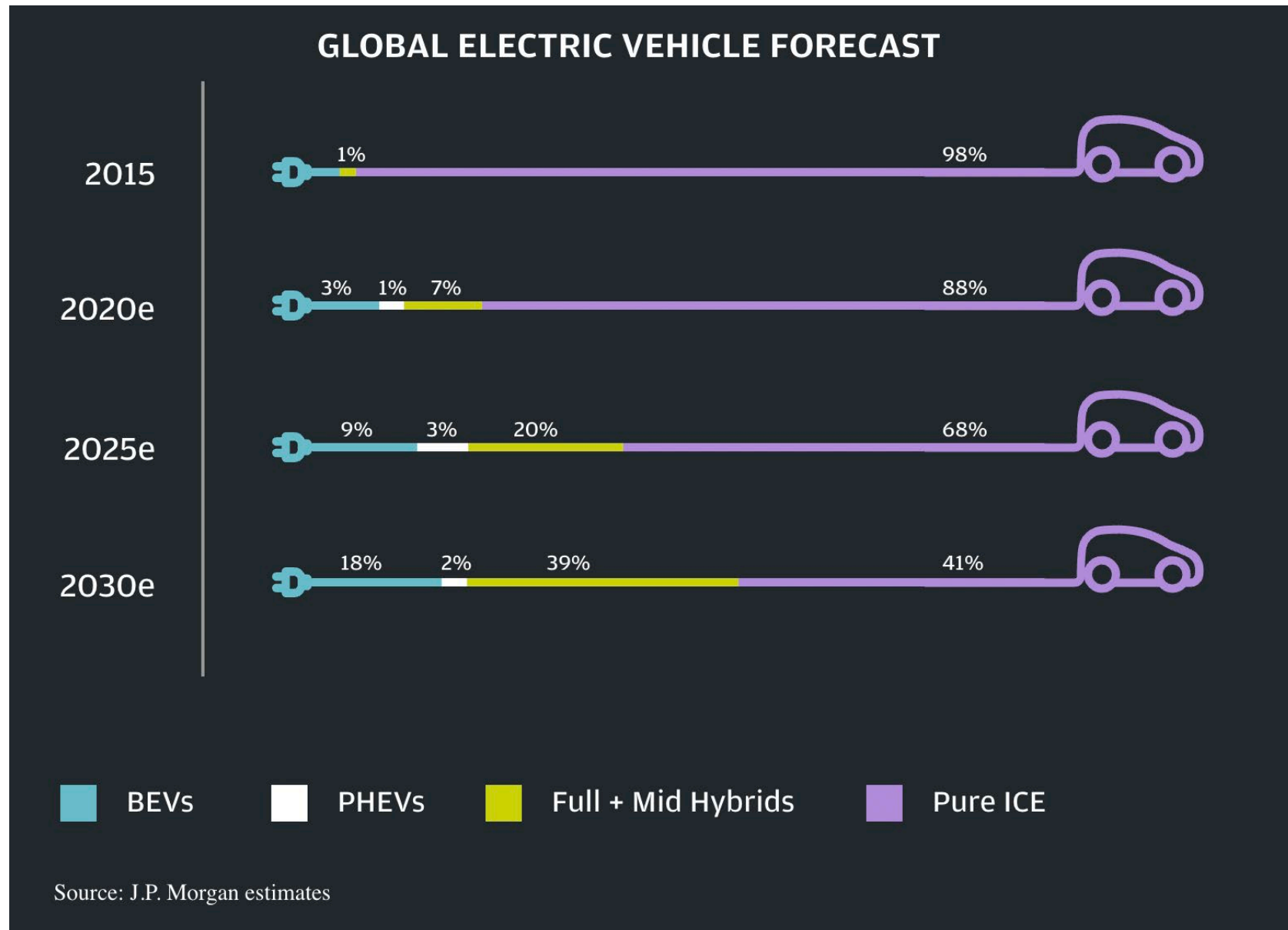
Partnership
Sharing findings from evaluations and due diligence with investees for mutual benefit
Hands-on
Dundee stays involved alongside capital partners



## Purpose

Best available practices in place
Anti-speculative
Deliberate investment decisions – no exorbitant fees on the deals Dundee structures

# Appendix D – Global Electric Vehicle Forecast

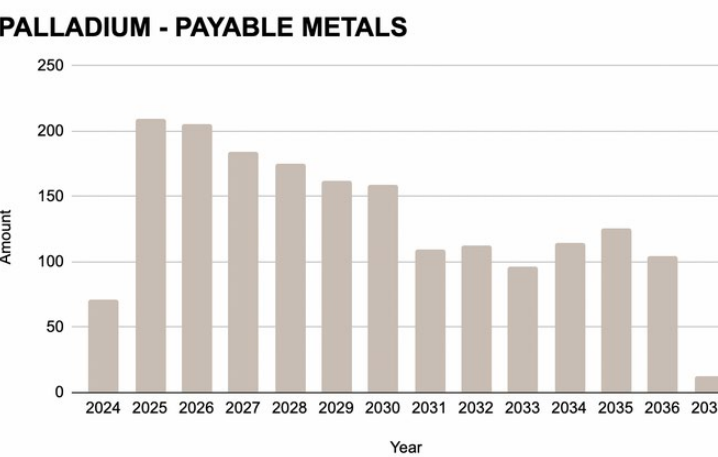
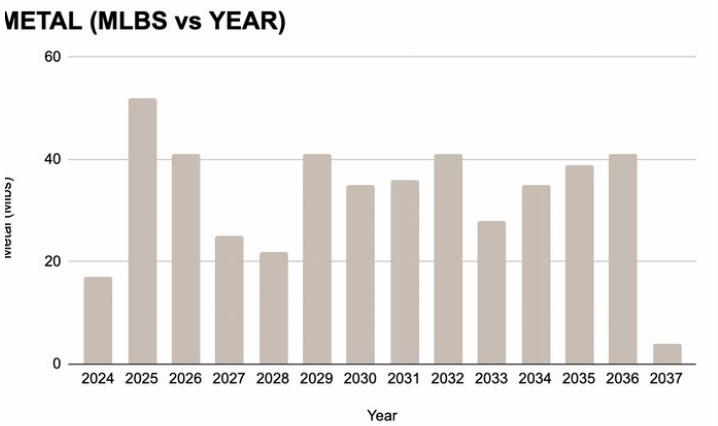




# APPENDIX E - KEY FIGURES

## Mineral Reserve Estimates

MINERAL RESERVES	TONNES		Pd		Cu		Au		Pt		Ag	
	K	%	g/t	k oz	%	M lbs	g/t	k oz	g/t	k oz	g/t	k oz
Proven	85,091	72%	0.660	1,805	0.202	379	0.070	191	0.212	581	1.359	3,719
Provable	32,610	28%	0.512	537	0.213	153	0.061	64	0.168	176	1.541	1,616
Prov. and Prob.	117,701	100%	0.619	2,342	0.205	532	0.067	255	0.200	756	1.410	5,336



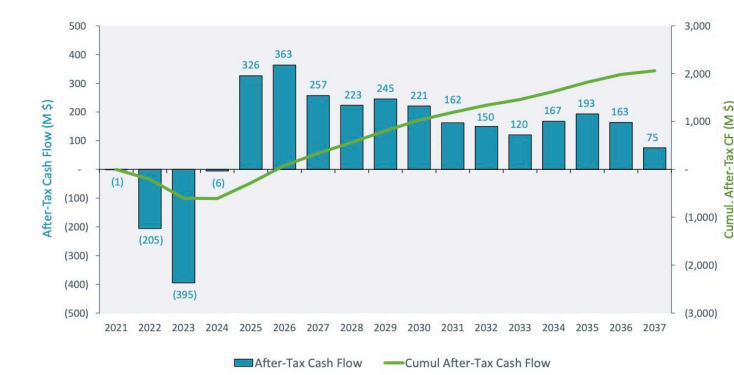


# APPENDIX F - Generation Mining – GENM.TO

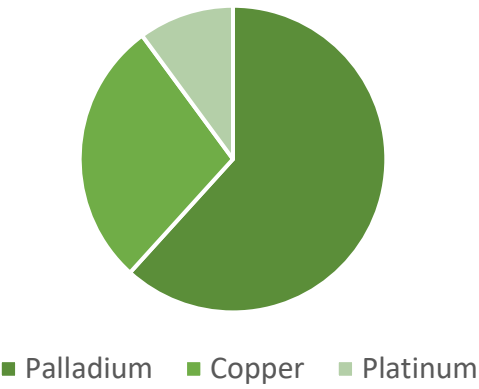
## Company Highlights

- Robust Feasibility Study and infrastructure
- **Favorable Metals:** Palladium and Copper (EV batteries use lithium-ion technology, hydrogen is produced using special membranes, hydrogen can be stored using palladium nanoparticles, and the EU plans to reduce emissions by 50% in 2027 through new laws.)
- Leadership Team
- **Trading at discount to NPV**
- Operations for 13 years in a location with favorable mining regulations, producing 245,000 oz of palladium-equivalent per year at a low cost of \$809 per oz of palladium-equivalent.

## Base Case – CF CAD\$



## Revenue Distribution







## APPENDIX G

“

The minerals mined through this project, mainly palladium and copper, will play an important role in Canada's transition to a low-carbon economy.

”

—Honourable Steven Guilbeault

*Minister of Environment and Climate Change*

1

Introduction

2

Comparison

3

Pitch

4

Analysis

5

Conclusion

## Appendix H - CORE VALUES

Charitable  
Giving

Educational  
Support

Health and  
Safety

Environmental  
Management

Collaborative  
Community  
Relationships

Social  
Accountability



# Appendix J– Cash Flows

Generation Mining	Total	-2	-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Marathon Palladium Project Cash Flow		Half Year Adjustment															
Production																	
Mill Feed Total (Kt)	454.6	3.0	10.4	24.0	40.0	40.0	40.0	39.8	40.0	39.2	40.0	40.2	35.2	29.3	18.7	7.4	7.4
Strip Ratio																	
Mill Feed- Pt Grade (g/t)		17.00%	15.00%	23.00%	25.00%	19.00%	14.00%	12.00%	24.00%	19.00%	22.00%	23.00%	19.00%	21.00%	22.00%	26.00%	
Mill Feed- Cu Grade (g/t)		59.00%	125.00%	75.00%	81.00%	154.00%	164.00%	141.00%	113.00%	139.00%	181.00%	137.00%	135.00%	149.00%	173.00%	199.00%	
Mill Feed- Pd Grade (g/t)		6.00%	7.00%	7.00%	6.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	6.00%	7.00%	6.00%	6.00%	7.00%	
Mill Feed- Pd Grade (g/t)		17.00%	21.00%	19.00%	19.00%	23.00%	26.00%	27.00%	22.00%	19.00%	15.00%	15.00%	19.00%	15.00%	17.00%	18.00%	
Mill Feed- Pd Grade (g/t)		60.00%	62.00%	70.00%	73.00%	67.00%	70.00%	72.00%	67.00%	64.00%	50.00%	46.00%	52.00%	52.00%	53.00%	53.00%	
Capital Costs (CA\$ million)																	
Contingency Costs	(93.75)	(31.25)	(41.25)	(21.25)	-	-	-	-	-	-	-	-	-	-	-	-	-
Initial Capital	(800.00)	(268.75)	(453.75)	(77.50)													
Total Initial Capital	(893.75)	(300.00)	(495.00)	(98.75)													
Sustaining Capital	(509.75)	0.00	(1.00)	(80.00)	(85.00)	(35.00)	(40.00)	(41.25)	(27.50)	(43.75)	(27.50)	(51.25)	(23.75)	(10.00)	(41.25)	(2.50)	0.00
Salvage value	0.00																
Closure Costs	(66.00)		0.00	0.00	0.00	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(55.00)
Capex % Increase	1.25																
Total Capital Costs	(1,469.50)	(375.00)	(620.00)	(223.44)	(106.25)	(45.00)	(51.25)	(52.81)	(35.63)	(55.94)	(35.63)	(65.31)	(30.94)	(13.75)	(52.81)	(4.38)	(68.75)
Operating Costs (CA\$Million)																	
Mining Costs	(1,173.70)			(42.90)	(107.80)	(103.40)	(103.40)	(103.40)	(99.00)	(101.20)	(97.90)	(103.40)	(96.80)	(90.20)	(73.70)	(44.00)	(6.60)
Processing	(1,151.70)			(33.00)	(85.80)	(92.40)	(92.40)	(92.40)	(92.40)	(92.40)	(92.40)	(92.40)	(92.40)	(92.40)	(92.40)	(92.40)	(16.50)
G&A	(316.80)			(7.70)	(16.50)	(16.50)	(28.60)	(30.80)	(31.90)	(28.60)	(24.20)	(25.30)	(23.10)	(26.40)	(26.40)	(26.40)	(4.40)
Transport/ Refining	(196.90)			(7.70)	(20.90)	(19.80)	(16.50)	(15.40)	(16.50)	(15.40)	(14.30)	(14.30)	(12.10)	(13.20)	(14.30)	(14.30)	(2.20)
Concrete Transport & Insurance	(160.60)			(6.60)	(15.40)	(15.40)	(13.20)	(13.20)	(13.20)	(13.20)	(13.20)	(11.00)	(11.00)	(11.00)	(11.00)	(11.00)	(2.20)
Royalties	(4.10)			(1.10)	-	-	-	(2.00)	(1.00)	0.00	-	-	-	-	-	-	-
Opex % Increase	1.10																
Total Operating Costs	(3,003.80)			(99.00)	(246.40)	(247.50)	(254.10)	(257.20)	(254.00)	(250.80)	(242.00)	(246.40)	(235.40)	(233.20)	(217.80)	(188.10)	(31.90)
Metal Price Deck																	
Selected Exchange Rate: USD to CAD 1.28																	
Copper				5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76	5.76
Palladium				1,984.00	1,984.00	1,984.00	1,984.00	1,984.00	1,984.00	1,984.00	1,984.00	1,984.00	1,984.00	1,984.00	1,984.00	1,785.60	1,785.60
Platinum				1,314.56	1,314.56	1,314.56	1,314.56	1,314.56	1,314.56	1,314.56	1,314.56	1,314.56	1,314.56	1,314.56	1,314.56	1,314.56	1,314.56
Gold				1,792.00	1,792.00	1,792.00	1,792.00	1,792.00	1,792.00	1,792.00	1,792.00	1,792.00	1,792.00	1,792.00	1,792.00	1,792.00	1,792.00
Silver				25.60	25.60	25.60	25.60	25.60	25.60	25.60	25.60	25.60	25.60	25.60	25.60	25.60	25.60
Revenue Breakdown (CA \$million)																	
Copper Revenue	2632.42421			95.05	299.90	236.92	143.39	127.44	234.58	202.27	207.77	240.94	160.79	198.26	225.09	235.57	24.45
Palladium Revenue	3674.56379			140.88	436.06	406.08	365.11	346.79	321.63	314.77	217.20	224.80	191.93	228.01	249.76	205.98	25.56
Platinum Revenue	688.96965			21.83	67.26	77.33	86.19	80.27	59.02	53.38	34.98	42.41	37.77	38.05	45.88	40.07	4.55
Gold Revenue	264.14332			8.81	24.01	26.15	26.95	23.05	22.87	22.84	18.60	18.93	17.34	16.35	19.03	17.47	1.74
Silver Revenue	71.4256308			0.80	2.53	6.26	7.01	5.36	3.98	5.67	7.36	5.50	4.77	5.92	7.70	7.74	0.82
Gross Revenue	\$7,331.53			\$267.36	\$829.77	\$752.73	\$628.65	\$582.90	\$642.08	\$598.93	\$485.91	\$532.58	\$412.60	\$486.60	\$547.46	\$506.82	\$57.13
Operating Margin (%)	40.97%			-270.06%	29.70%	32.88%	40.42%	44.12%	39.56%	41.87%	49.80%	46.27%	57.05%	47.92%	39.78%	37.11%	55.84%
EBITDA	\$4,327.73	\$0.00	\$0.00	\$168.36	\$583.37	\$505.23	\$374.55	\$325.70	\$388.08	\$348.13	\$243.91	\$286.18	\$177.20	\$253.40	\$329.66	\$318.72	\$25.23
(-) Initial Capital	-\$800.00	(268.75)	(453.75)	(77.50)		-	-	-	-	-	-	-	-	-	-	-	-
(-) Contingency Costs	-\$93.75	(31.25)	(41.25)	(21.25)													
(-) Sustaining Capital	-\$509.75	-	(1.00)	(80.00)	(85.00)	(35.00)	(40.00)	(41.25)	(27.50)	(43.75)	(27.50)	(51.25)	(23.75)	(10.00)	(41.25)	(2.50)	-
(-) Closure Costs	(66.00)	-	-	-	-	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(55.00)
(-) Change in NWC	0	(3.00)	(15.00)	(29.00)	(50.00)	26.00	8.00	3.00	(2.00)	3.00	10.00	(3.00)	8.00	(6.00)	(5.00)	3.00	52.00
Equip Financing Drawdowns	100	43	25	32													
Equip Financing Costs	-119	-5	-9	-14	-19	-19	-22	-14	-12	-4	-1	0					
Pre Tax Cash Flow	\$2,839.23	-\$265.00	-\$495.00	-\$21.39	\$429.37	\$476.23	\$319.55	\$272.45	\$345.58	\$302.38	\$224.41	\$230.93	\$160.45	\$236.40	\$282.41	\$318.22	\$22.23
Accumulated Cash Flow (pre tax)		-\$265.00	-\$760.00	-\$781.39	-\$352.03	\$124.21	\$443.76	\$716.21	\$1,061.79	\$1,364.17	\$1,588.58	\$1,819.52	\$1,979.97	\$2,216.36	\$2,498.77	\$2,817.00	\$2,839.23
Taxes	-944	0	0	-1	-102	-118	-91	-83	-95	-87	-54	-67	-39	-59	-77	-70	-1
Operating Cash Flow	\$1,895.23	-\$265.00	-\$495.00	-\$22.39	\$327.37	\$358.23	\$228.55	\$189.45	\$250.58	\$215.38	\$170.41	\$163.93	\$121.45	\$177.40	\$205.41	\$248.22	\$21.23
Payback Period																	
Accumulated Cash Flow' (after tax)	\$1,895.23	-\$265.00	-\$760.00	-\$782.39	-\$455.03	-\$96.79	\$131.76	\$321.21	\$571.79	\$787.17	\$957.58	\$1,121.52	\$1,242.97	\$1,420.36	\$1,625.77	\$1,874.00	\$1,895.23

# Appendix I – Worst Case (Armageddon)

*Palladium Production Stops in 2030 where production stops being economic*

Generation Mining		GENMLT0															
DCF Scenario: Worst Case		Key Assumptions:					Modelled		Current Price								
Flagship Project: Marathon Palladium Deposit							Palladium Price :		\$1,964.00								
							Copper Price :		\$6.12								
							Project Life		14 Years								
Selected WACC		8%															
Payback Period																	
After Tax NPV (\$M)		\$167.72															
Project IRR		13%															
Period		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Year		2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Revenue (\$M)		0.00	0.00	238.11	738.21	868.82	648.48	608.03	673.70	632.98	488.88	483.78	213.11	260.68	288.19	292.10	30.80
% growth					67.79%	-10.89%	-21.32%	-8.16%	11.45%	-7.64%	-21.15%	9.06%	-127.00%	14.95%	13.06%	1.34%	-854.63%
EBITDA		\$0.00	\$0.00	\$148.11	\$515.21	\$441.62	\$318.46	\$274.03	\$342.70	\$304.98	\$219.93	\$259.76	-\$0.89	\$38.56	\$90.19	\$121.10	\$1.60
(-) Initial Capital		(268.75)	(453.75)	(77.50)	-	-	-	-	-	-	-	-	-	-	-	-	-
(-) Contingency Costs		(31.25)	(41.25)	(21.25)	-	-	-	-	-	-	-	-	-	-	-	-	-
(-) Sustaining Capital		-	(1.00)	(80.00)	(85.00)	(35.00)	(40.00)	(41.25)	(27.50)	(43.75)	(27.50)	(51.25)	(23.75)	(10.00)	(41.25)	(2.50)	-
(-) Closure Costs		-	-	-	-	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(55.00)
(-) Change In NWC		(3.00)	(15.00)	(29.00)	(50.00)	26.00	8.00	3.00	(2.00)	3.00	10.00	(3.00)	8.00	(6.00)	(5.00)	3.00	52.00
Equip.Financing Drawdowns		43.00	25.00	32.00	-	-	-	-	-	-	-	-	-	-	-	-	-
Equip.Financing Costs		(5.00)	(9.00)	(14.00)	(19.00)	(19.00)	(22.00)	(14.00)	(12.00)	(4.00)	(1.00)	-	-	-	-	-	-
Taxes		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FCFF		-\$265.00	-\$495.00	-\$42.64	\$259.21	\$294.62	\$172.46	\$137.78	\$205.20	\$172.23	\$146.43	\$137.51	-\$56.64	-\$37.44	-\$34.06	\$50.60	-\$2.40
Free Cash Flow growth			-48.48%	1080.82%	118.46%	12.02%	-70.84%	-25.17%	32.88%	-19.14%	-17.62%	-8.46%	342.77%	-51.30%	-8.92%	167.30%	2207.22%
WACC		8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Projection Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FV FCFF		-\$265.00	-\$495.00	-\$42.64	\$259.21	\$294.62	\$172.46	\$137.78	\$205.20	\$172.23	\$146.43	\$137.51	-\$56.64	-\$37.44	-\$34.06	\$50.60	-\$2.40
Discount Factor		0.93	0.86	0.79	0.74	0.68	0.63	0.58	0.54	0.50	0.46	0.43	0.40	0.37	0.34	0.32	0.29
PV FCFF		-\$245.37	-\$434.38	-\$33.86	\$190.62	\$200.62	\$108.88	\$80.39	\$110.88	\$86.18	\$67.82	\$58.97	-\$22.49	-\$13.77	-\$11.80	\$15.96	-\$0.70
Enterprise Value	\$167.72																
(+) Cash	28.593																
(-) Debt	48.5																
Equity Value	\$147.78																
Shares outstanding (M)	240																
Value (\$ CAD)	\$0.82 Update																

Palladium Price (\$CAD)						
Discount Rate	\$0.82	1,397.00	1470.628	1,633.92	1716.818	1801.3988
	6%	0.99	0.99	0.99	0.99	0.99
	7%	0.79	0.79	0.79	0.79	0.79
	8%	0.62	0.62	0.62	0.62	0.62
	9%	0.45	0.45	0.45	0.45	0.45
	10%	0.30	0.30	0.30	0.30	0.30
	11%	0.17	0.17	0.17	0.17	0.17

COPPER Price (\$CAD)						
Discount Rate	\$0.82	4.87	6.1284	6.70	6.9608	8.27984
	6%	0.99	0.99	0.99	0.99	0.99
	7%	0.79	0.79	0.79	0.79	0.79
	8%	0.62	0.62	0.62	0.62	0.62
	9%	0.45	0.45	0.45	0.45	0.45
	10%	0.30	0.30	0.30	0.30	0.30
	11%	0.17	0.17	0.17	0.17	0.17

# Appendix J – Supply and Demand

## Refined Product against Intensity of Use and Recycling

### Palladium in koz

	2018	2019	2020	2021	2022*
REGIONAL SUPPLY					
South Africa	2,500	2,555	2,170	2,425	2,655
South Africa (adjusted)	2,500	2,555	1,845	2,655	2,630
Adjustments			-325	230	-25
Zimbabwe	380	385	405	415	445
Russia	2,670	2,870	2,810	2,585	2,710
Canada	575	515	480	500	535
USA	460	460	470	500	530
Other	395	395	385	335	335
Refined production	6,975	7,180	6,395	6,990	7,185
Growth	-1.2%	2.9%	-10.9%	9.3%	2.8%

DEMAND					
Autocatalysts					
Gross autocatalyst demand	8,260	8,410	7,360	7,650	8,495
Non-road demand	35	35	40	40	40
Recycling	2,035	2,175	2,010	2,305	2,585
Net autocatalyst demand	6,260	6,275	5,390	5,380	5,950
Growth	0.7%	0.2%	-14.1%	-0.2%	10.6%
Jewellery					
Gross jewellery demand	215	215	200	215	225
Recycling	60	60	55	60	65
Net jewellery demand	155	155	145	155	160
Growth	0.0%	-1.3%	-5.8%	5.1%	5.2%
Industrial					
Industrial	1,845	1,730	1,620	1,635	1,525
Recycling	370	365	330	415	365
Net industrial demand	1,475	1,365	1,290	1,220	1,165
Growth	-0.3%	-7.5%	-5.4%	-5.6%	-4.3%
Total					
Gross demand	10,355	10,390	9,220	9,535	10,290
Growth	1.4%	0.3%	-11.2%	3.4%	7.9%
Recycling	2,465	2,595	2,395	2,780	3,015
Growth	4.6%	5.4%	-7.8%	16.2%	8.4%
Net demand	7,890	7,790	6,825	6,750	7,280
Growth	0.5%	-1.3%	-12.4%	-1.1%	7.8%
MARKET BALANCE	-915	-615	-435	235	-90



# Exploration Upside

## *Sally Deposit*

### Extreme high grade PGE and Cu targets

- 24.8 Mt Indicated open pit resource
  - 278 Koz Pd, 160 Koz Pt, 56 Koz Au and 93 Mlb Cu
  - Resource defined by 82 drillholes totaling 16,975 m
- Explore for source of high grade samples using 2019 and 2020

