

# SUPERIOR LAKE

RESOURCES

DEVELOPING A HIGH-GRADE ZINC PROJECT IN CANADA

**MAY 2019** 

ASX: SUP

## **Important Notices**

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#### **Mineral Resources**

The information in this Presentation that relates to the Mineral Resource estimate for the Superior Lake Zinc Project was announced on 7 March 2019. Superior Lake confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 7 March 2019 and that all material assumptions and technical parameters underpinning the Mineral Resource estimate in the announcement of 7 March 2019 continue to apply and have not materially changed.

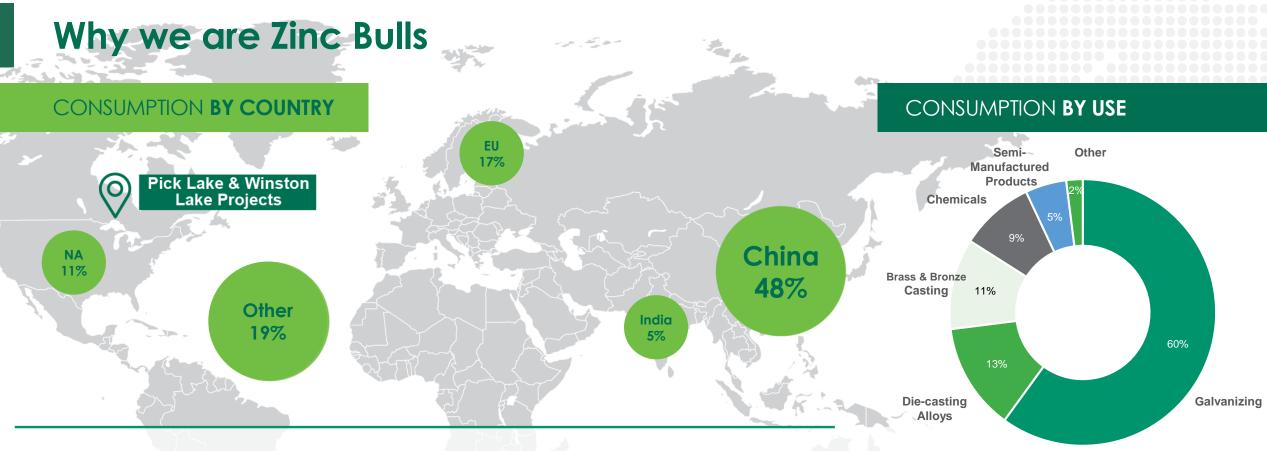
#### **Restart Study**

The information in this Presentation that relates to the Restart Study was announced on 10 October 2018. Superior Lake confirms that it is not aware of any new information or data that materially affects the information in that announcement (save for the 200,000 tonnes increase in the Mineral Resource estimate announced on 7 March 2019), and that all material assumptions and technical parameters underpinning the production targets and forecast financial information based on production targets in that announcement continue to apply and have not materially changed. The inclusion of the 200,000 tonnes will not materially affect the throughput set out in the Restart Study.

#### **Exploration Results and Metallurgical Testwork Results**

The information in this Presentation that relates to exploration results and metallurgical testwork results was announced on 30 January 2019, 20 March 2019, 28 March 2019 respectively. Matador confirms that it is not aware of any new information or data that materially affects the information included in the announcements of.





#### NORTH AMERICAN ZINC MARKET

- Forecast ~400 kt reduction concentrate in production by 2021<sup>1</sup>
- Expected closure of multiple zinc smelters across North America
- SUP is one of the most advanced zinc development asset in the North America

#### **GLOBAL ZINC MARKET**

- Stockpiles at record lows and expected to remain until 2021
- Driven 2.1% growth in Chinese consumption
- Zinc mine output in China has dragged world output down
   9.5% to 4.3 Mt.
  - Ex-China mine output grew by 2.9%



## Why does this opportunity exist?



#### FIRST WORLD JURISITICATION

Canada has a long history in the resources sector and is classified as one of the top global jurisdiction for a project globally to explore and develop mining operations



#### **CHANGE IN INVESTOR FOCUS**

North American investors have shifted away from the resources industry into new growth industries leaving many the sector (TSX/TSXV) under funded

Ontario changed the standardisation of mining claim size.

Pick Lake was pegged by an opportunistic prospector.



#### INMET

All of the above surface infrastructure
All IP on Pick Lake
Limited resource at Winston
Focus on other projects



## SUPERIOR LAKE

Consolidated project ownership for the first time in a decade

#### **PROSPECTOR**



Majority of the resource No IP on the project No site infrastructure No permits/licences



# Why do we like the Superior Lake opportunity?

Superior Lake is one of the highest grade zinc project globally which drives the exceptional low forecasted operating costs into the lowest cost quartile

JORC (2012) Resource 2.35 Mt at 17.7% Zn, 0.9% Cu<sup>1</sup>

AISC (US\$0.51 / lb) vs.

Current zinc price (\$1.25/lb)<sup>2</sup>



**Exceptional financial returns ^2** with average LOM EBITDA's A\$80m pa, post tax NPV $_{10\%}$  A\$158m & IRR 48%

lowest cost quartile (Spot Zn price – US\$1.25/lb)

**Significant exploration upside** the first exploration program in +20.yrs identifying multiple near mine targets<sup>3</sup>

**Project financing negotiations underway** significant interest from banks, private equity and offtakers



<sup>.</sup> ASX announcement 7 March 2019

<sup>2.</sup> ASX announcement 10 October 2018

ASX announcements 30 January 2019, 20 March 2019 and 28 March 2019

## Standout development project globally

### Limited high grade, high margin advanced zinc development assets

117 **ASSETS** 

63 **ASSETS** 

32 **ASSETS** 

**ASSETS** 

ASSETS

Active zinc dev. projects Grade >5% Zn 1

Sovereign risk

Top 30 jurisdiction as per the Fraser Institute (2017)

Zn Price - U\$\$2,625/t; Cu - U\$\$5,511/t; Pb - U\$\$2,204/t; Au - U\$\$1,250/oz; Aq - U\$\$18/oz ; A:U\$ - 0.70

Zn Eq grade > 10%

Peer comparison <sup>2</sup>

Zn grade > 7%

Peer comparions

Zn Resource >400kt Zn

Peer comparions

Project	Superior Lake	Florida Canyon	Prairie Creek	Su Claims	Izok Lake	Lik
Other Commodities	Cu, Au, Ag	Pb, Ag	Pb, Ag, Cu	Pb, Ag, cu	Cu, Ag, Au, Pb	Pb, Ag
Development Stage	DFS - Mid 2019	Prefeas/Scoping	Feasibility Complete	Reserves Development	Feasibility	Prefeas/Scoping
Owner	Superior Lake Resources	Nexa Resources Perú S.A.A.	NorZinc Ltd.	Teck Resources Limited	MMG Limited	Teck Resources Limited
Owner - Mkt Cap (US\$ m) <sup>3</sup>	\$17.3	\$4,638.0	\$44.5	\$17,539.2	\$27,698.9	\$17,539.2
Location	Ontario, Canada	Peru	Northwest Territories, Canada	Alaska, USA	Nunavut, Canada	Alaska, USA
Fraser Institute - Ranking	7	19	21	10	26	10
Resource (Mt)	2.35	12.10	15.75	17.00	14.60	23.45
Grade - Zn Eq % ²	20.9%	12.0%	20.6%	10.0%	21.0%	11.5%
Contained Zn Eq (kt)	491	1,452	3,242	1,700	3,060	2,703
Grade - Zn %	17.7%	10.7%	10.3%	10.0%	13.1%	8.2%
Contained Zinc (kt)	416	1,295	1,623	1,700	1,913	1,929
Initial Capex (US\$ m)4	\$75	\$213	\$278	NA	NA	\$324

## Superior Lake Zinc Project

Potential to be in the lowest cost quartile of zinc producer driven by exceptionally high grade ore<sup>1</sup>

#### One of the highest grade zinc development assets globally

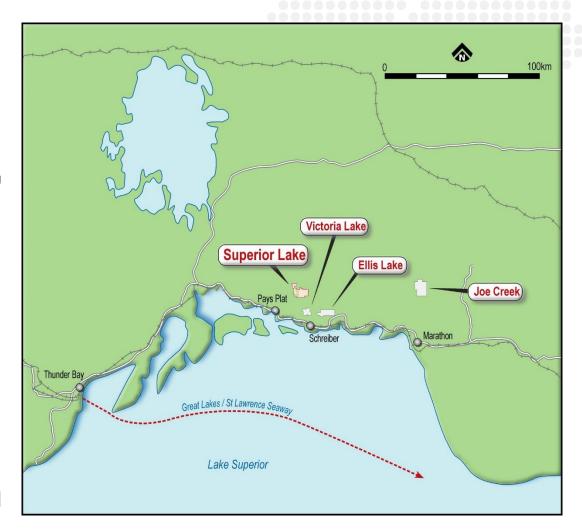
 JORC resource – 2.35 Mt at 17.7% Zn, 0.9% Cu, 0.4 g/t Au and 34 g/t Ag<sup>1</sup>

#### Restart study<sup>2</sup> outlined a low capital, high margin operation

- AISC \$0.51/lb (spot \$1.25/lb)
- Forecasted lowest cost quartile operation
- Initial Capital US\$75m
  - Leveraging the onsite & near mine infrastructure
- Production 45,000tpa contained zinc metal
- NPV 10% (post tax) A\$159m; IRR 48%

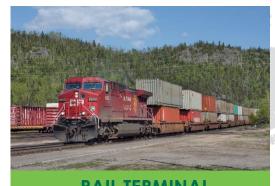
#### Permits & licensing

 Historical operation has expediated environmental and licensing compared to new development project



DFS remains on track for mid-2019

# World class supporting infrastructure



RAIL TERMINAL 30km from site

# **TRANS-CANADIAN HWY**20km from site





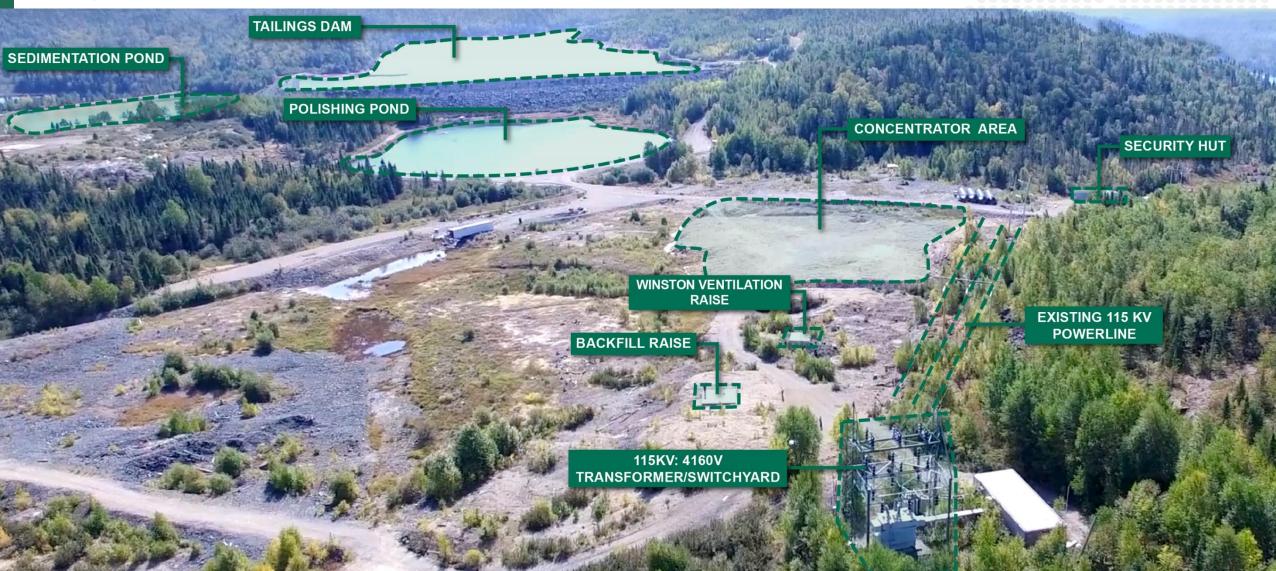


**SKILLED WORKFORCE** in proximity

# GLOBAL SMELTER NETWORK via existing rail & port



# Significant infrastructure at site





## Highly desirable zinc concentrate with global distribution potential

#### HISTORICAL OPERATION PRODUCED TWO CONCENTRATES<sup>1</sup>

ZINC – 52% to 53.5% Zn COPPER – 22% to 25% Cu GOLD and SILVER – 11g/t Au, 310g/t Ag

- No deleterious elements in either concentrates
- 3 zinc smelters in Canada all accessible via existing rail networks
- Rail terminal (Schreiber) 30km from site provides national & global access (ports)

#### **FINANCING**

- Preliminary project financing discussions underway
- Strong interest from global banks, private equity & offtakers
- Opportunity to link offtake with funding



1. ASX announcement 10 October 2018

# Significant exploration upside – untouched in 20 years<sup>1</sup>

- VMS style mineralisation typically occur in clusters
- Only two deposits discovered to date
- Limited exploration completed in +20 years; no modern exploration<sup>1</sup>

Exploration target – 2.1Mt to 5.2Mt at a grade between 13.3% to 15.4%  $\rm Zn^{2}$ 

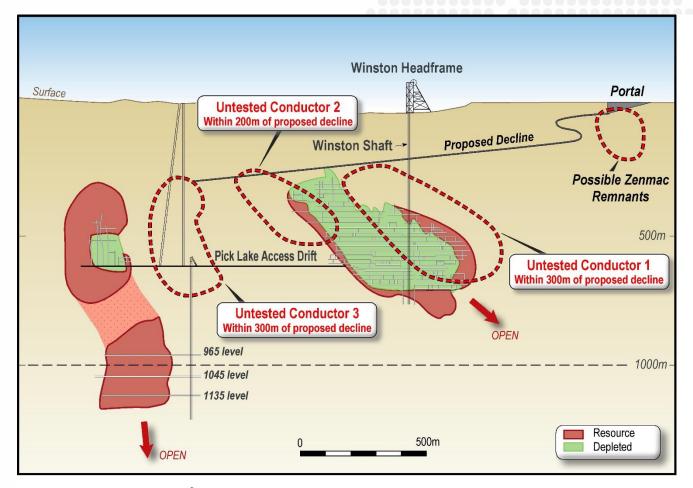
- Focus on near mine exploration targets to utilise existing infrastructure and expediating additional production
- 9km<sup>2</sup> of at total 175km<sup>2</sup> tenement

#### **Historical Production**

Upper Winston, Lower Pick , Zenmac

#### New Targets identified

- Structural and lithogeochemical program seven targets identified<sup>3</sup>
- Geophysics program (FLEM) Three major anomalies identified<sup>4</sup>





During 2018, Superior Lake commenced the first significant exploration program at the Project in over 20 years

ASX announcement 26 September 2018

<sup>3.</sup> ASX announcement 28 March 2019

# Canada's next zinc producer

One of the highest grade zinc projects globally & the most advanced zinc dev. asset in North America

Low Opex (US\$ 0.51/lb) capital (\$US75 m) driving exceptional returns<sup>1</sup>

Highly desirable, clean concentrate with existing infrastructure access to global zinc market

Significant exploration upside to grown mine life +10 years Project financing negotiation commenced with strong interest from Banks, PE and offtake parties

#### 2019 COMPLETED

- JORC resource upgrade
- 2.35Mt at 17.7% Zn, 0.9% Cu<sup>1</sup>
- Completed first exploration program in 20 years
- Three major, near mine geophysics anomalies identified<sup>2</sup>

#### 2019 TARGETS UNDERWAY

- Definitive feasibility study mid 2019
- Project financing UNDER WAY (target 3Q19)
- Offtake negotiations UNDER WAY
- Permitting process UNDER WAY



- . ASX announcement 10 October 2018
- 2. ASX announcement 7 March 2019
- ASX announcement 28 March 2019



For further information

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## SUP increases ownership to 85%

Agreement to acquire an additional 15% interest in the Superior Lake Zinc project

#### Highlights:

- Binding agreement to acquire up to an additional 15% Superior Lake Zinc Project, increasing the Company's interest to up to 85% – subject to shareholder approval
- Consideration for the acquisition of 15% will be 185,454,375 Superior Lake shares
- Selling minority group includes Executive Director Mr Grant Davey
- Consideration consists of only shares in Superior Lake, with an escrow period of 12 months
- Two minority shareholders have elected not to participate in the sale and will contribute to the project pro rata going forward

#### PRO-FORMA CAPITAL STRUCTURE

**Shares on Issue** 

856.9m

**Project Acquisition<sup>2</sup>** 

185.4m

Total Shares on Issue <sup>2</sup>

1,042.3m

Market Cap at \$0.025/share

\$26.0m

**Options on issue (Current)** 

105m

# Corporate Overview

**CURRENT CAPITAL STRUCTURE** 

**ASX TICKER** 

SHARES ON ISSUE (post roll up)

**OPTIONS** 

(Unlisted - average exercise price \$0.06/share)

MARKET CAPITALISATION

(at \$0.025)

CASH

(as at 31 March 2019)

**DEBT** 

SUP

1,042M

105M

~\$26 M

~A\$2.6 M

Nil



# Updated JORC (2012) Mineral Resource

Classification	Tonnes (Mt)	Zn (%)	Cu (%)	Au (g/t)	Ag (g/t)
Measured	-	-	-	-	-
Indicated	2.07	18.0	0.9	0.38	34
Inferred	0.28	16.2	1.0	0.31	37
Total	2.35	17.7	0.9	0.38	34



## Restart study outlines low capital, high margin operation

Potential to be a lowest cost quartile zinc producer driven by exceptionally high grade ore

AISC \$0.51 / lb vs. current zinc price US\$1.25/lb<sup>1</sup>

# Low capital cost leveraging from significant onsite and nearby infrastructure

- Initial capital cost US\$75m<sup>1</sup>
- Highly desirable and proven concentrates attracting interest from multiple potential global offtake partners
- Historical operation has expediated environmental and licensing compared to new development project
- DFS on track for completion by mid-2019

DESCRIPTION	VALUE (APPROX.) <sup>1</sup>
Mining Tonnage (LOM – Mt)	2 Mt
Plant Throughput (tpd)	1,000
Zn – head grade (%)	14.1%
Cu – head grade (%)	0.66%
Annual production (Zn Metal – tpa)	46,640
Annual production (Cu Metal – tpa)	1,740
Initial capital cost	US\$ 75M
Average EBITDA	A\$ 80M (US\$60M)
NPV at 10% - pre-tax	A\$220 M (US\$165M)
NPV at 10% - post tax	A\$159M (US\$119M)
IRR (post tax)	48% (pre tax – 56%)

## VMS System - Potential to Grow

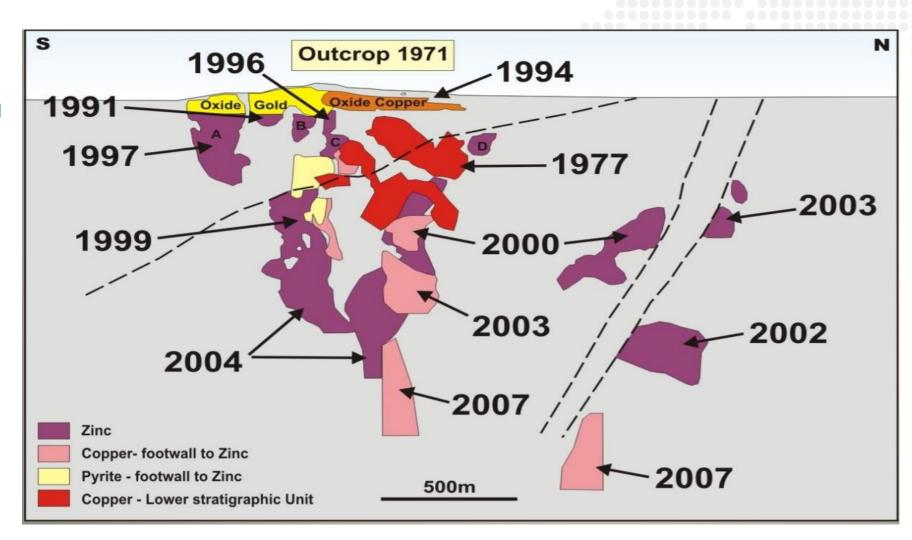
Superior Lake a VMS deposit with multiple lens potential:

- System open along strike and at depth
- Two mineralised zones
- Key mineral and alteration zones defined



Golden Grove a VMS deposit with multiple lens potential:

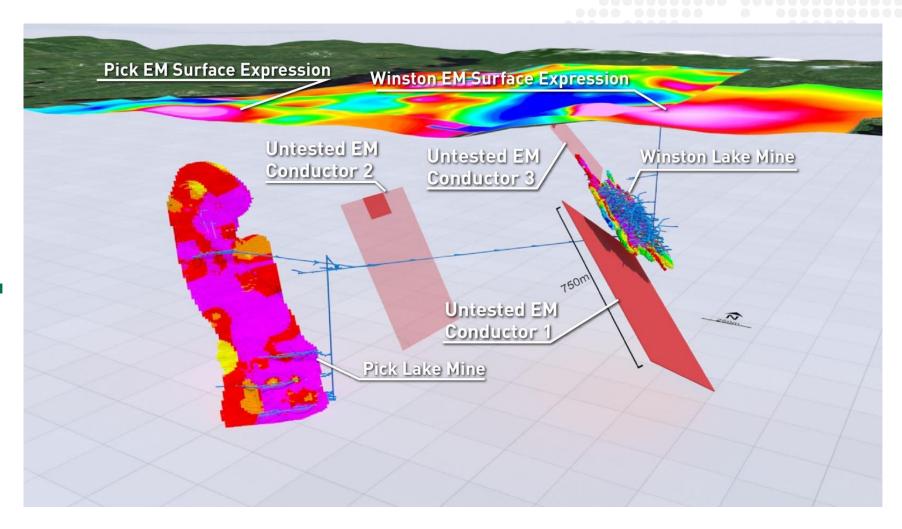
- Initially two mineralised zones
- 17 mineralised zones identified



## **Exploration - Geophysics Targets Identified**

Superior Lake a VMS deposit with multiple lens potential with the geophysics identifying<sup>1</sup>:

- The system is open along strike and at depth
- Both the Winston and Pick mineral and alteration zones defined
- All targets easily accessed via planned underground development





## **Board of Directors**

Keong Chan Non Executive Chairman	Provides advice to a number of companies on corporate matters in relation to capital raisings, IPOs, back door listings, mergers and acquisitions, takeovers/divestments and has sat on or acted as an advisor to a number of ASX listed boards.
Grant Davey Executive Director	A mining engineer with over 25 years of senior management and operational experience in the construction and operation of gold, platinum and coal mines in Africa, Australia, South America and Russia. More recently, Grant has been involved in venture capital investments in several exploration and mining projects and he has been instrumental in developing the Panda Hill niobium project as well as the Honeymoon uranium project. His focus is in securing first class mining projects in world class mining jurisdictions.
Peter Williams Non-Executive Director	A geologist, Peter was formerly Chief Geophysicist and Manager of Geoscience Technology for WMC Resources. He was one of the founding members of Independence Group Limited and developed high powered 3 component 3D TEM applications that lead to the discovery of over 75,000t of nickel at the Victor Long Nickel Mine in Kambalda. Peter has extensive experience in West Africa where he was the vendor of Gryphon Minerals' Banfora Gold Project, was involved in the project generation of Papillion's Mali projects and was a founding director of Ampella Mining Ltd. Peter was a co-founder of the International Resource Sector Intelligence company, Intierra, and was a co-founder of the first dedicated hard rock mineral seismic company in the world, HiSeis.

## Management

David Woodall – Chief Executive Officer	A mining engineer with + 30 years of international mining experience in corporate executive and senior operational leadership roles involving project evaluation, project execution, and operational leadership in a wide range of commodities and processes.	
Keith Bowes – Project Director	A process engineer with +20 years experience in metallurgy, project management and operations internationally also in projects and plants covering a wide range of commodities and processes.	
Alf Gillman – Geology Manager	A geologist with +35 years of international exploration experience in senior management and Board roles across gold, base metals, uranium and industrial mineral exploration.	
Adam Kiley – Corporate Development	COMPANIES IN POTA AUSTRALIA AND THE LINITED KINDAOM. ADDM HOLDS A RACHEIOR OF COMMERCE FROM CULTIN LINIVERSITY	

