OSISKO METALS

Pine Point: Canada's Leading Zinc-Lead Project

April 2021

TSXV: OM
OTCQX: OMZNF
FRANKFURT: 0B51

Forward-Looking Statements & Cautionary Notes Regarding Technical Information

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Reference to historical production in the vicinity of Osisko Metals properties in this Presentation does not imply that any future mineral resources or discoveries will be of economic viability, nor does it imply that additional discoveries will be made.

PRELIMINARY ECONOMIC ASSESSMENT

This PEA was prepared for Osisko by BBA Inc, WSP Canada Inc. and other industry consultants, all Qualitied Persons (“QP”) under National Instrument 43-101. The study was coordinated by the Company’s Project Manager Annie Beaulieu P.Eng. and in collaboration with the Osisko Gold Royalties Technical Services Group. The QPs have reviewed and approved the content of this press release. Independent QPs include:

Colin Hardie, P.Eng., Pierre-Luc Richard, P. Geo. (BBA)

Hugo Latulippe, P.Eng., Eric Poirier, P. Eng. (WSP)

QUALIFIED PERSON

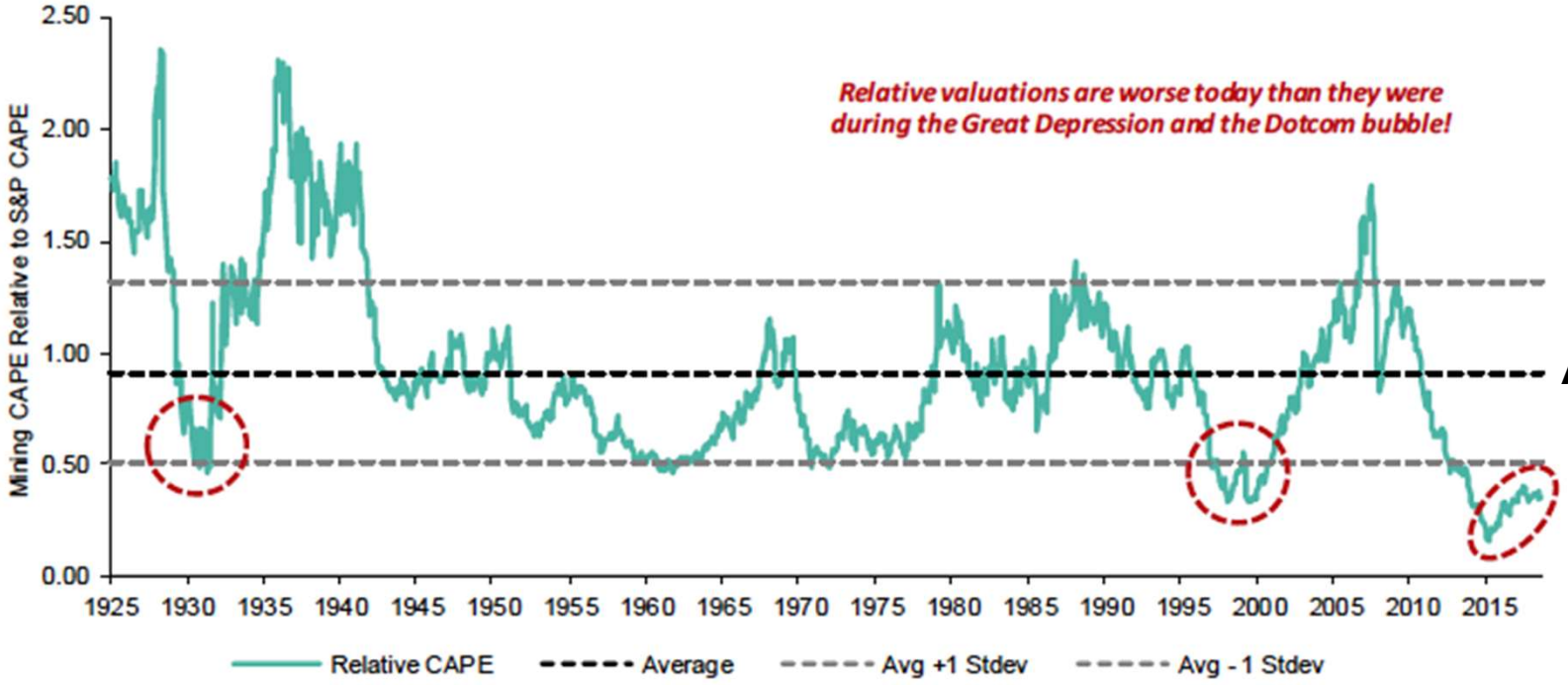
The scientific and technical information contained in this Presentation has been reviewed and approved by Robin Adair, P.Geo. VP Exploration of Osisko Metals, a “Qualified Person" within the meaning of National Instrument 43-101 – Standards for Disclosure of Mineral Projects.

Key Take-Aways

- **Decades-long divestment from resource sector has led to global base metal reserve depletion.**
- **Shift toward a green, sustainable economy and post-COVID infrastructure stimulus will dramatically increase global base metal demand.**
- **Zinc is particularly exposed to medium-term supply deficits and OM is well positioned to develop one of Canada's largest zinc-lead projects – the Pine Point project in NWT, Canada.**
- **Pine Point PEA:**
  - **NPV of C$500M and IRR of 29.6% (After-Tax)**
  - **Payback of 2.8 years, based on CAPEX of C$555M**
  - **Average annual production of 327Mlb Zn and 143Mlb Pb**
  - **Clean, high-grade concentrates by global standards**

Metal Mining Valuations At 100-year Lows

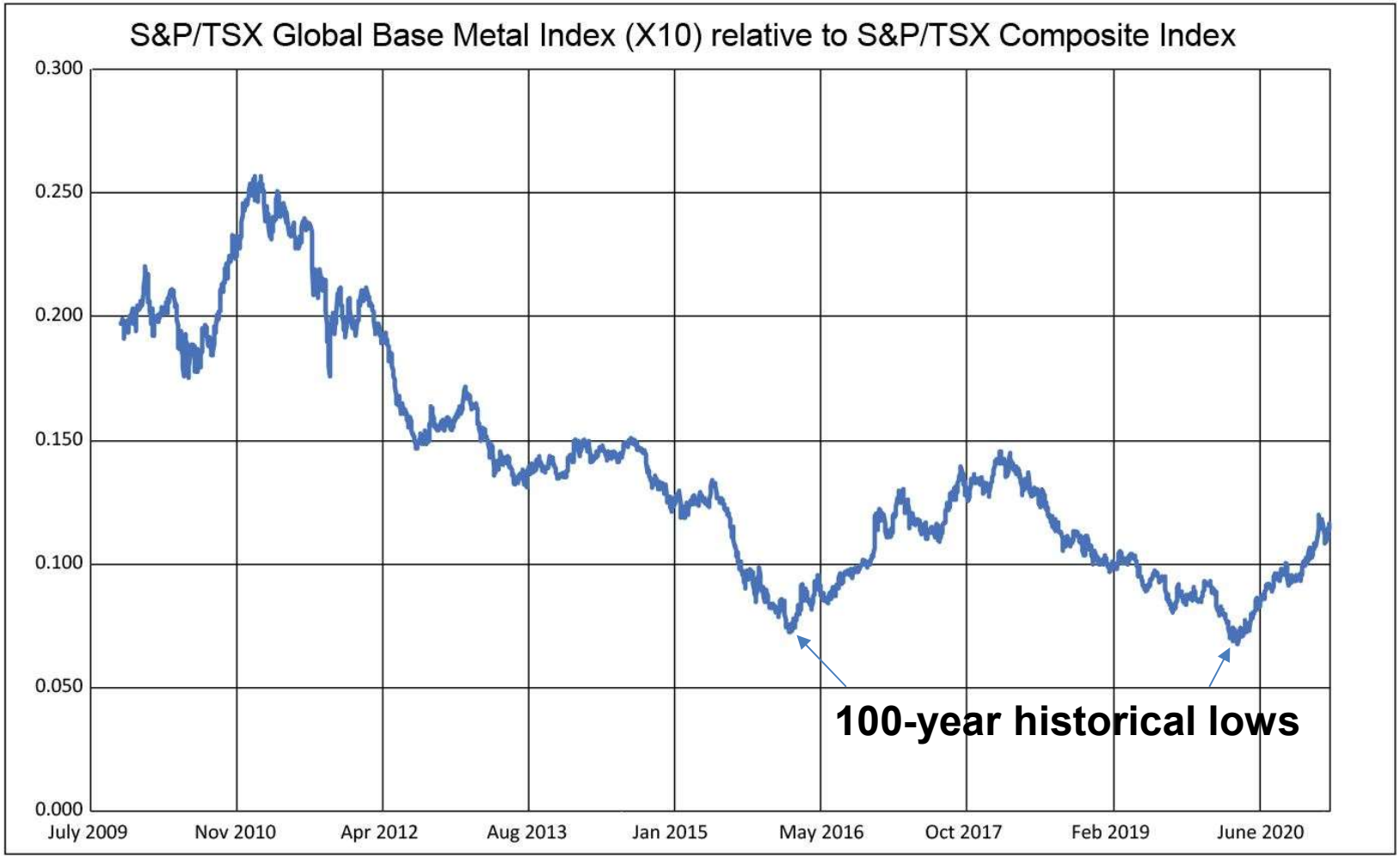
Metals Market vs S&P 500
Relative CAPE (Cyclically-Adjusted P/E ratios)



Source: Datastream, Bloomberg, CRSP, Corporate reports, Bernstein analysis & estimates

Base Metal sector remains out of favor and primed to deliver sizeable gains as it returns to the Average

Metal Mining Valuations At 100-year Lows



Historical low reached in late 2015 repeated in March 2020

….and yet demand is forecasted to rapidly grow

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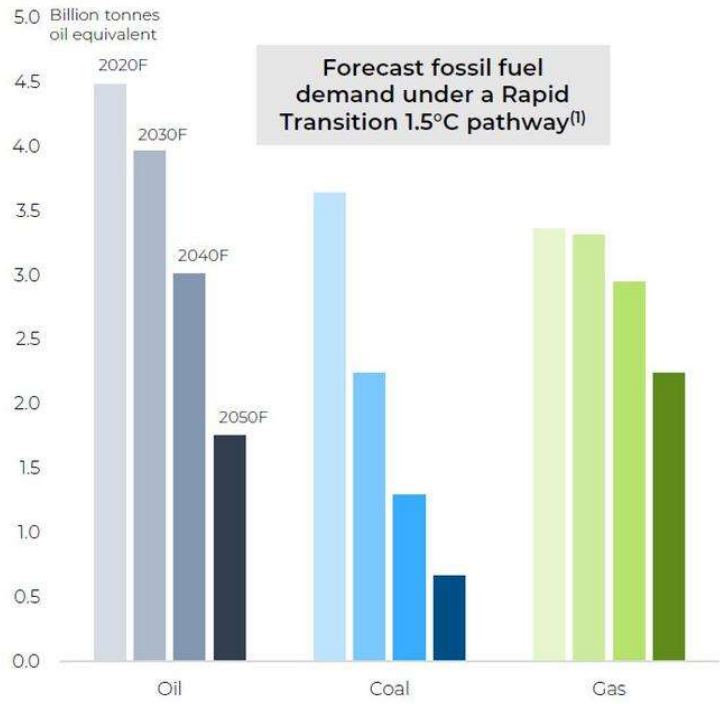
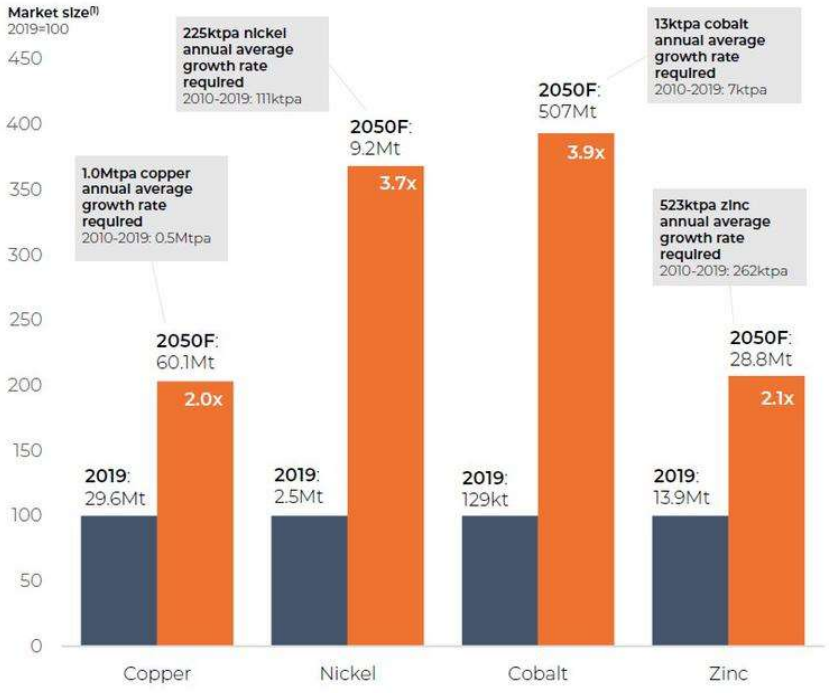
GOAL OF 2050 NET ZERO EMISSIONS WILL SHAPE OUR FUTURE

Decarbonising energy demand …



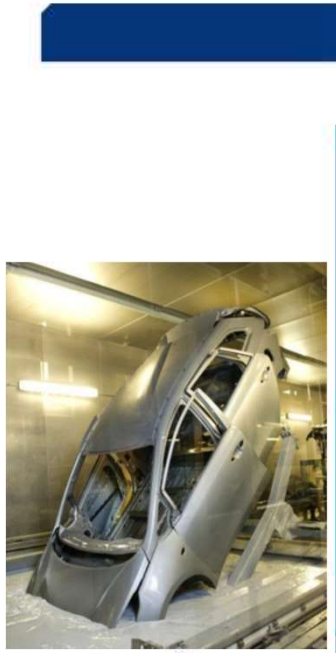
… needs significant metals supply growth …

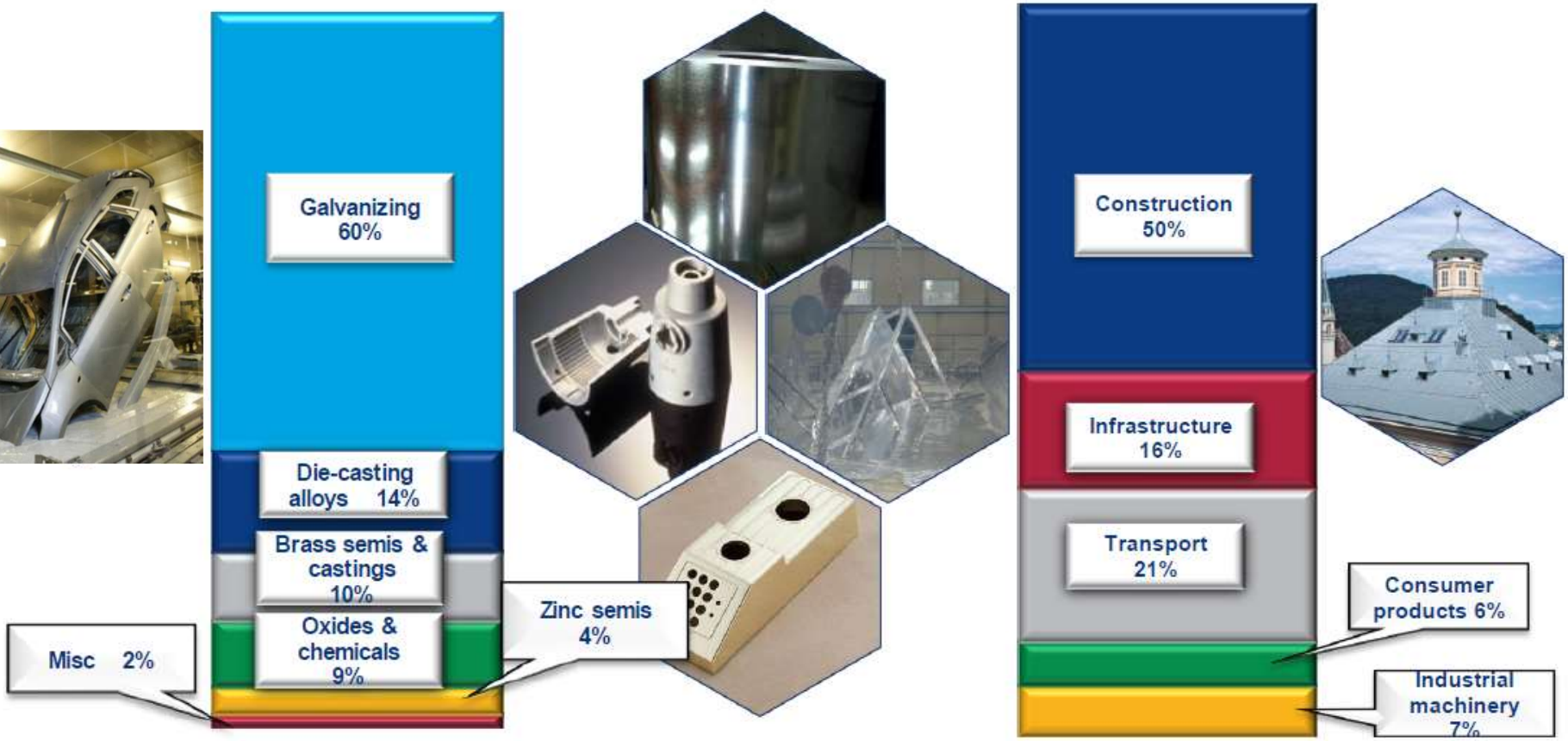
Forecast commodity demand under a Rapid Transition 1.5°C pathway



Notes:
(1) Glencore modelled estimates under a Rapid Transition (IEA SDS) scenario (+1.5°c). (2) Glencore modelled annual average change in demand from 2020 to 2050 under a Rapid Transition (IEA SDS) scenario (+1.5°c). Refer slides 43, 44 and 45 of the Investor Update 2020 – 4 December 2020. Copper demand

Construction And Infrastructure Stimulus Will Drive The Demand For Zinc





Source: Wood Mackenzie

Galvanization = Sustainability

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Looking To The Future: Zinc-Air and Zinc-Hybrid Flow Batteries for Energy Storage

Renewable Energy Sources Face Storage and Distribution Issues

Lithium Batteries too Costly for Grid Storage

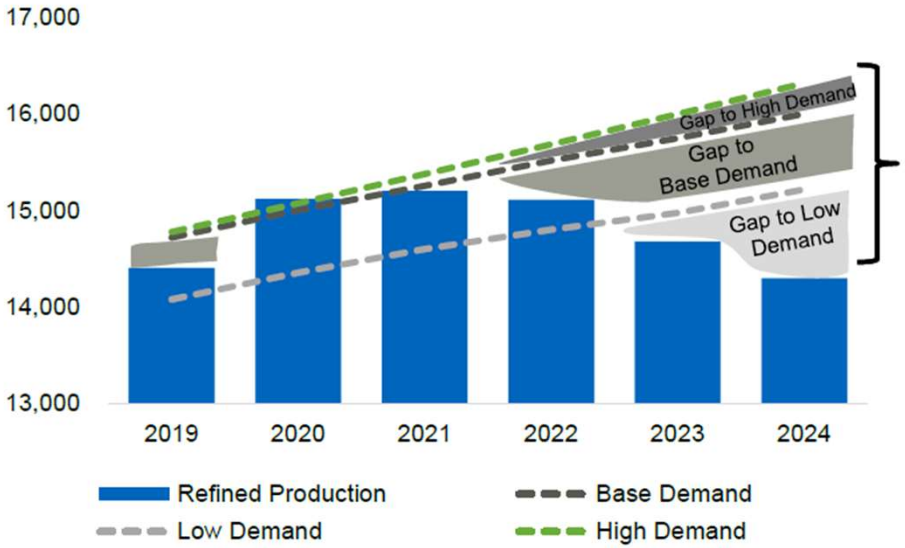
Lithium Supply Will Be Absorbed by Transportation

Zinc Battery Grid Storage is Low Cost and Efficient

Potential for Rapid Demand Growth Over Coming Years

Gap In Global Supply To Reappear

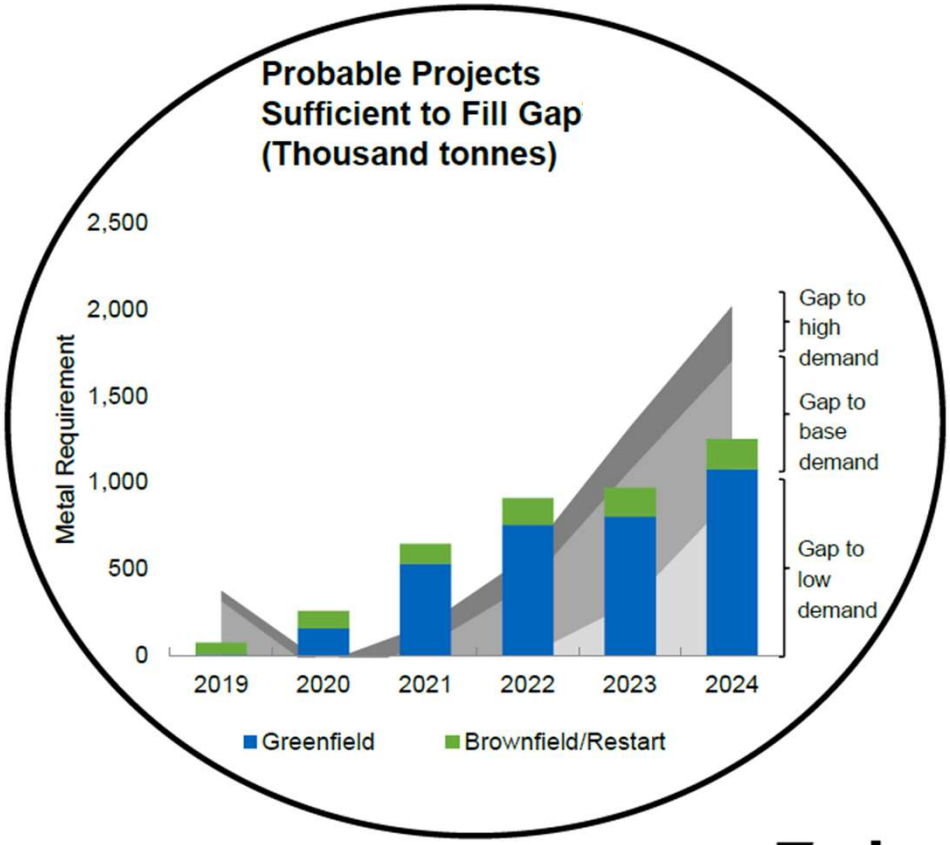
Existing and Fully Committed Supply[1]
(Thousand tonnes)



Assumed average growth to 2024:

- High Demand (2.0%): 2.0 million tonne gap
- Base Demand (1.6%): 1.7 million tonne gap
- Low Demand (1.2%): 1.0 million tonne gap

Probable Projects Sufficient to Fill Gap
(Thousand tonnes)



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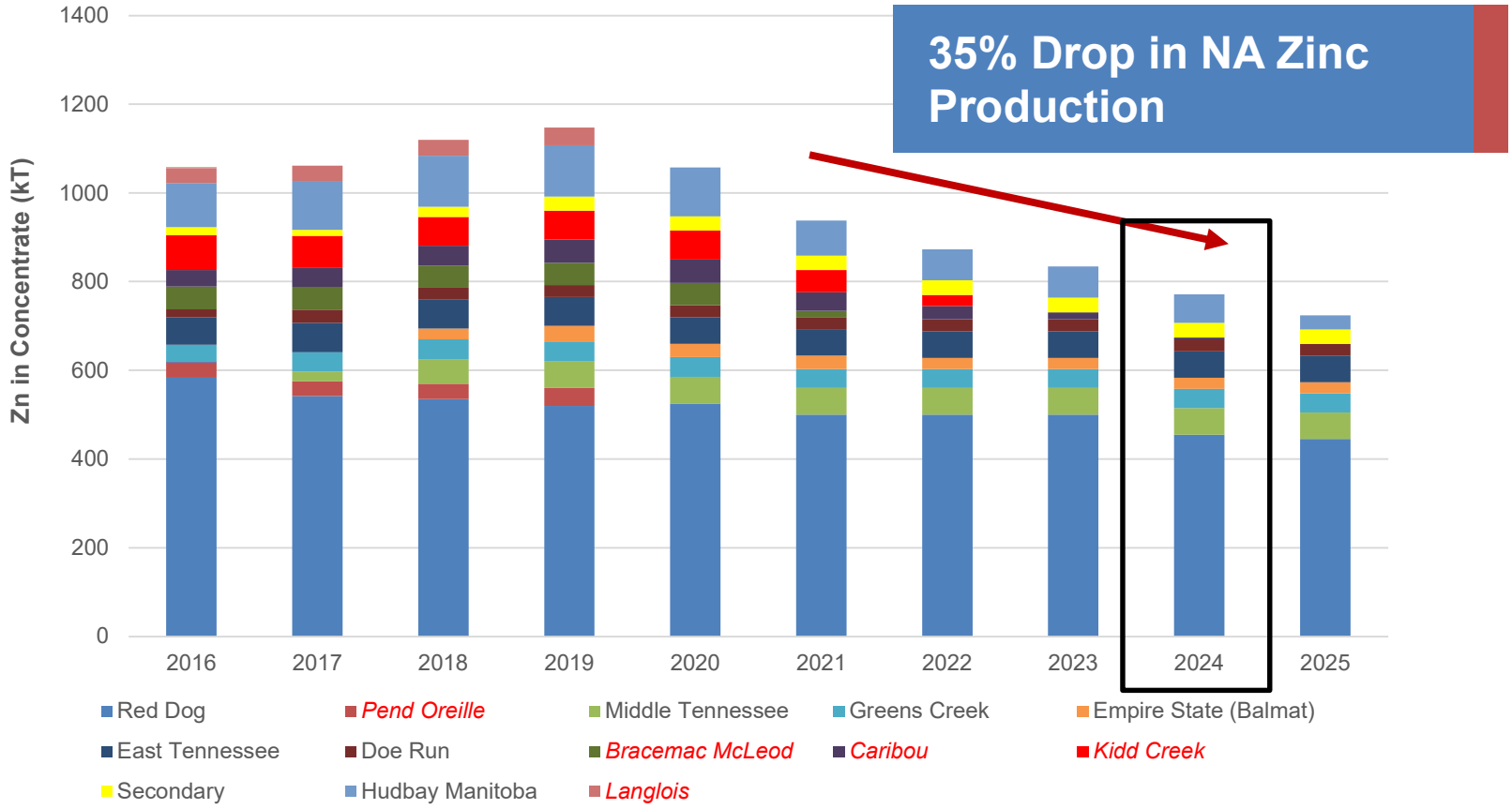
PDAC Presentation March 2020

North American Zinc Supply Deficit Is Coming



- Supply gap to re-appear within the next 2 years
- **North American mine production: 35% drop expected in 4 years.** This is similar to the global trend.

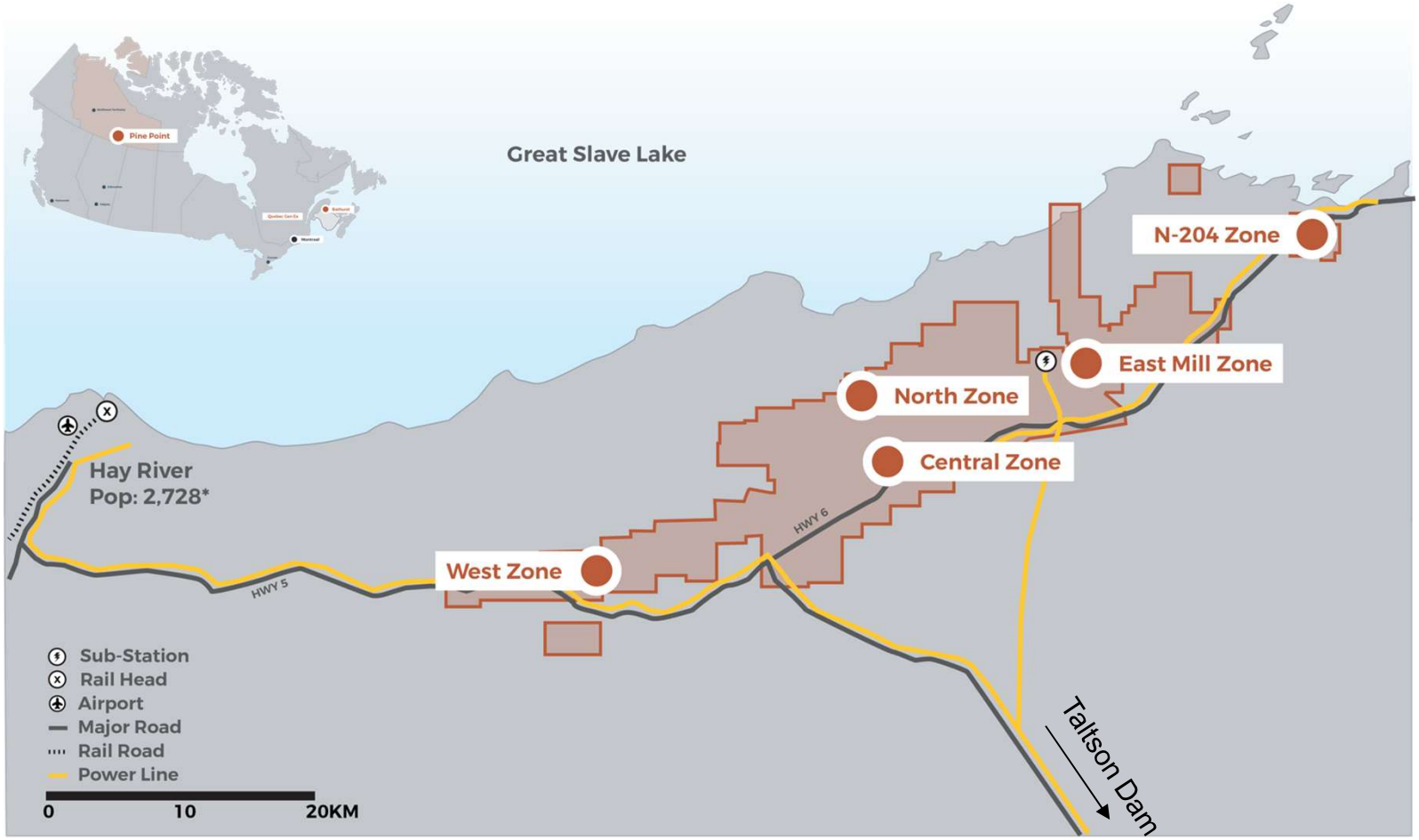
Source: CRU, Wood Mackenzie and Osisko Metals

The Pine Point Mining Camp

Cominco 1964-1988
64 Mt @ 10% Zn+Pb
OPEN PIT

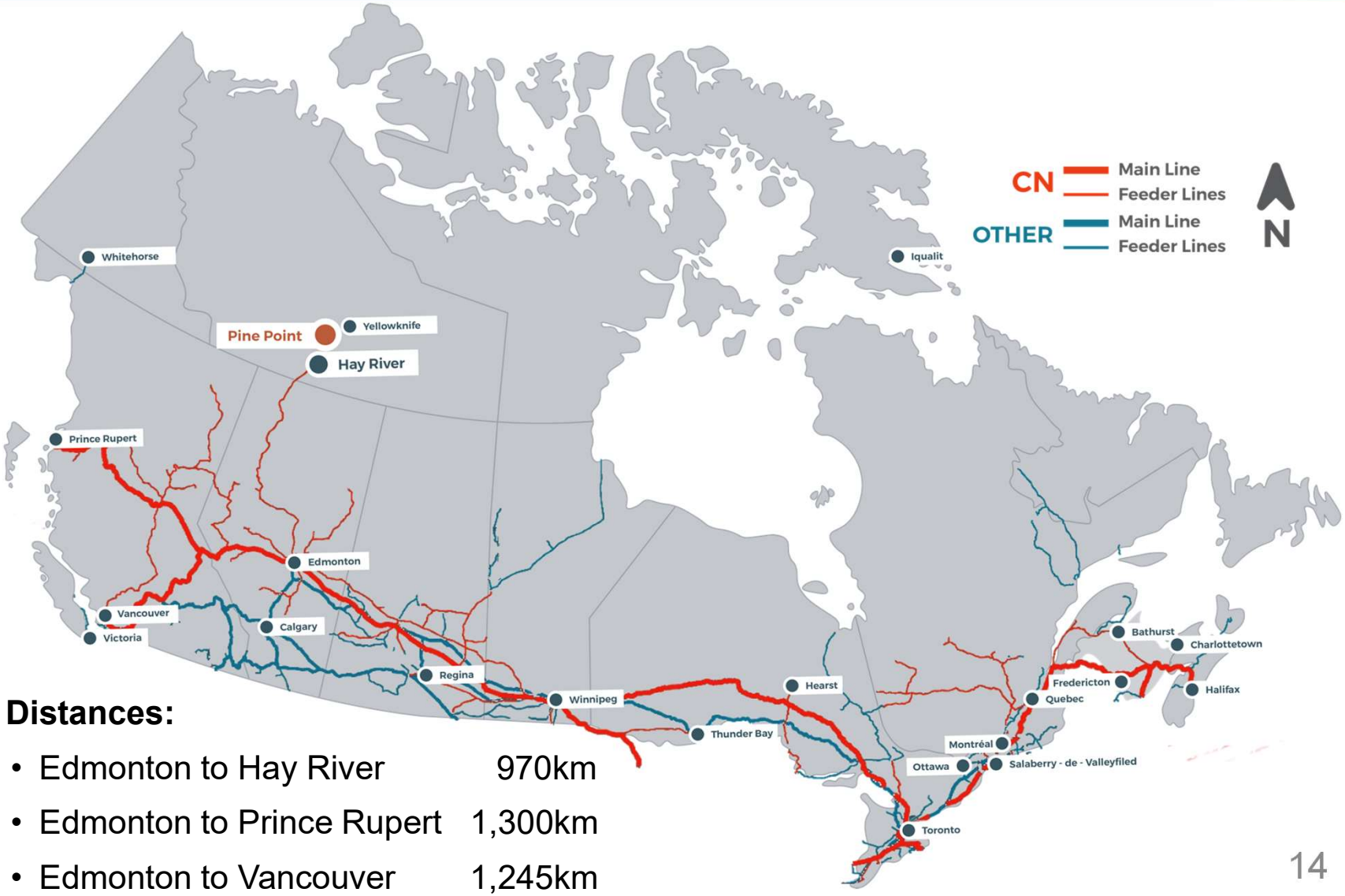
- **Osisko Metals Projects**
- **Head Office**

Support Infrastructure Already In Place



- CN Rail Head, Highway and Flights from Edmonton to Hay River
- Property within 60 km of Hay River
- Paved Highway from Hay River to Site.
- Low-Cost Hydro-Electric Power Available On Site From Taltson Dam.

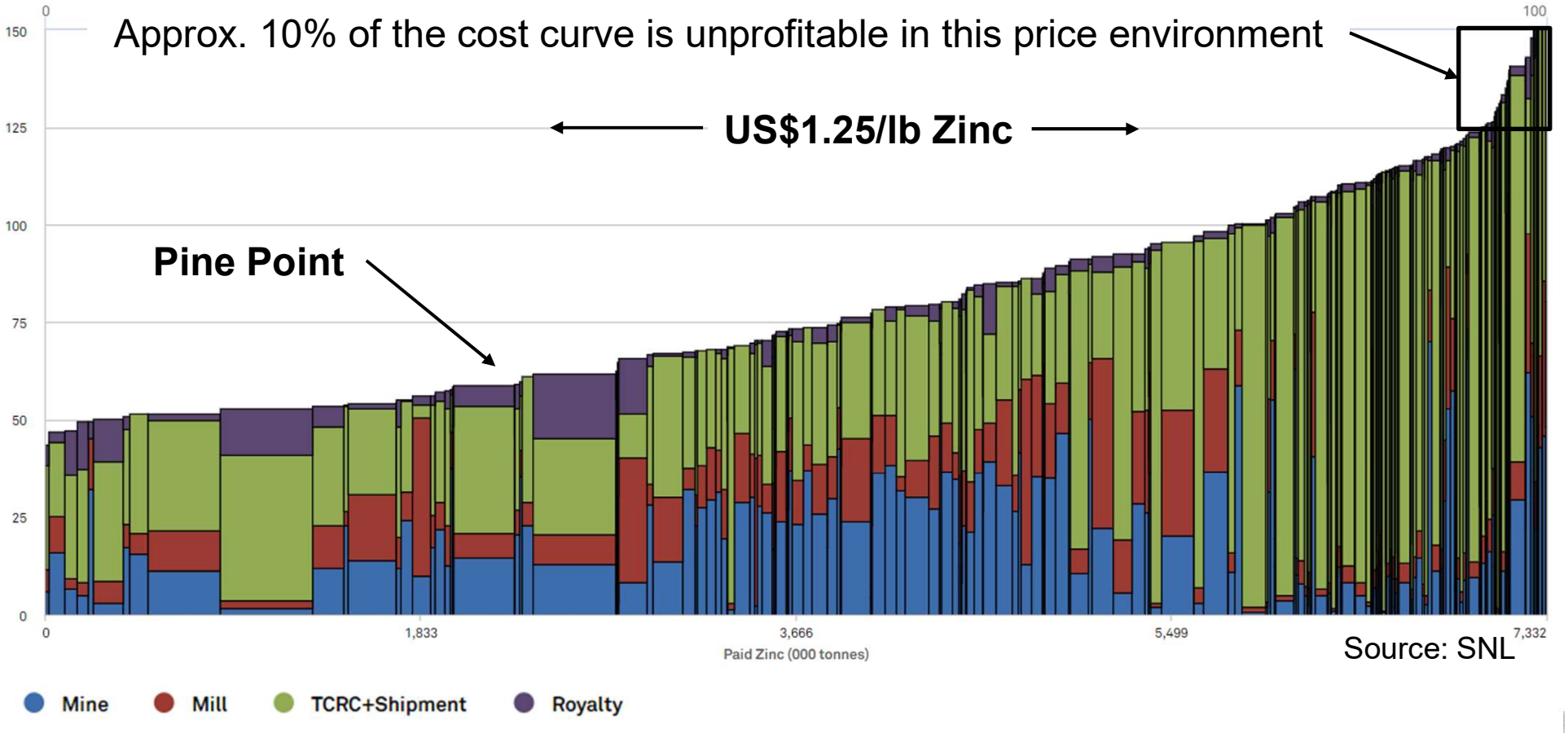
Access To International Concentrate Markets



Rail Distances:

- Edmonton to Hay River 970km
- Edmonton to Prince Rupert 1,300km
- Edmonton to Vancouver 1,245km

Global Cost Curve for Zinc Producers

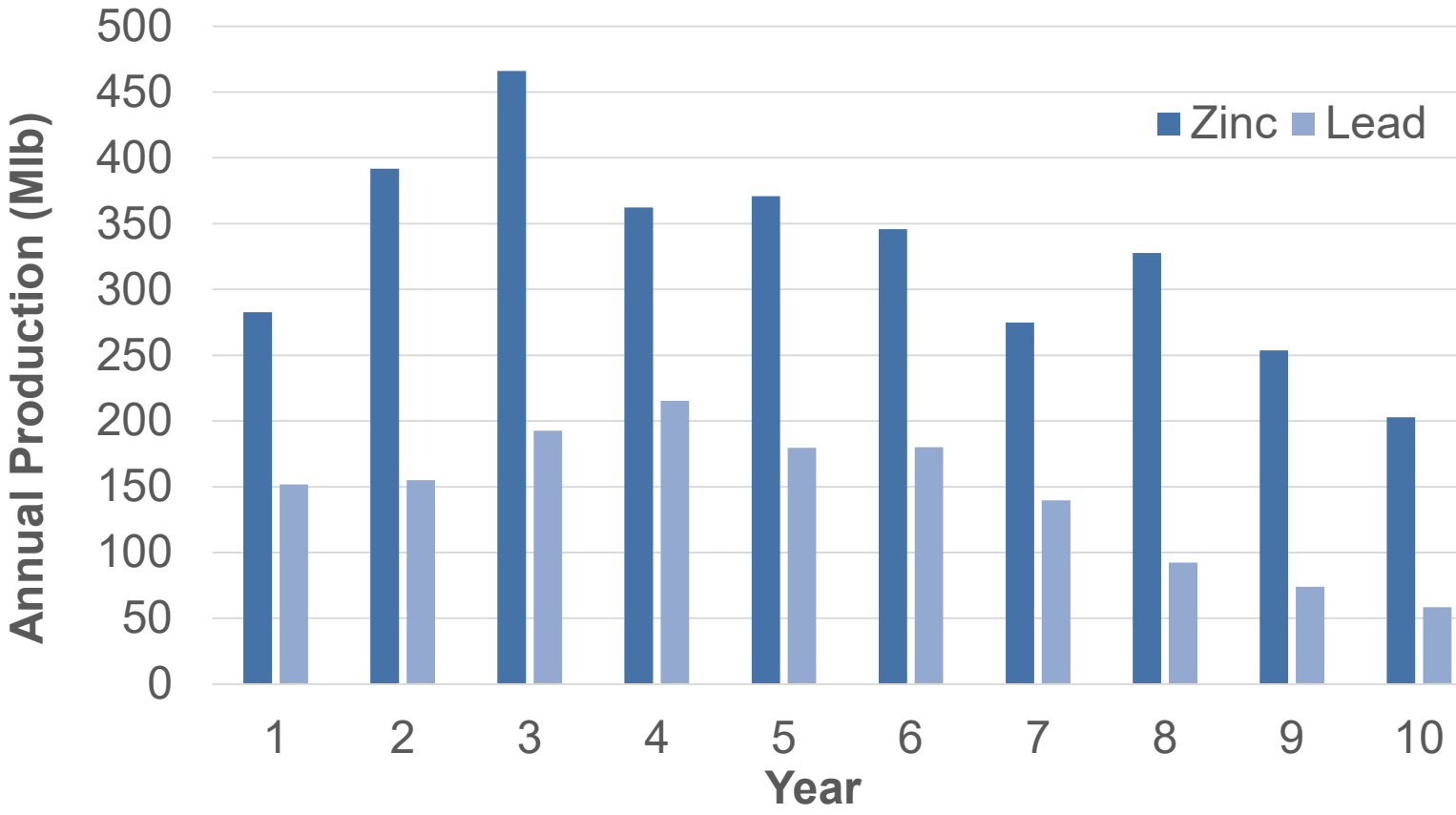


Pine Point PEA : Expected C1 cost of US$0.67/lb

Potential to be within the **second cost quartile** on a cash cost/lb basis

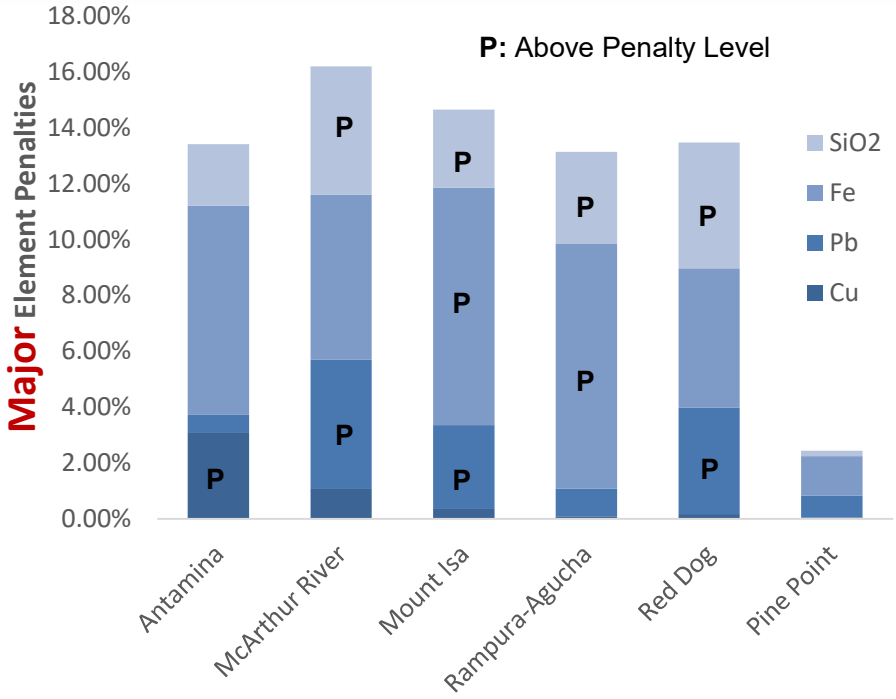
Well positioned on the cost curve relative to current producers.

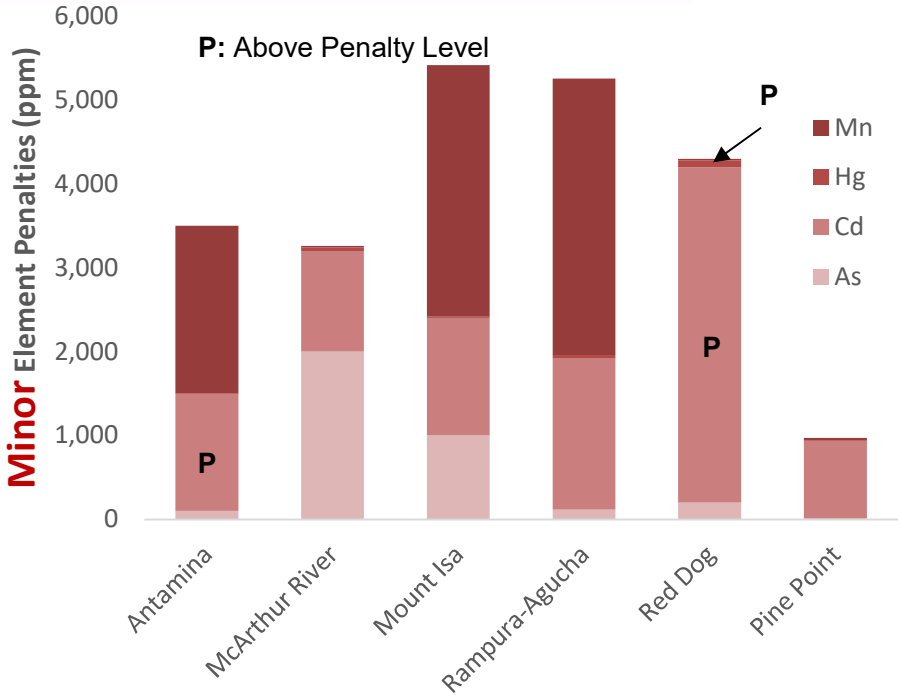
Annual Production of Metal In Concentrates: Potential To Be Top-Ten Global Producer



Sourced mainly from small, near-surface open pits with additional contributions from 8 high grade, shallow deposits mined by underground methods from the West and Central Zones.

Pine Point Potentially Among The Cleanest Concentrates Globally





Lead & Zinc Concentrates: Premium Quality, High Grade and Clean

- High recoveries for both zinc and lead (**87**% and **93**%) using XRT sorting and conventional flotation processes
- High concentrate grades: Zinc (**59%**) & Lead (**64%**). Low deleterious elemental content
- **No smelter penalties expected**

Assumptions: Major Element Penalties is Fe+Cu+Pb+SiO2; Minor Element Penalties is As + Cd + Mn + Hg
Source: Wood Mackenzie & NR dated August 7th 2019

Positive PEA Outlines Potential For Significant Zinc and Lead Production at Pine Point

- **NPV of C$500M and IRR of 29.6% (After-Tax)**
  - **Potential To Be Top-10 Global Zinc Mine On Production Basis**
  - **Potential to produce Premium High Grade Zinc Concentrate**

- **Infrastructure In Place**:
  - Hydroelectric Power Substation Located on Site
  - Rail Access Within 60km
  - Paved Road to Site and ~100km of Haul Roads on Site

- **Opportunities To Enhance PEA (updated PEA in Q1 2022):**
  - Resource expansion laterally along open pit-constrained boundaries of deposits;
  - Metallurgical testing and material sorting optimization to enhance recoveries and increase the sorted coarse material fraction;
  - Hydrogeological studies to quantify and reduce water management costs

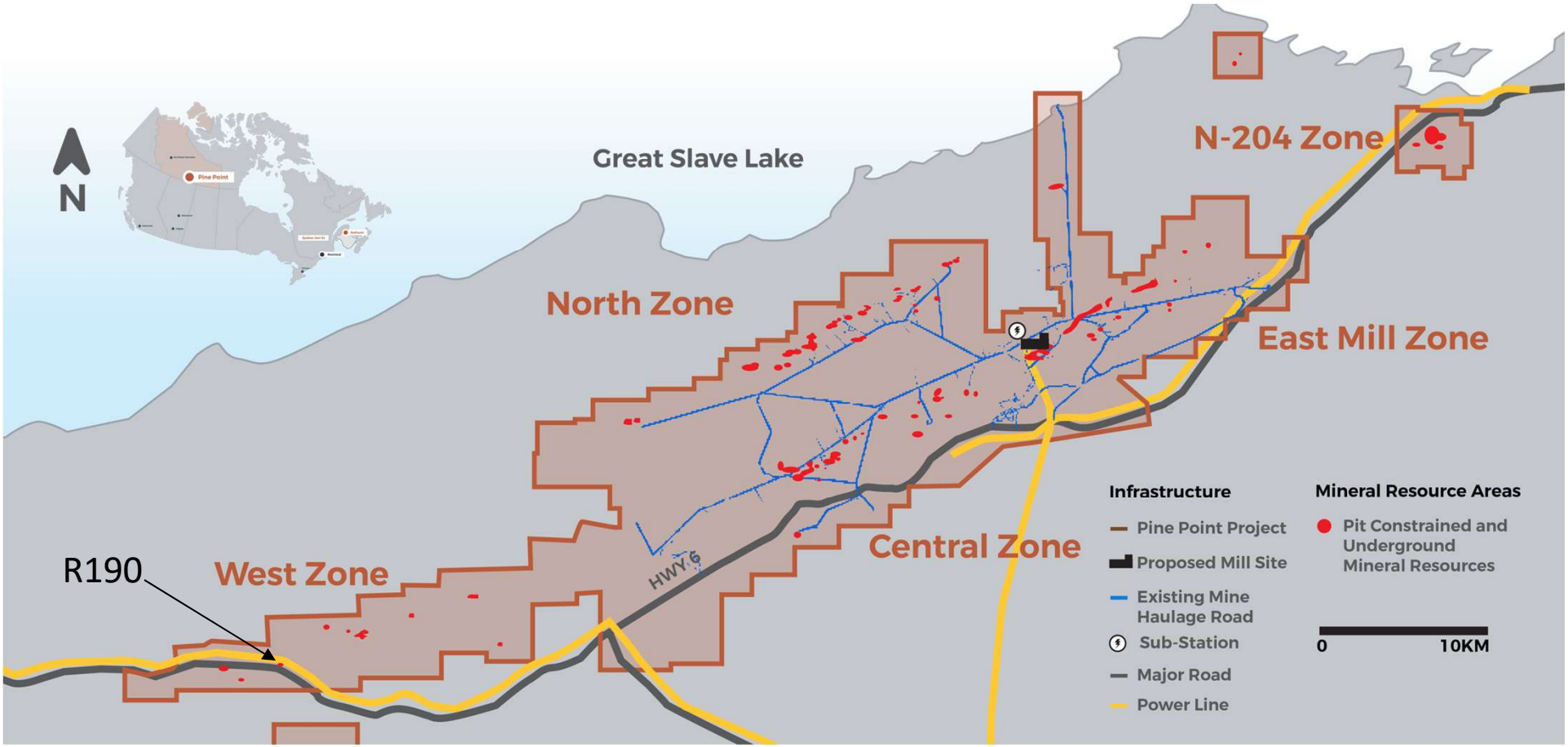
Pine Point Agreements Provide Community Support

- In 2019, Osisko Metals announced two separate **Collaboration Agreements** with indigenous communities located near the Pine Point Project:
  - Deninu K'ue First Nation
  - Northwest Territory Metis Nation
- In 2017, **Exploration Agreement** signed with K'atl'odeeche First Nation
- **Collaboration Agreements** promote a cooperative relationship related to exploration and development activities at Pine Point.
  - The Agreements support education, training, employment, business and contracting opportunities.
  - Information sharing, site visits and broad outlines of topics for future agreements, including IBA's, are also included.

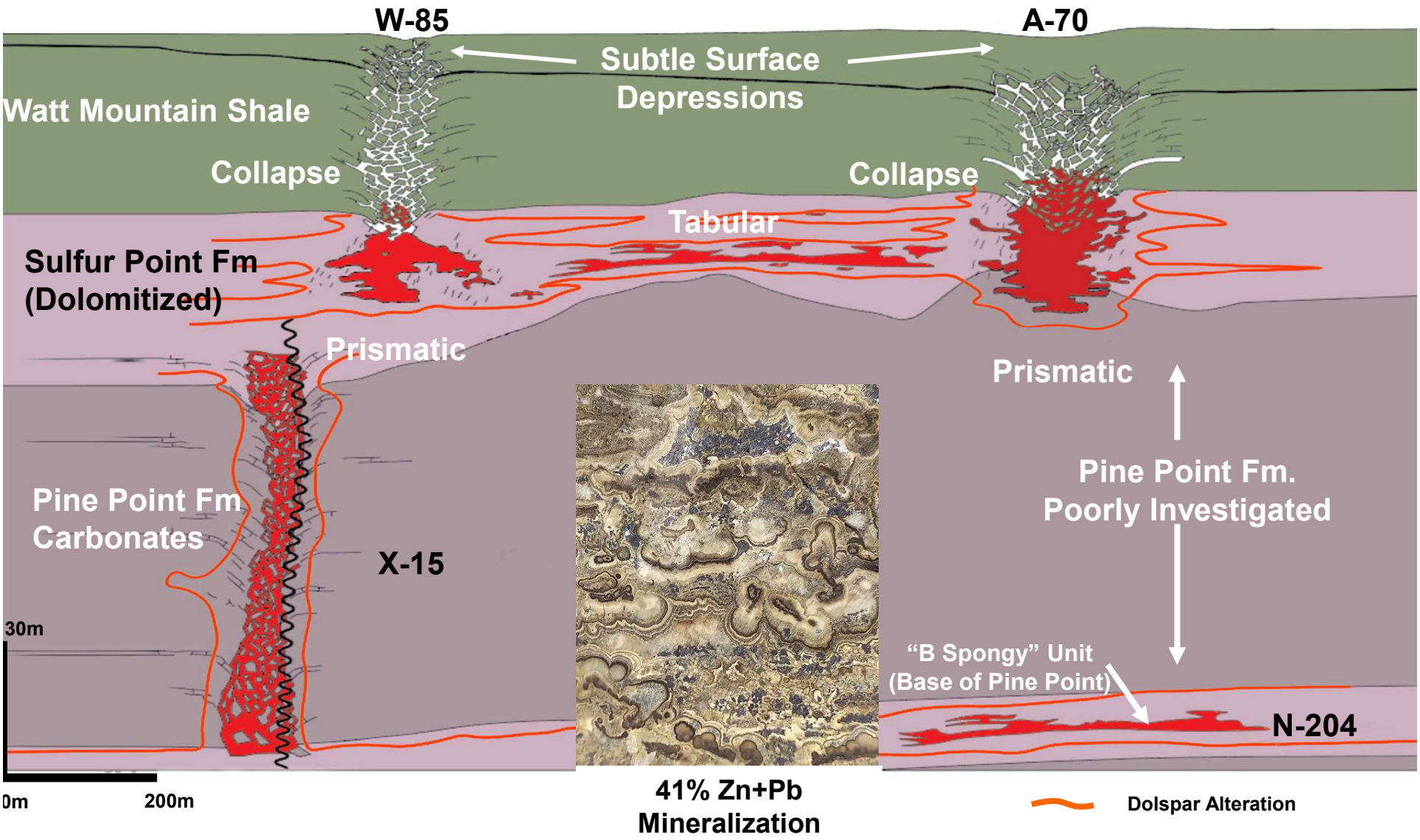
Project Boundary Location

Large Near Surface Resource Base

65 km-long Mineralized Trend



Deposit Styles at Pine Point (MVT)

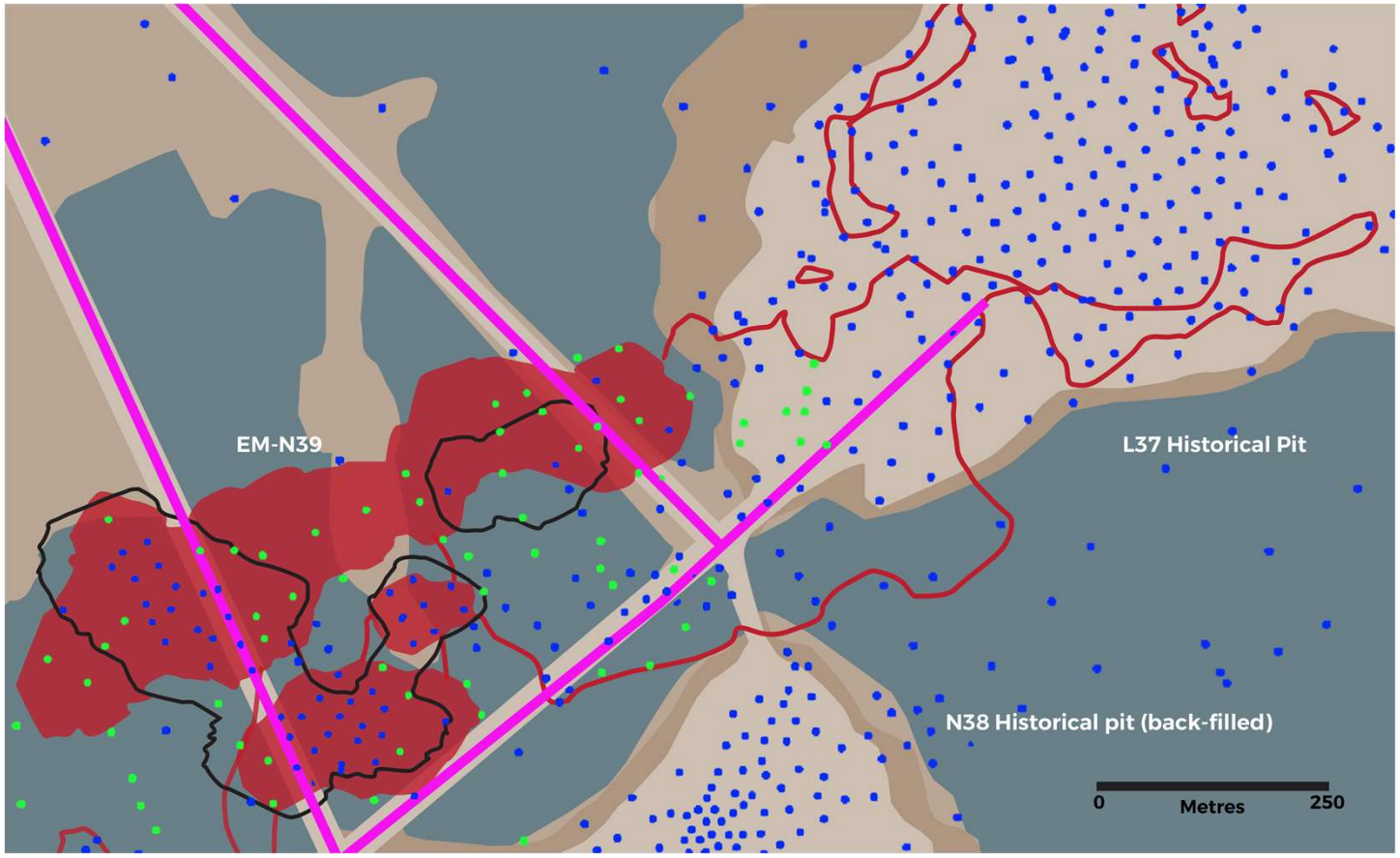


New MRE Confirms Potential for Further Resource Expansion

			Indicated				Inferred			
Method	Zone	Cut-off Grade (ZnEq %)	Tonnage (kt)	ZnEq (%)	Pb (%)	Zn (%)	Tonnage (kt)	ZnEq (%)	Pb (%)	Zn (%)
Pit Constrained Resources	Central	1.85	1,700	7.31	1.71	5.61	3,200	7.89	2.02	5.86
	East Mill	1.85	6,000	5.38	1.39	4.00	3,800	5.05	1.02	4.03
	North	1.90	5,300	6.98	2.12	4.86	10,800	5.70	1.64	4.06
	N-204	2.05	-	-	-	-	9,400	4.58	0.99	3.59
Underground Resources	Central	5.00	-	-	-	-	2,300	7.38	1.58	5.80
	West	5.00	-	-	-	-	8,200	11.04	3.78	7.25
Total Pit Constrained		**1.85 - 2.05**	**12,900**	**6.29**	**1.73**	**4.56**	**27,200**	**5.48**	**1.37**	**4.11**
Total Underground		**5.00**	-	-	-	-	**10,500**	**10.23**	**3.30**	**6.93**
Total Combined			**12,900**	**6.29**	**1.73**	**4.56**	**37,600**	**6.80**	**1.91**	**4.89**

- **MRE within a total of 47 deposits of which 11 remain open along strike. Key focus of 2021-2022 drilling campaigns.**
- Drilling in the East Mill Zone successfully pushed pit boundaries, demonstrating an opportunity to connect neighboring pit and reduce strip ratio.
- 25% of the total Resource tonnage at Pine Point is now in the Indicated category. Additional drilling will rapidly upgrade Inferred portions of the MRE.

MRE Expansion In East Mill Zone



2020 MRE

Modelled Pit Outline

2019 MRE

Modelled Pit Outline

Mineralization

Outline of > 2% Zn eq

Drill Hole Locations

2019 New Drill Holes in the 2020 MRE

Historical Drill Holes

Infrastructure

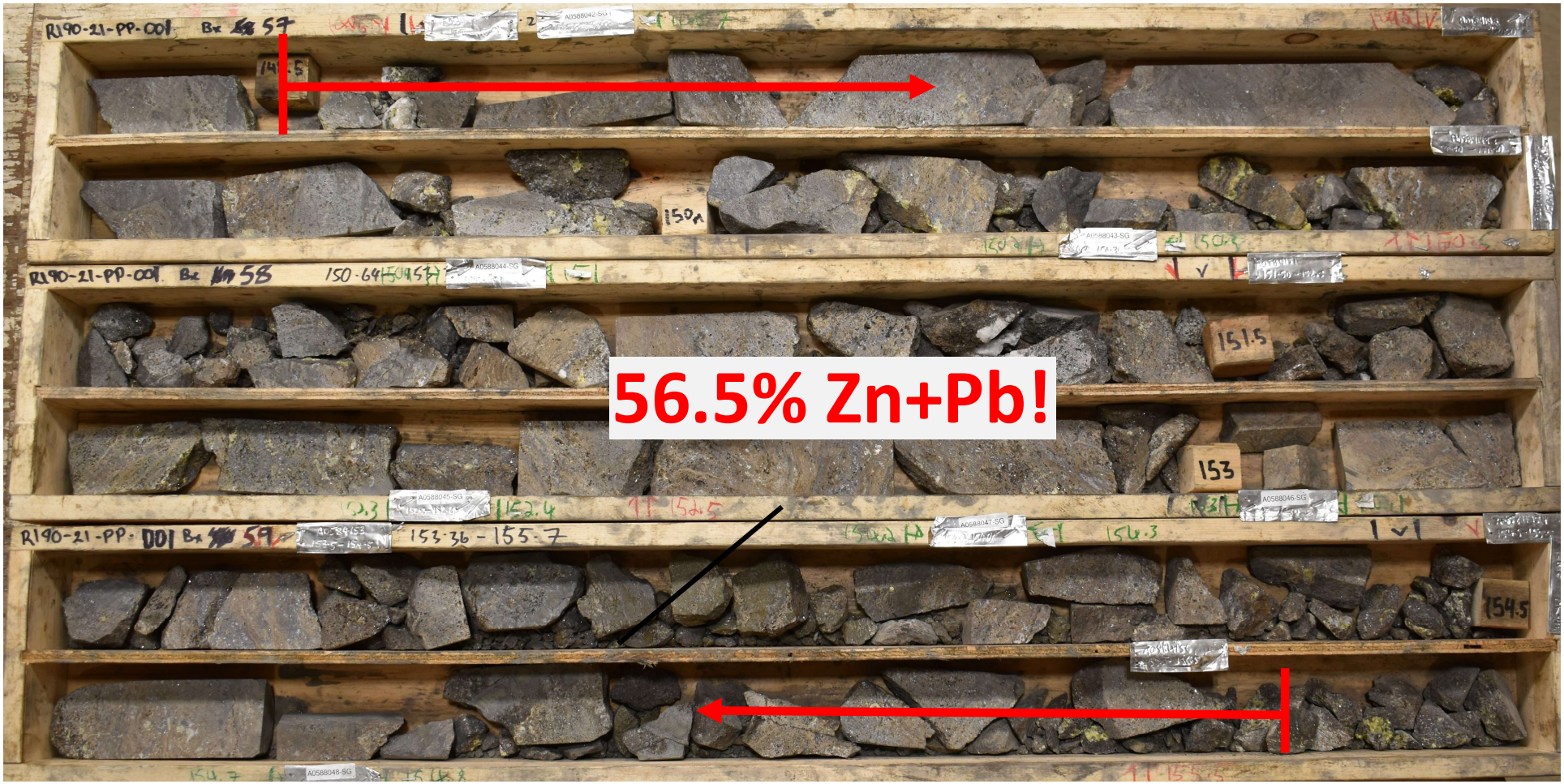
Existing Mine Haulage Roads

R190 Drilling Update:
DDH 01: 27.5m at 31.2% Zinc + 11.6% Pb

R190 Drilling Update:
27.5m at 31.2% Zinc + 11.6% Pb

High-grade center in R190-01:
148.5-155.5: 7 m @ 56.5% Zn+Pb

Potential for expansion to the North and East



Isolated Historical Drilling with no follow-up exploration

Hole Name	Trend	Width Metres	Lead	Zinc	Lead + Zinc	Grade * Metres
		(m)	%	%	%	
1362	Main	4.88	2.49	10.75	13.24	64.6
1883	North	5.27	5.03	16.24	21.27	112.1
2952	North	7.62	2.28	4.42	6.7	51.1
3053	Main	17.07	3.73	6.88	10.62	181.3
3280	North	4.27	2.23	5.75	7.98	34.1
5322	Main	4.57	7.83	5.63	13.47	61.6
6818	North	11.28	1.61	5.13	6.74	76.0
YR81-48-4	South	3.05	0.70	10.30	11.00	33.6
YR77-04-01	Main	12.19	0.44	4.2	4.63	56.5
YR86-02-02	N204	4.88	2.38	8.73	11.11	54.13
2967A	Main	11.13	0.31	4.81	5.12	56.98
L-36-632	Main	7.47	0.69	5.18	5.87	43.86

Wrap-up

- **Base metal markets are at relative 100-year lows.**
- **Shift toward a green, sustainable economy and post-COVID infrastructure stimulus will dramatically increase global base metal demand.**
- **Zinc production deficit looming as mines close and only handful of zinc development projects are in the global pipeline.**
- **Pine Point has potential to become one of Canada's largest zinc-lead mines that would produce a premium zinc concentrate.**
- **Pine Point PEA : NPV of C$500M and IRR of 29.6% (after-tax).**
- **2021 focus is on resource expansion, brownfield exploration and infill drilling, water management de-risking and environmental assessment.**

Contacts

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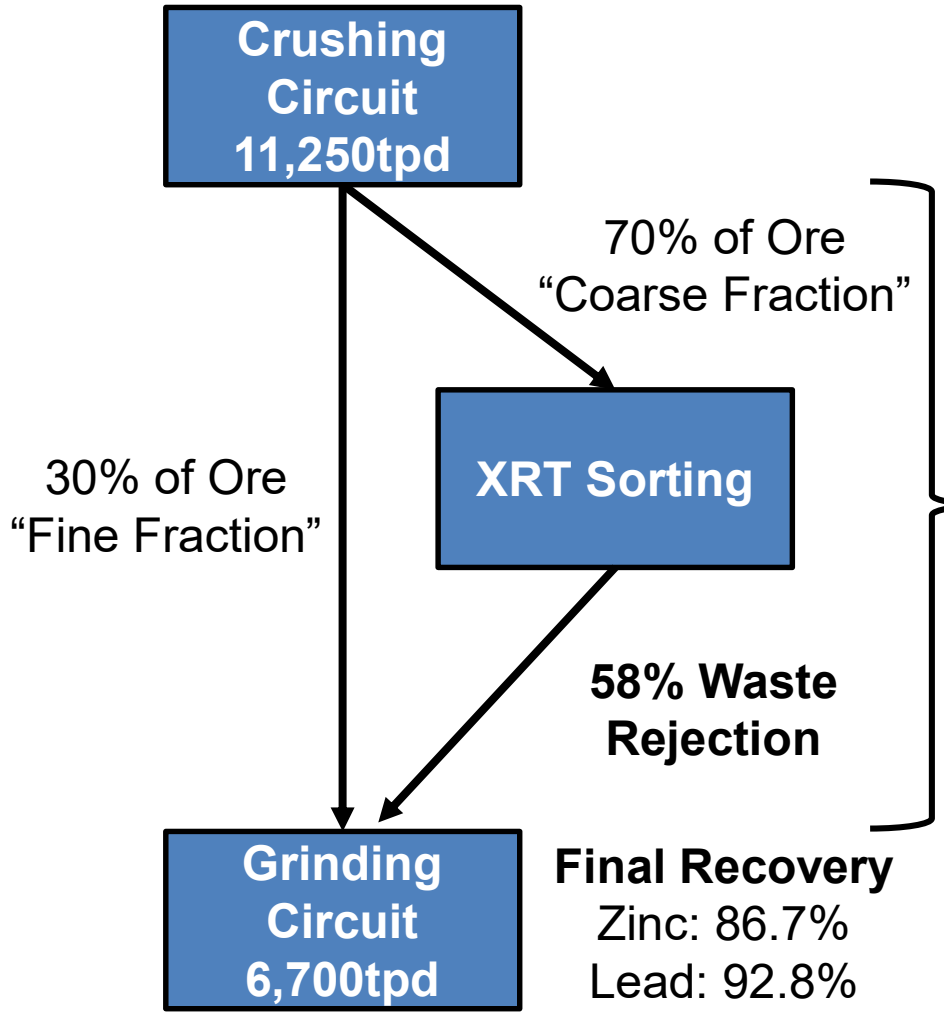
info@osiskometals.com

Appendix - PEA Financial Overview

Internal Rate of Return ("IRR") After Taxes	**29.6%**
After-tax Net Present Value ("NPV") (Discount Rate 8%)	**$500M**
After-Tax Payback Period (Years)	**2.8**
Pre-Production CAPEX (including $71.2M Contingency)	**$555M**
Average Annual LOM Production Zinc	**327Mlb**
Average Annual LOM Production Lead	**143Mlb**
Life of Mine ("LOM")	**10 Years**
Total Mineralized Material Mined	**39.1Mt**
Average Diluted (12%) ZnEq Grade	**6.17%**
Gross NSR Revenue After Royalty (LOM)	**$4,371M**
After-tax Operating Cash Flow (LOM)	**$1,064M**
C1 Costs over LOM (ZnEq)	**US$0.67/lb**
Estimated All-In Costs (Total CAPEX plus OPEX, ZnEq)	**US$0.82/lb**
LOM Zinc Price	**US$1.15/lb**
LOM Lead Price	**US$0.95/lb**
FX Rate (CAD:USD)	**1.31**

Appendix - PEA Mill Design Overview



Appendix – Share Structure and BOD

Significant Shareholders

Osisko Group. 22.3%
Renvest & CDPQ 6.1%
Management & Insiders 19.3%
Total **47.7%**

As at February 1, 2021

Closing price $0.41
52 week low/high . . . . . .$0.24-$0.52
Market Cap $72.3M
Approximate cash position . . . $7M

Shares Outstanding
178,798,993

Options
14,242,566

Warrants
9,315,125

Fully Diluted
202,356,684

Board of Directors

Independents:

Amy Satov, LLB, Director

Cathy Singer, LLB, Director

John Burzynski, P. Geo, Director

Don Siemens, CPA, Director

Luc Lessard, P. Eng, Director

Non-independents:

Robert Wares, Chairman & CEO

Jeff Hussey, P.Geo, President & COO