







### **MAJOR NEW DISCOVERY**

**Corporate Presentation – October 1, 2020** 

Palladiumoneinc.com

TSX-V: PDM FRA: 7N11 OTC: NKORF

This presentation contains certain forward-looking statements that may involve a number of risks and uncertainties. Actual events or results could differ materially from Palladium One Mining Inc's (the "Company") expectations and projections. The TSXV has neither approved nor disapproved the information contained in this presentation. Except for statements of historical fact relating to the Company, certain information contained herein constitutes "forward-looking statements". Forward-looking statements are frequently characterized by words such as "plan", "expect", "project", "could", "intend", "believe", "anticipate" and other similar words, or statements that certain events or conditions "may" or "will" occur. Forward-looking statements are based on the opinions and estimates of management at the date the statements are made and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements. These factors include the inherent risks involved in the exploration and development of mineral properties, the uncertainties involved in interpreting drilling results and other geological data, fluctuating metal prices, the possibility of project cost overruns or unanticipated costs and expenses, uncertainties relating to the availability and costs of financing needed in the future and other factors. Circumstances or management's estimates or opinions could change. The reader is cautioned not to place undue reliance on forward-looking statements.

Data and technical information in this document is extracted from the NI 43-101 technical report entitled 'Technical Report for the Kaukua Deposit, Läntinen Koillismaa Project, Finland " prepared for Palladium One Mining Inc.', written by Mining Plus, dated September 2019 and historical data and technical information is extracted from the September 19, 2013 NI43-101 technical report prepared for Finore Mining Inc for the Läntinen Koillismaa Project, Finland , also written by Mining Plus. Historical resources have not been verified by the Company and are not current, therefore reliance should not be placed on such historical information.

*Mr.* Neil Pettigrew, P.Geo, is the Qualified Person as defined by National Instrument 43-101, is the Vice President of Exploration and a director of the Company and has reviewed and approved the technical information in this document.

### **An Exploration & Development Company**



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(all prices in C\$ unless noted)		
Market capitalization	\$18.9M	
<b>Cash</b> (June 30, 2020)	\$3.1M	
ITM warrants	\$5.5M	
Share price	\$0.15	
Shares outstanding	126.1M	
Stock options	3.8M @ avg. \$0.10 4.9M @ \$0.15	
Warrants (1, 2, 3, 4, 5)	67.6M @ avg. \$0.12	

Overview as at September 30, 2020

### Major Stakeholders

Eric Sprott		21.3M shares			
(1)	32.9 million warrants have a common share until Decemb				
(2)	per common share and expir 12.7 million have an exercise share and expire May 9, 202.	price of \$0.12 per common			

(3) 5.6 million have an exercise price of \$0.13 per common share until May 20, 2021, thereafter \$0.22 per commons share.

- (4) 16.4 million have an exercise price of \$0.15 per common share and expire on December 2, 2020.
- (5) All warrants subject to acceleration of expiry based on 10day VWAP achieving \$0.20 per share



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### **Management & Directors**

<b>Derrick Weyrauch, CPA CA</b> President & CEO, Director	<ul> <li>30+ years of international capital markets experience (Canadian and US listed issuers)</li> <li>Founder and director of Magna Mining Corp, and former CFO of Andina Minerals Ltd (ADM:TSXV) prior to its sales to Hochchilds Plc (HOC: LON) and Jaguar Mining Inc. (TSXV; JAG)</li> <li>Non-executive director at Cabral Gold Inc.(TSXV: CBR)</li> </ul>
<b>Dr. Peter C. Lightfoot</b> Director	<ul> <li>30 years of industry experience, globally recognized expert on magmatic precious metal and nickel-cobalt-copper ore deposits.</li> <li>Former Principle Geologist – Nickel Sulphide Global Project Generation and Chief Geologist – Base Metals at Inco/Vale, was responsible for Voisey's Bay, Sudbury and Carajas.</li> <li>Currently a consultant to the global mining industry with emphasis on nickel and precious metals</li> </ul>
Lawrence Roulston	<ul> <li>40 years experience in the mining industry</li> <li>Investment management/analyst experience and former newsletter editor</li> <li>Started with a unit of Teck, then worked as an executive with mid-sized and junior mining sector companies</li> </ul>
<b>Neil Pettigrew,</b> <b>M.Sc., P.Geo</b> Vice President Exploration, Director	<ul> <li>Over 20 years of experience in the mineral exploration industry</li> <li>B.Sc. (hons.) from the University of New Brunswick (1999) and M.Sc. from the University of Ottawa (2004)</li> <li>Expertise in Ni-Cu-PGE, gold, VMS, and geochemistry and structural geology</li> <li>Founding partner of Fladgate Exploration Consulting Corporation and previously Senior Precambrian Geoscientist with the Ontario Geological Survey.</li> </ul>

### The Opportunity – 100% Owned PGE-Cu-Ni District, Finland

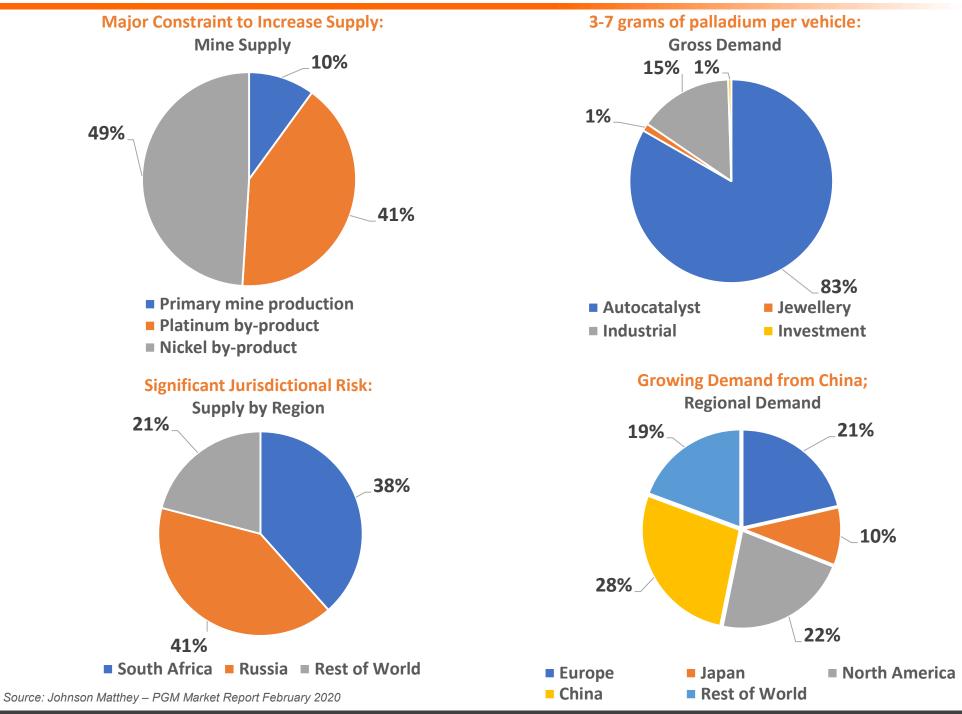
"Exploration and Development of Large-Scale, Platinum-Group-Element (PGE)-Copper-Nickel Deposits in Finland and Canada"

"Our flagship project is the palladium dominant, Läntinen Koillismaa ("LK") PGE-Cu-Ni project, located in north-central Finland"

- ✓ Palladium more valuable than gold @ ~US\$2,300/oz
- ✓ 8 year supply deficit, with inelastic supply
- Industry consolidation underway
- ✓ Best-in-Class jurisdictions
- ✓ Existing NI 43-101 open pit constrained resource underpins value proposition
- Realistic resource growth expectations
- ✓ Fully funded drilling program underway



### **Palladium Market**



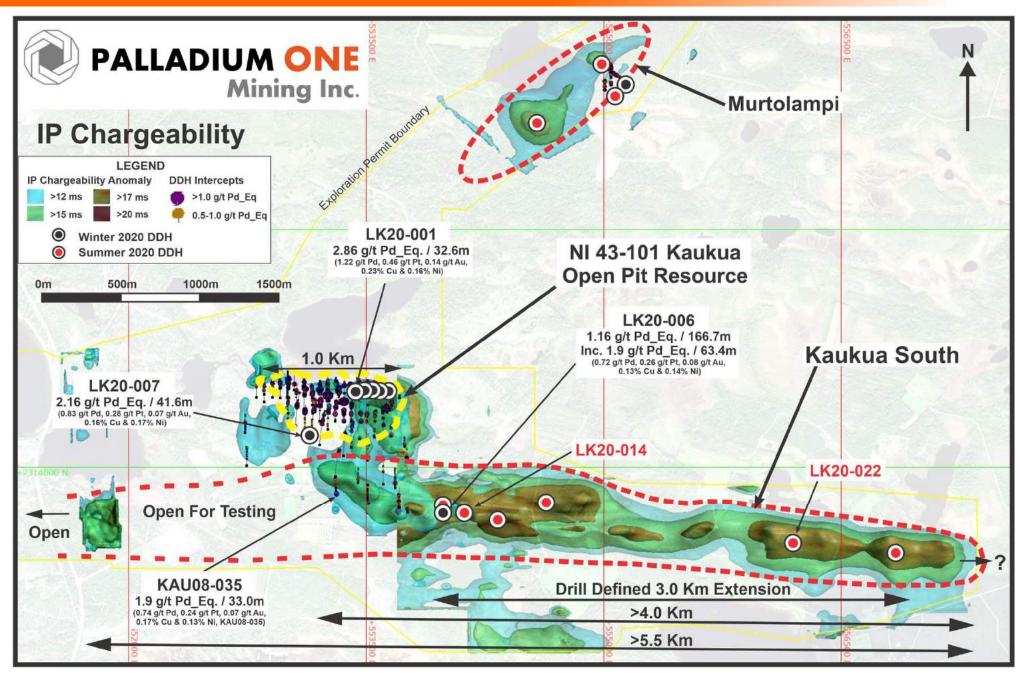
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### Major Discovery Increases Mineralized Strike Length to 4 km



- All 11 discovery holes were successfully drilled on the Kaukua South extension – each contain magmatic sulphide mineralization – rush assays are pending.
- Mineralized strike length increased from 600 m to 4 km at Kaukua South
- Orilling validates potential to significantly increase tonnage of NI43-101 pit constrained resources
- Confirms IP chargeability anomaly is the result of magmatic sulphides
- Shallow mineralization allowed more holes to be drilled, enabling modelling of potential tonnages
- Mineralized intercepts range from 15 to 100 m

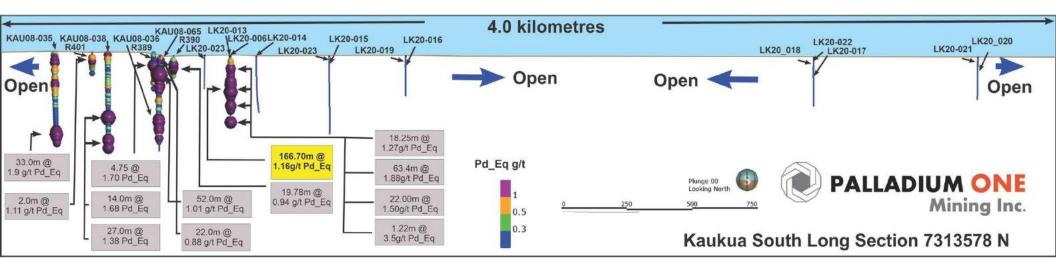
### Largest Palladium Dominant Project in 1<sup>st</sup> Class Jurisdiction?



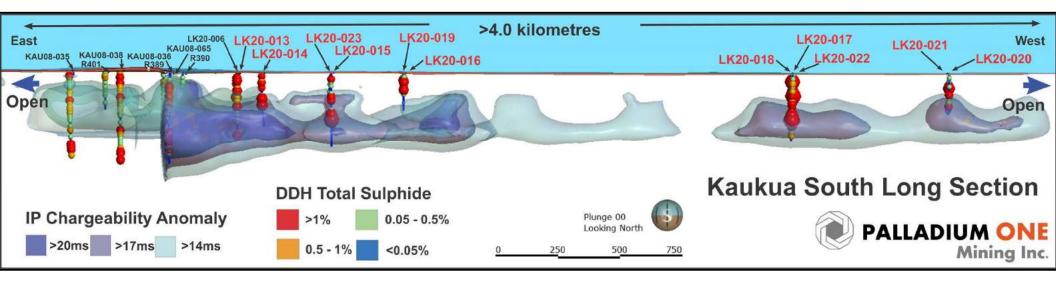
\*Palladium Equivalent "Pd\_Eq" is calculated using metal prices (in USD) of \$1,100/oz for palladium, \$950/oz for platinum, \$1,300/oz for gold, \$6,614/t for copper and \$15,432/t for nickel as used in the Company's 2019, 43-101 mineral resource estimate on the Kaukua Deposit (see press release September 9, 2019).

#### PALLADIUM ONE MINING INC.

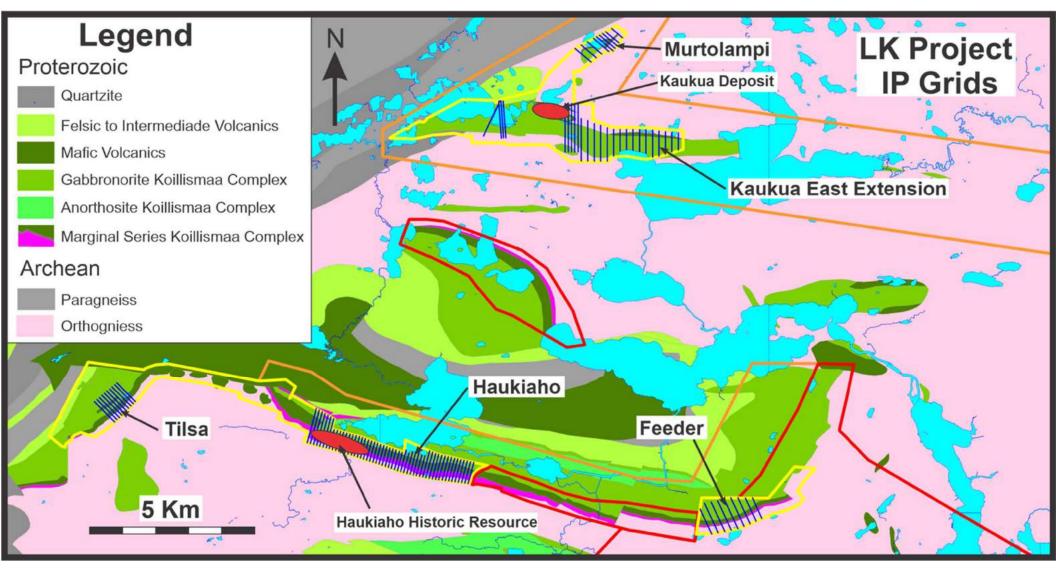
### LK Project: Long Sections – grade and sulphide



Kaukua South Long section showing IP Chargeability isoshells and down hole logged sulfide percentages, resumed Phase I drill holes labelled in red.



### **Proven Targeting Methodology**



Exploration Permits outlined in yellow, reservations in red, 2020 geophysics program (IP and Mag) in blue

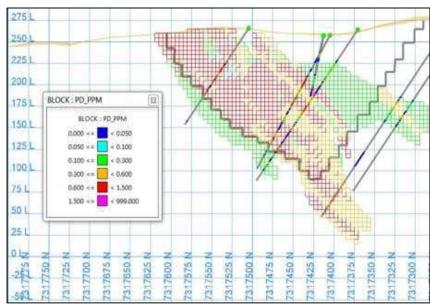
- Induced Polarization ("IP") proven very reliable in identifying PGE-Cu-Ni mineralization
- High-resolution magnetic ("Mag") for structural interpretation and outlining peridotitic rocks, commonly hosting PGE

# **Pit Constrained Resource Estimate**

- ✓ 635,600 Pd\_Eq ounces of Indicated Resources (1.80 g/t Pd\_Eq, 11 million tonnes)
- ✓ **525,800 Pd\_Eq ounces** of Inferred Resources (1.50 g/t Pd\_Eq, 11 million tonnes)
- Whittle pit optimization assumptions:

Element	Units	Price Assumption (US\$)
Palladium	per oz	\$1,100
Platinum	per oz	\$950
Gold	per oz	\$1,300
Copper	per lbs	\$3.00
Nickel	per lbs	\$7.00

	Value
Mining Recovery	95%
Mining Dilution	5%
Currency	USD
Royalties	1% NSR
Processing cost (incl. G&A)	\$9.75/t
Mining cost	\$2.20/t
Cut-off grade Pd	0.3
Overall Wall Angle	54.96



#### 3:1 waste: ore

Low cost open pit mining potential

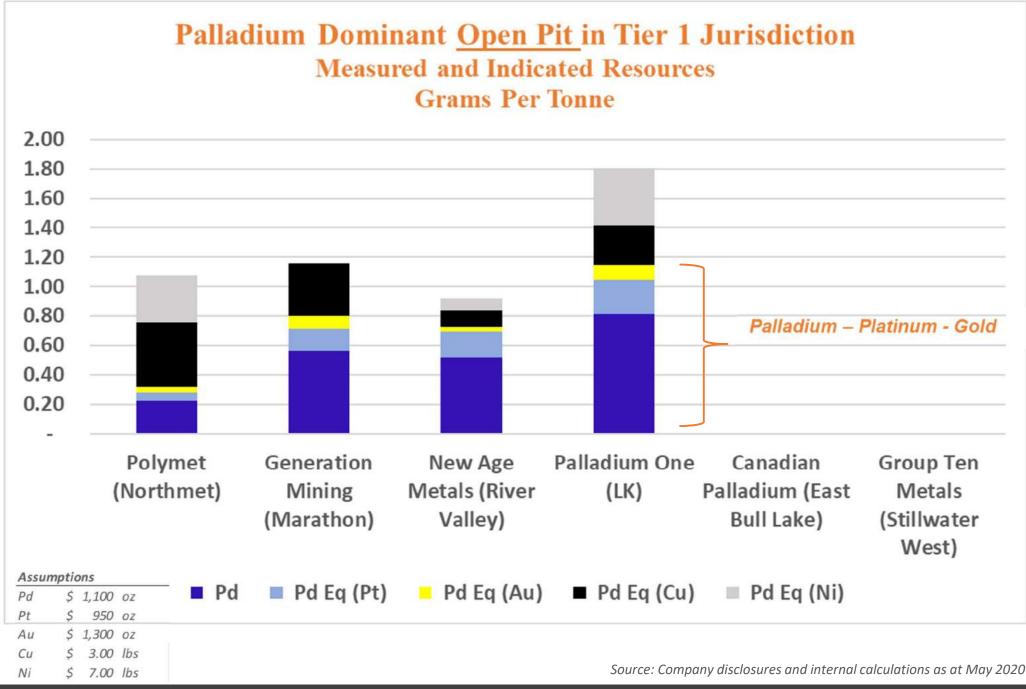
	<u> </u>								
Mineral Resource Estimate for the Kaukua Deposit – September 2019 reported at a 0.3 g/t Pd cut-off									
Classification	Tonnes (kt)	Pd	Pd Pt Au g/t g/t g/t	Au (Pd-	PGE (Pd+Pt+Au)	Ni %	Cu	Pd_Eq <sup>s</sup>	
		g/t			g/t	NI %	%	g/t	Oz
Indicated	10,985	0.81	0.27	0.09	1.17	0.09	0.15	1.80	635,600
Inferred	10,875	0.64	0.20	0.08	0.92	0.08	0.13	1.50	525,800

David Davidson, Senior Analyst, Paradigm Capital Inc. July 16, 2020

"We see a range of US\$30-\$70/oz used to value various precious metal and PGMs across the industry...our basecase assumption uses \$50/oz to reflect the strength in palladium and gold pricing."

(Source: Clean Air Metals Inc. Initiation Report)

### **Peer Grade Comparison**



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TSX-V:PDM FRA: 7N11 12

### LK Disseminated & KS Conduit Projects: Central Finland

### LÄNTINEN KOILLISMAA ("LK")

- 100% interest.
- ~38 km (3,674 hectares) of favourable basal contact.
- Low cost open pit mining potential.
- NI 43-101 open pit constrained resource completed on the Kaukua zone deposit.
- High-tenor, palladium dominated sulphide (3Pd:1Pt)
- Disseminated **intrusive marginal style** mineralization.
- Similarities to **Platreef** type deposits of the Bushveld Igneous Complex in South Africa

#### KOSTONJÄRVI ("KS") FEEDER/CONDUIT

- 100% interest, **royalty-free**, no holding costs.
- ~20 km strike length (20,000 hectares) of prospective feeder dyke.
- **Regional scale** gravity and magnetic geophysical anomaly.
- High-grade massive sulphide potential.
- **PGE-Cu-Ni magma conduit system** target
- Similarities to Noril'sk (Nornickel Russia) and Voicey's Bay (Vale - Canada)

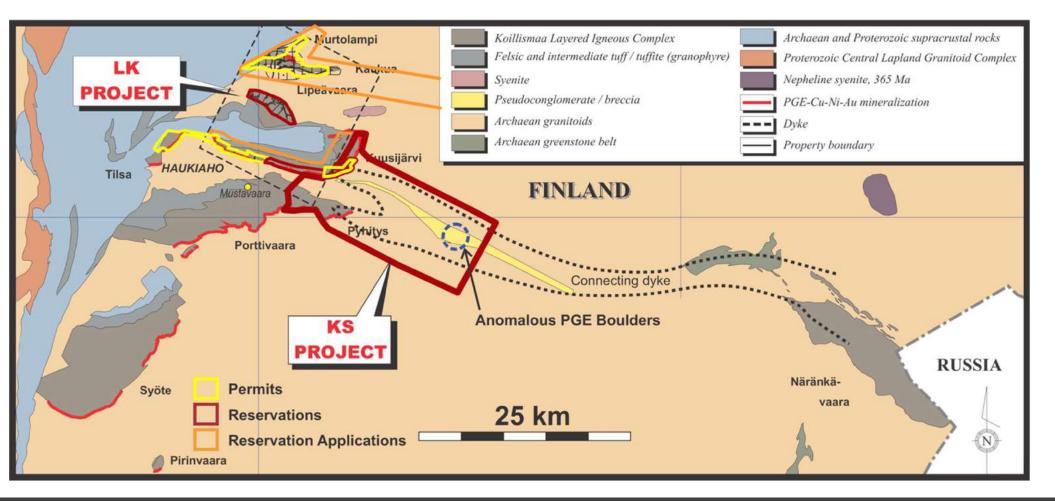
## LK Project: Metallurgical Advantages

- Disseminated, palladium-rich, high tenor sulphide
  - At 100% sulphide (mean):
    - ~84 g/t PGE (including ~58 g/t Pd), ~13% Cu and ~10% Ni
- Preliminary metallurgical work indicates:
  - Saleable concentrate by bulk floatation
  - Final concentrate grading 11.4% Cu, 4.5% Ni, 36.3 g/t Pd, 4.6 g/t Au and 7.8 g/t Pt
  - Final concentrate grades of 16-17% Cu+Ni have been obtained.
  - **Unoptimized recoveries** demonstrate scope for improvement:
    - Rougher: 86% Pd, 72% Pt, 85% Au, 95% Cu and 56% Ni
    - Cleaner: 73% Pd, 56% Pt, 78% Au 91% Cu and 48% Ni
  - *MgO below 4%, no smelter penalty*
  - 1.6% final concentrate mass pull = low shipping cost to smelter

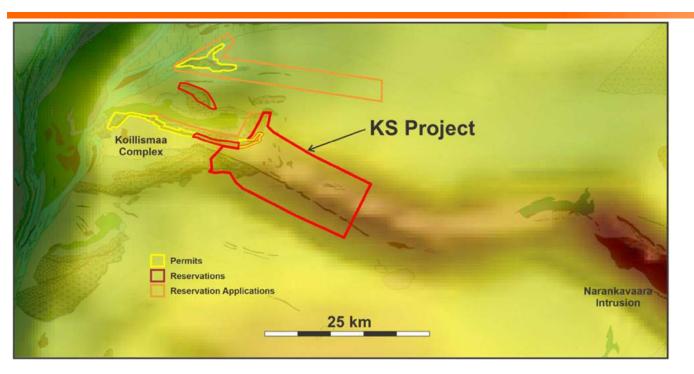
SGS Metallurgical testing conducted by SGS Canada Inc.

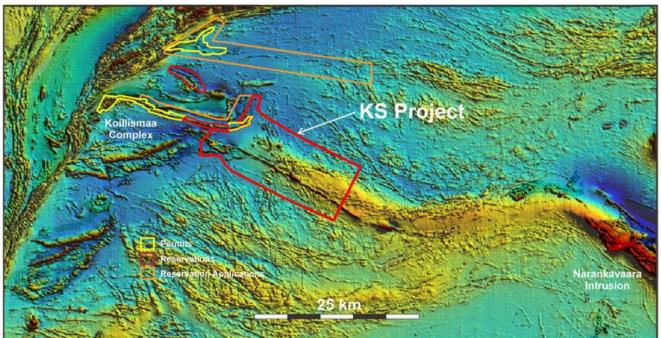
### **KS Feeder Project: High-Grade Massive Sulphide**

- 100% owned, district-scale, target is high-grade massive PGE-Cu-Ni sulphides.
- Feeder dyke target linked to LK project (similarities to Noril'sk & Voisey's Bay)
- Regional-scale gravity, magnetic and seismic surveys demonstrate dyke.
- Anomalous (>100ppb) **PGE bearing gabbroic boulders** (source yet to found).



### **KS Feeder Project: Gravity and Magnetic Anomaly**



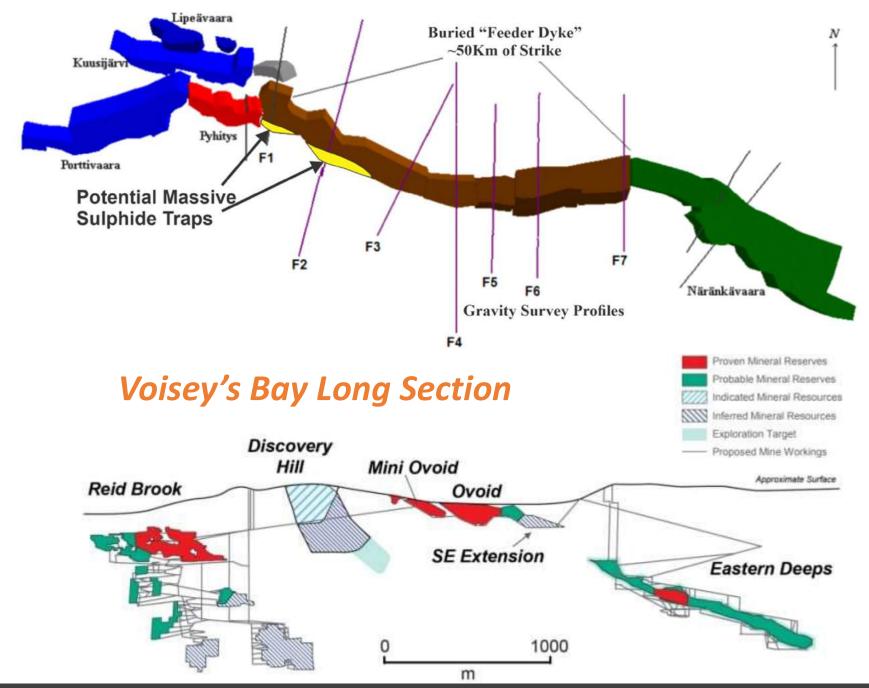


- 20,000-hectare.
- No holding costs.
- Few private landowners.

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- High tenor LK mineralization suggests massive sulphides could be very high value
- At 100% sulphide, LK hosts ~58 g/t palladium, ~84 g/t total-precious-metals (TPM) and 13% copper.

### **KS Project: 3D Model of the Buried Feeder Dyke**



### Key Takeaways



#### PALLADIUM MARKET FUNDAMENTALS

- Inelastic supply versus inelastic demand
- Environmental regulations demand greater consumption
- 8-year supply deficit 80% of supply is a by-product

#### LACK OF INVESTMENT ALTERNATIVES

REALISTIC RESOURCE EXPANSION

Very few advanced palladium exploration projects

**Credible resource growth** using proved methodology

Wide mineralized intercepts confirmed target extensions

Existing resources underpin value proposition



#### Brings exploration and capital markets experience to unlock value for shareholders

**TEAM** 

#### FINLAND ADVANTAGE

- Top mining jurisdiction (Fraser Institute)
- 3rd largest supplier of platinum & palladium
- Excellent infrastructure
- Strong mining culture (e.g. Boliden, Glencore, Agnico, Anglo, First Quantum)
- Major recent, massive sulphide, discoveries (e.g. Sakatti)
- *Proximity to major smelters in Finland and Sweden*



- I. Air quality regulations and mine supply deficit
- *II. PGE industry consolidation*
- *III. Regional data* (*Fennoscandian Shield*)
- *IV. LK* project geologic data
- V. Canadian nickel-copper-PGE projects (Tyko and Disraeli)
- VI. Other

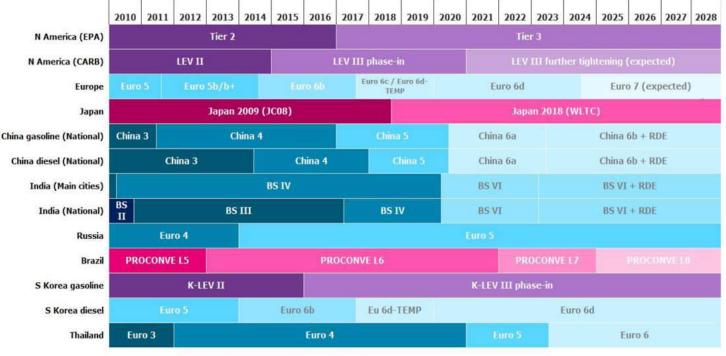
### **Palladium & Environmental Benefits**

#### Cleaner Air - Reduced Hydrocarbons

- Critical in reducing harmful emissions
- Stricter environmental standards = increasing demand
- **Diesel being phased out for gas** = increasing demand ٠
- **Unique properties** better suited to meet stricter emission standards. •
- Palladium is more durable and longer lasting.
- Real Driving Emissions (RDE) testing: palladium performs much better than platinum.

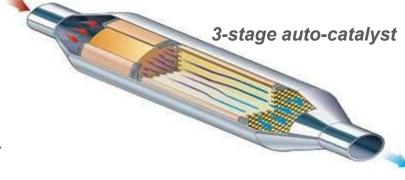


- Eight-year supply deficit
- Strategic reserves depleted
- ETF holdings depleted
- Limited new supply
- 94% (9.7M oz) used in auto-catalysts (2019)
- 6.9M oz global mine supply (2019)
- COVID-19 demand decrease offset by mine closures, reduced production



**Evolving Emission Legislation** LIGHT DUTY

Dates shown are for New Vehicle Type Approvals for passenger cars



#### TSX-V:PDM FRA: 7N11 20

# **Limited Investment Opportunities**

#### **Recent Transactions**

- December 2019 Impala buys North American Palladium US\$750 million
- June 2019 Sibanye Stillwater buys Lonmin US\$286 million
- January 2018 CD Capital buys Goldfield's Suhanko Project US\$40 million
- May 2017 Sibanye Gold buys Stillwater Mining US\$2.2 billion

#### **Top 5 Producers**

- 85% of global PGE production
- Market capitalization: ~US\$80 billion

#### **Exploration and Development Companies**

- 80% of industry dominated by South Africa and Russia supply
- Very few advanced exploration or early stage developers in top ranked mining jurisdictions



### Finland, Local Resources and Infrastructure



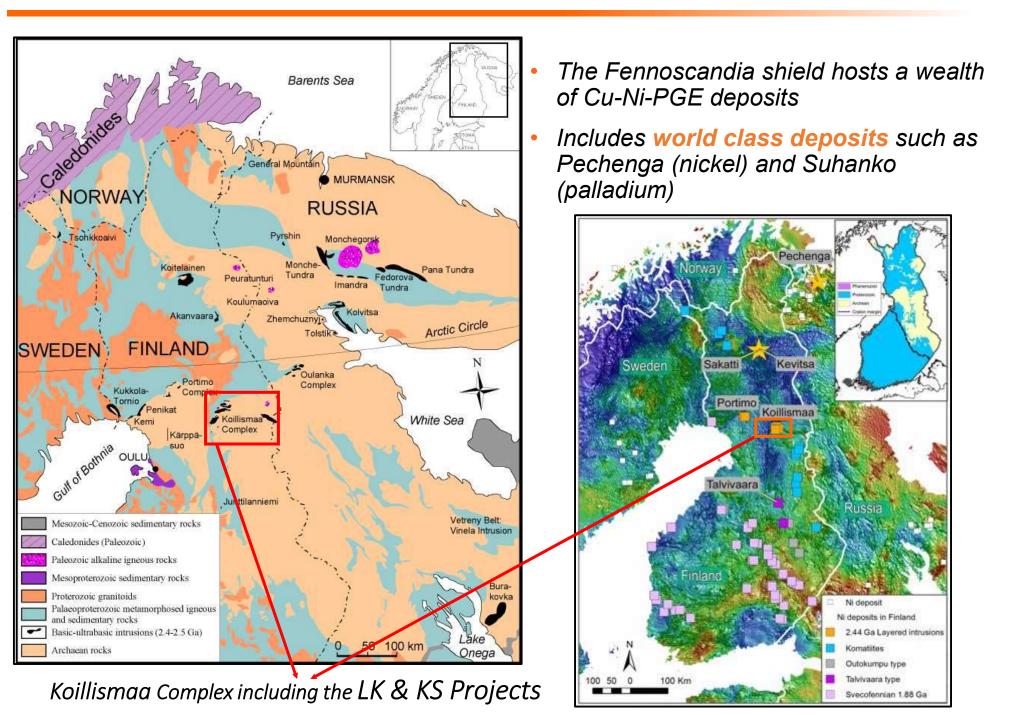
### ✓ Finland, Fraser Institute Ranking

- #1 Globally Mining Policy
- #2 Globally Investment Attractiveness

### Local mining history

- Existing infrastructure decreases development capital
  - Paved road(s) access
  - Railway
  - High-voltage power on property
  - Labour, Skilled Trades / Workshops
- Copper and Nickel smelters in Finland and Sweden
- Outside of "Natura 2000" protected lands
  - *Major city: population of 200,000, 190 km from project*
  - Smaller cities located 160, 90 km from project

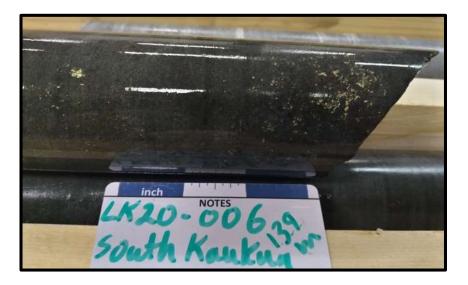
# **Finland: Elephant Country Geology**

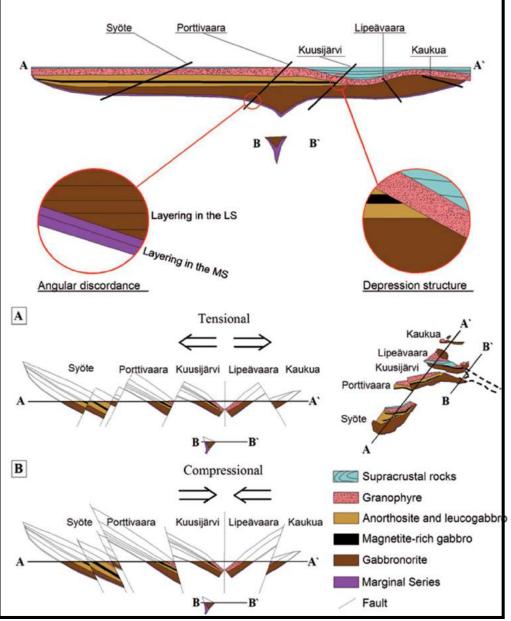


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## LK Project: Open Pit Disseminated Sulphide

- Hosted by the laterally extensive basal phase of Koillismaa Complex
- Post intrusion deformation has extensively exposed favourable basal phase at surface
- High-tenor, palladium dominated sulphide (3Pd:1Pt)

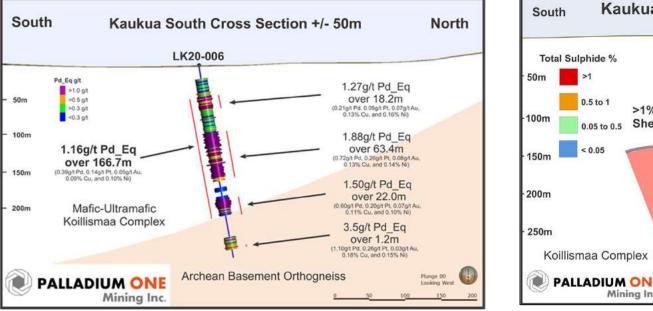




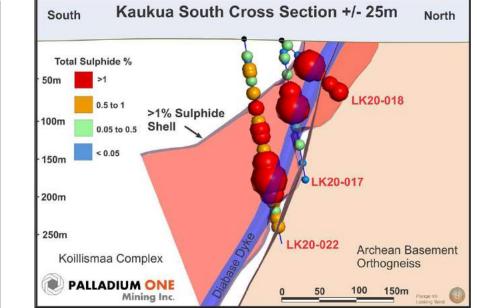
Cross section of the original sheet-like Koillismaa Intrusion with current erosion level of the blocks and two possible scenarios explaining the present intrusion structure: tensional (A) and compressional (B). Modified from Alapieti & Lahtinen (1984) and Karinen (1998). Abbreviations: LS = Layered Series, MS = Marginal Series (Basal Phase)

# LK Project: Long Sec., Drill Hole LK20-006 and LK20-007

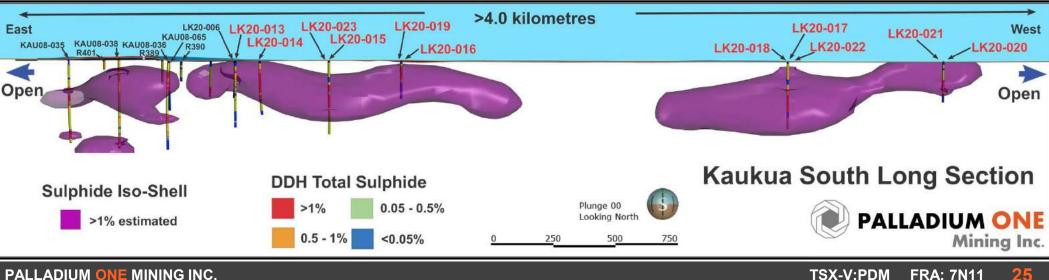
*LK20-006*, *discovery hole*, *180 meters east of nearest historic* drill hole.



LK20-018, 017 and 022 visual sulfide percentages

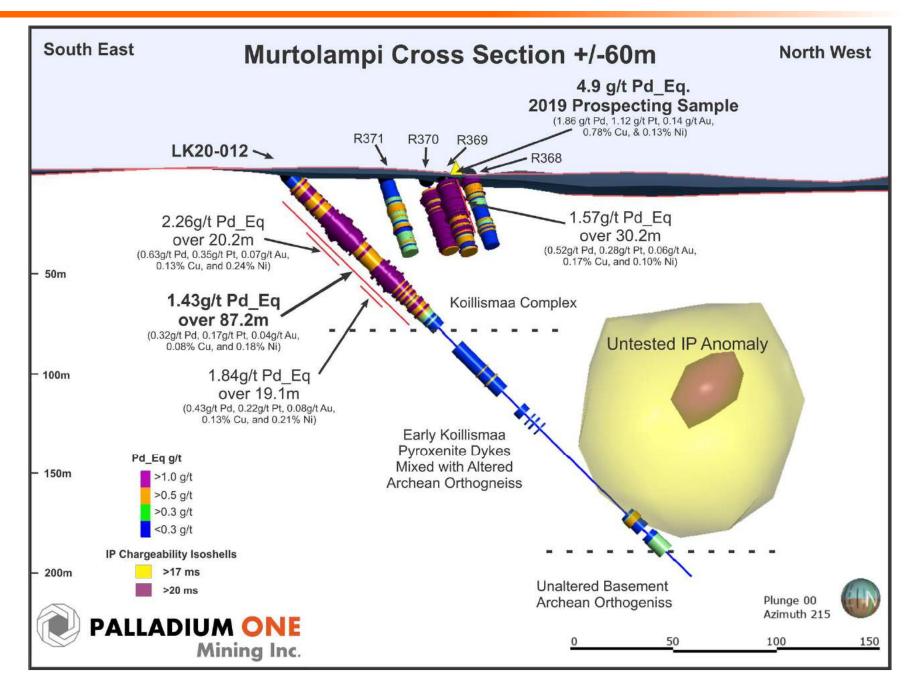


Kaukua South Long section showing the greater than 1% magmatic sulphide isoshell derived from visual inspection of down hole percent sulfide from drill logs. Resumed Phase I diamond drill holes are labelled in red.

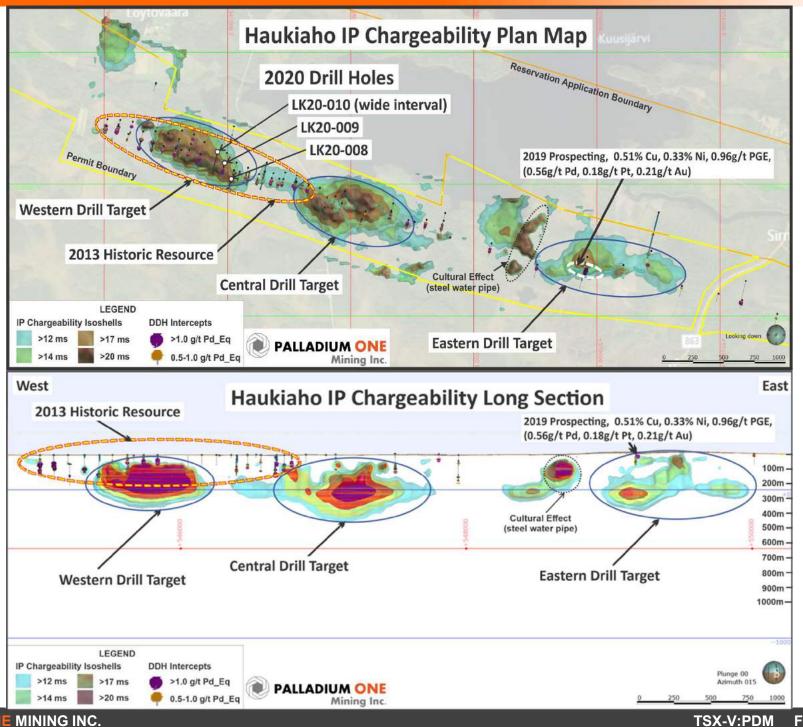


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### LK Project: Murtolampi Zone, Drill Hole LK20-012



### LK Project: Haukiaho Area Resource Expansion



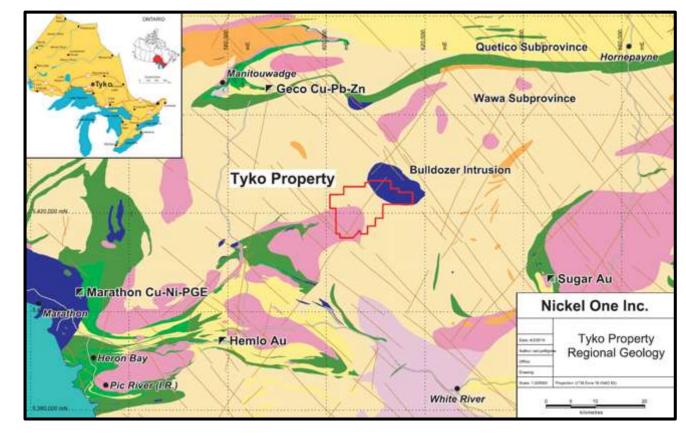


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### Tyko Nickel Property: Ontario, Canada

An Archean mafic-ultramafic intrusion located in the mining friendly province of Ontario, Canada.

- Located 55 km northeast of the <u>Marathon deposit</u> which hosts a M&I resource of:
  - <u>3.0 million ounces of Pd @</u> 0.78g/t,
     0.9 million ounces of Pt @ 0.23g/t and
     618 million lb of Cu @ 0.24%
- Hosted by metamorphosed gabbro and pyroxenite which has been intruded by later granitoid rocks.
- Abundant rip-up clasts indicative of an active feeder-type system.
- Nickel-rich with an average Ni:Cu ratio of ~2:1 and a Pt:Pd ratio of ~1:1
- Sulphides typically disseminated to blebby with local patches of nettextured and semi-massive sulphide breccia.



#### The sulphide tenor of mineralization is very high.

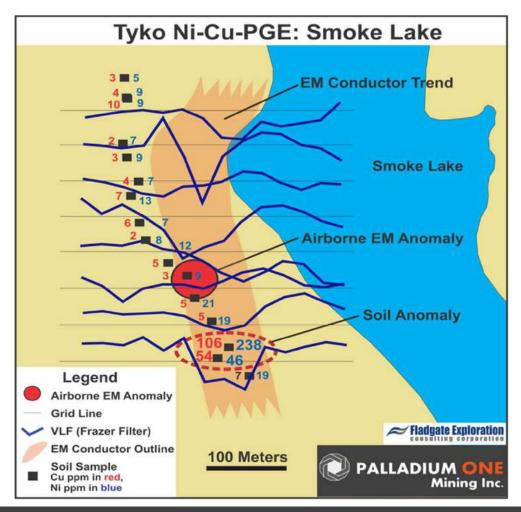
- Indicated tenors in 100% sulphide average 8.6% Ni, 4.6% Cu, and 3.3g/t
   PGE at the RJ Zone and 16.3% Ni, 8.70% Cu, and 12.8g/t PGE at the Tyko Zone.
- The high tenor of the sulphide suggests a high value flotation concentrate could be produced.
- Indicates that even a disseminated sulphide deposit could potentially be economic

### **Tyko Nickel Property: Drill Ready**





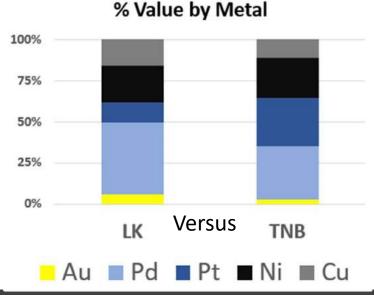
- TK-16-011: 1.47% Ni , 0.49% Cu and 0.71 g/t PGE over 6.05m: Including 2.12% Ni, 0.48% Cu and 0.94 g/t PGE over 3.15m (Tyko Showing)
- >20x background Ni-Cu soil anomaly coincident with untested airborne EM and VLF anomaly at Smoke Lake

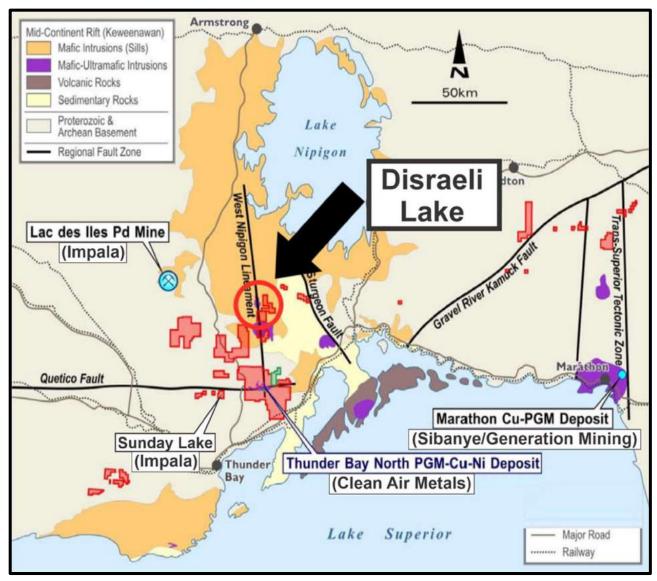


## Disraeli PGE-Ni-Cu Property: Ontario, Canada

Located in the PGE-rich Nipigon Plate of the Proterozoic midcontinent rift, near Thunder Bay, Ontario.

- 2,500-hectare project along the <u>West</u> <u>Nipigon lineament</u> that hosts the Thunder Bay North (TBN), Seagull and Disraeli Intrusions
- Located 40 km north of Clean Air Metals TBN deposit with a M&I resource of:
  - 355,000 ounces of Pd @ 1.07g/t, 377,000 ounces of Pt @ 1.13g/t

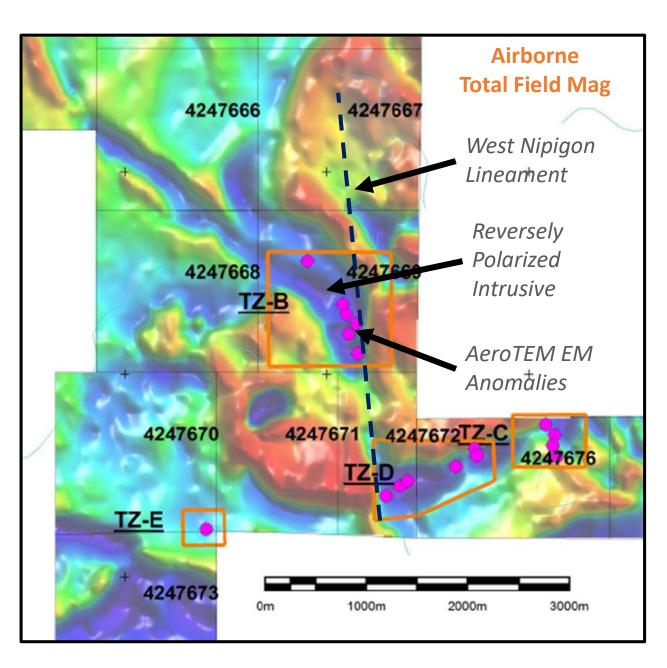




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# Disraeli PGE-Ni-Cu Property: Highlights

- **Drill Ready**, ground-work completed:
  - High resolution airborne Mag, EM, & IP
  - Mapping, soils and lake sediment surveys
- Several untested airborne EM anomalies in possible ultramafic core of the intrusion
- Drilling has not tested the highest priority target under the Disraeli Lake
- Target:
  - Disseminated to massive sulphides in a feeder conduit / dike, similar to TBN intrusion.
  - Disseminated sulphides in a basal phase similar to Sunday Lake Intrusion.











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