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# NEW CRAIGMONT COPPER PROJECT

NICOLAMINING.COM

**MARCH 2021** 



**Cautionary Statement Regarding Forward-Looking Statements** 

Certain statements and projections in this presentation are forward-looking statements and forward-looking information within the meaning of applicable securities laws. Forward-looking information is frequently characterized by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may" occur. Forward-looking information in this presentation includes, but is not limited to, statements regarding the beliefs, plans, expectations or intentions of management, as of the date of this presentation, regarding: (i) Nicola Mining Inc.'s (the "Company" or "Nicola") plans and expectations relating its 2021 and 5 year exploration plans on its Craigmont Project; (ii) the Company's ability to upgrade Cu mineralization grades via the utilization of the TOMRA Tertiary XRT Sorter Conveyor; (iii) the Company's various projects. Although the Company believes that the expectations reflected in the forward-looking information are reasonable, there can be no assurance that these expectations and assumptions will prove to be correct. Such forward-looking statements are subject to risks and uncertainties that may cause actual results, performance or developments to differ materially from those contained in the statements including, without limitation, the risks that: (1) fluctuations in commodity pricing, specifically copper, gold and silver; (2) the Company's projects; (5) unexpected interruptions and problems encountered in the operations of the Merritt mill facility; (6) factors that delay or cause difficulties with the milling and the extraction of minerals from the Company's projects; (5) unexpected interruptions and problems encountered in the operations of the Merritt mill facility; (6) factors that delay or cause difficulties in timing of shipments of concentrates by the Company; (7) potential negative financial impact from regulatory investigations, claims, lawsuits and other legal proceedings and challenges; (8) that th

There is a significant risk that such forward-looking statements will not prove to be accurate. No assurance can be given that any of the events anticipated by the forward-looking statements will occur or, if they do occur, what benefits the Company will obtain from them. Given the current state of the global financial markets, global commodity markets, especially the recent volatility in copper, gold, and silver prices and current economic conditions, any forward-looking statements or projections may be impacted significantly. Consequently, there is no representation by the Company that actual results achieved will be the same as those forecast. You are cautioned not to place undue reliance on these forward-looking statements. No forward-looking statements is a guarantee of future results. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. Additional information about these and other risks and uncertainties are set out in the section entitled "*Risk Factors*" in the Company's MD&A filed on SEDAR at www.sedar.com.

**Cautionary Note Regarding Technical Information** 

Unless otherwise indicated, all scientific and technical information in this presentation regarding the Craigmont Project is derived from the Company's technical report entitled "NI 43-101 Technical Report on the Preliminary Copper Resource for the Southern Dump and 3060 Portal Dumps" dated May 21, 2020 prepared by Kevin Wells, P Geo., and James N. Gray, P Geo. Such information is based on assumptions, qualifications and procedures which are not fully described herein. Reference should be made to the full text of these documents which were filed under the Company's profile on SEDAR at www.sedar.com on June 1, 2020 and June 12, 2012, respectively. Kevin Wells, P. Geo., is a Qualified Person under National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101") and is responsible for and has approved the technical contents of this presentation relating to the Craigmont Project.

Historical information contained in this news release cannot be relied upon as the Company's Qualified Person, as defined under NI 43-101 has not prepared nor verified the historical information.

of Disclosure for Mineral Projects ("NI 43-101") and is responsible for and has approved the technical contents of this presentation relating to the Craigmont Project.

### (OVERVIEW)

New Craigmont is 100% owned by Nicola Mining, located in southern British Columbia. Both open pit and underground mining was used to extract copper and magnetite from 1958-1982. Mining ceased due to copper price of ~\$0.60/lb.

#### The site has **excellent infrastructure**:

- Road right to site,
- Adjacent to major highway (BC Highway 8 and Coquihalla),
- Connected to power (BC Hydro grid connected for mill),
- Water permit in place.

### The right land package:

- Holds mine and mill permit (Permit M-68),
- consolidated land ownership in 2015 for the first time since 1993,
- 10,913 ha of 100% ownership of mineral claim tenure.

### In the right rocks:

- Historically, the mine produced ~890 Mlbs copper.
- Adjacent to TECK's Highland Valley Copper District, one of North America's largest copper producing districts.

### With significant **exploration potential**:

- NI 43-101 compliant inferred copper resource on historic mine "waste"
  - Ability to upgrade copper using XRT sorter technology.
- Multiple in-situ >1% Cu intercepts in recent years exploration drilling

## Both porphyry and skarn styles of mineralization have been encountered in recent exploration drilling







(LOCATION)

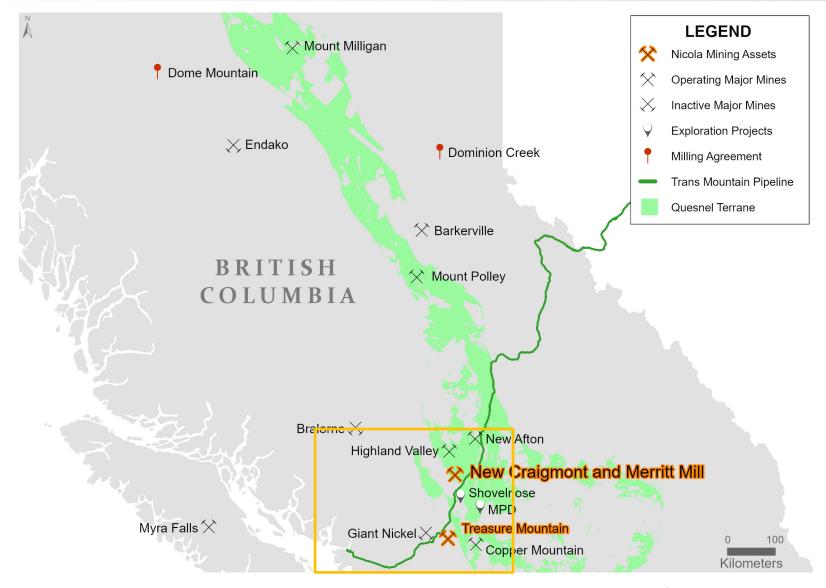


- BC is ranked as Top 20 for overall investment attractiveness<sup>1</sup>
- Excellent infrastructure
- In a prolific copper producing region

<sup>1</sup> Fraser Institute Annual Survey of mining companies 2020



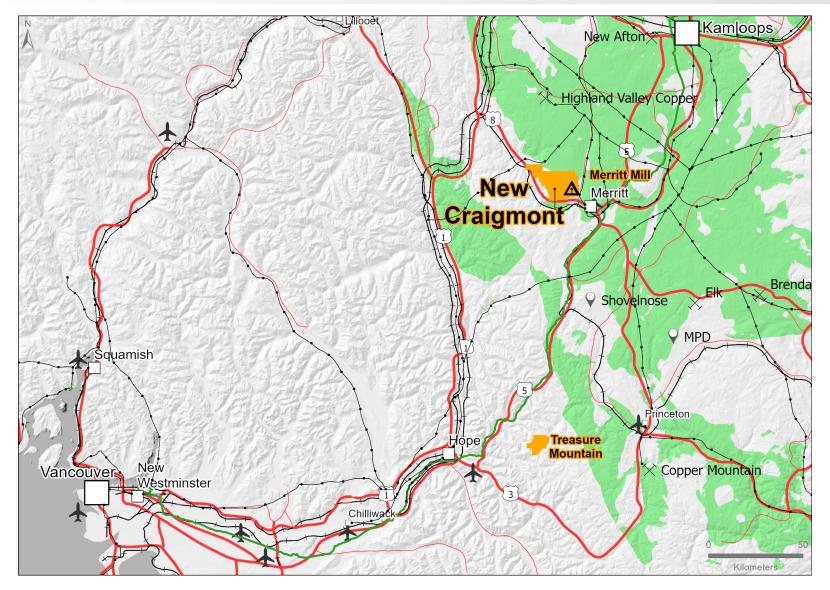
(LOCATION)



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(EXCELLENT TRANSPORT AND POWER INFRASTRUCTURE)





### NEW CRAIGMONT COPPER (PROLIFIC HISTORY)



- 1961-1982, Craigmont Mine produced 34Mt @
  1.3% Cu, both from underground and open pit mining operations
- Historic cut-off grade of 0.7% Cu
- Body No. 3 remains in situ

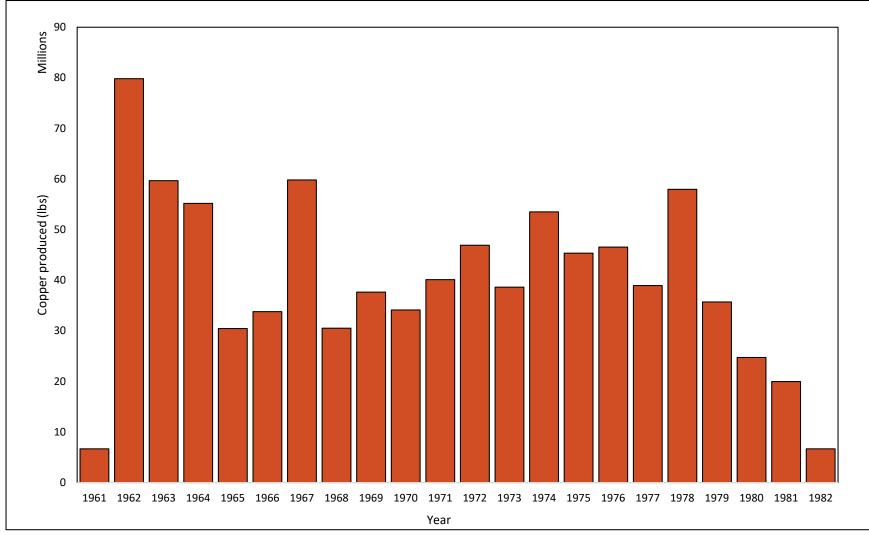




- 1993-2014, Magnetite produced from reprocessing of Craigmont Mine tailings
- Canada's leading producer of high-grade magnetite

(890 MILLION POUNDS OF COPPER OVER TWO DECADES)





Data source: BC Annual Reports 1961-1979 & Craigmont Mines Annual Report 1979-1982.

(HISTORY OF EXPLORATION)

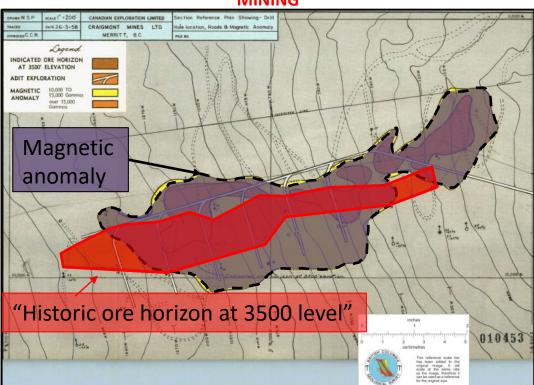
#### DISCOVERY

Initially identified by anomalously high magnetometer readings in conjunction with a copper soil anomaly.

Followed up with spectacular drill results in the late 1950's:

S-15: 640' (195.07 m) of 4.4% Cu

This lead to the development of Craigmont Mine.



## MINING



#### **PRE-MINE CLOSURE**

"No 'true' exploration was done underground (up to 1977) although as part of ongoing ore definition programme scattered holes were drilled to investigate specific areas or to confirm geological interpretations. Several thousand feet of drilling was done to define unexpected No. 3 type ore encountered west of section 7015"

----1979 - Three years to mine shut down ---

### HISTORIC EXPLORATION MODEL

"Sustained heating (from the Guichon Creek Batholith) promoted recrystallisation of the adjacent Nicola Group rocks leading to mobilisation and concentration of the contained copper and iron."

Source: Gregg Morrison (Review of Craigmont Mines on-site exploration Programme February 13, 1979)

### This exploration model was unsuccessful in adding significant new ore bodies to Craigmont Mine

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(CURRENT EXPLORATION)

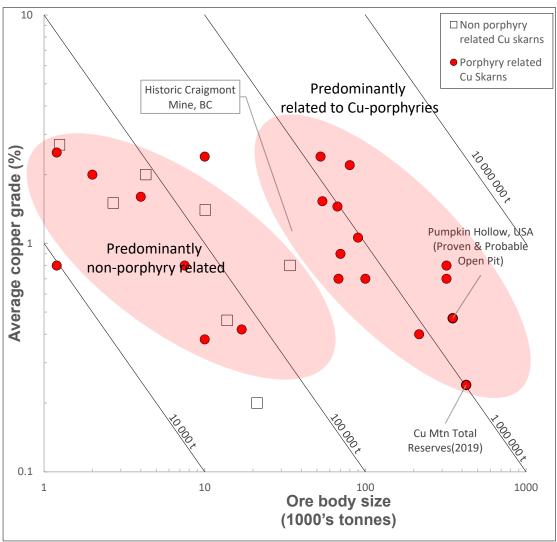


### **HISTORIC EXPLORATION INSIGHTS**

- Focused on targeting limy\* units for additional skarn (strata-bound)
- Viewed by exploration team as "non-porphyry" related
- Geophysical methods struggled with thick overburden and Kingsvale Group
- Largely unsuccessful in adding new resources
- Copper prices remain suppressed resulting in the eventual closure of Craigmont Mine

### **CURRENT EXPLORATION INSIGHTS**

- Compared to copper skarns worldwide, the historic production grade and tonnage of Craigmont skarn suggests it is similar to that of Cu porphyry-related skarns than non-porphyry related skarns.
- Additional skarn mineralization was obscured to historic geophysical techniques by thick overburden and/or Kingsvale Group
- Land package currently held is larger than that held by Craigmont Mines
- Copper mineralization is not controlled by lithology, but is related with alteration

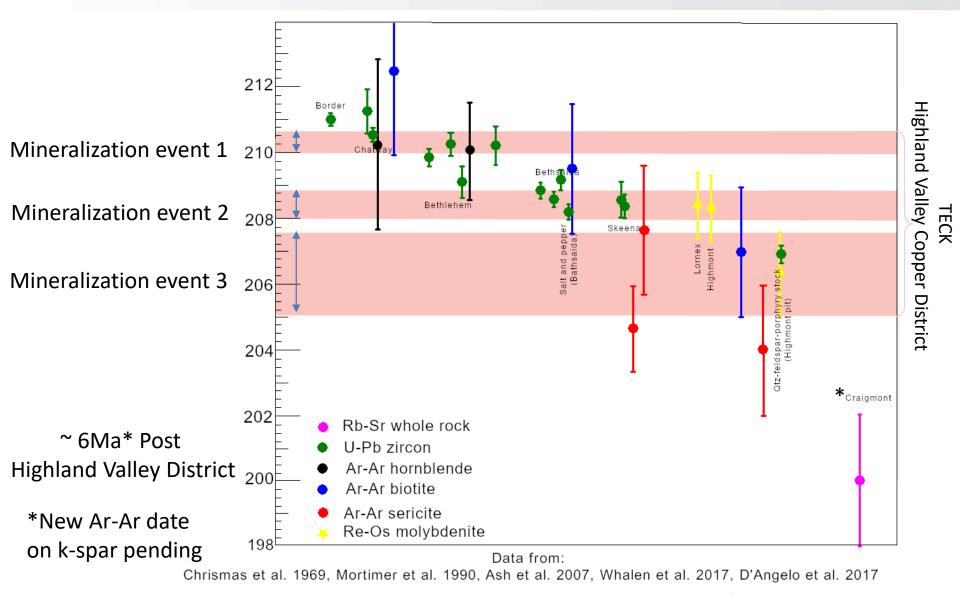


\* Limy units are rocks containing significant proportions of carbonate minerals such as limestones

Modified from: Dawson and Kirkham 1996

(RECENT REGIONAL GEOCHRONOLOGY)





(RECENT REGIONAL GEOCHRONOLOGY)



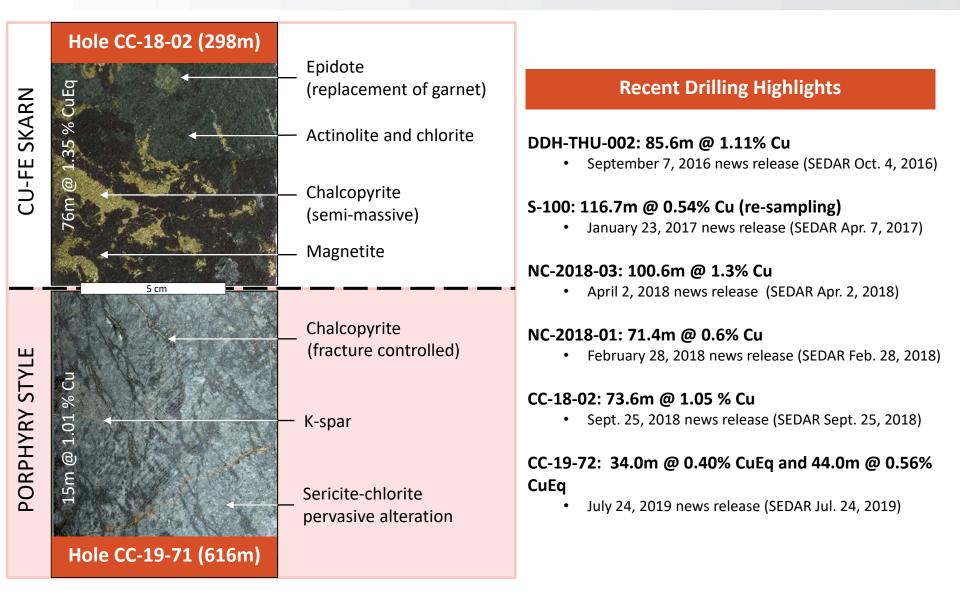
### Why is this significant?

- Previous exploration at Craigmont assumed the Guichon Creek Batholith (GCB) to be "BARREN".
- Copper mineralization in the district (and locally) is post-GCB (Titan Queen).
- Studies of the Highland Valley Copper Porphyry Deposits within the GCB have suggested that main-stage mineralization is generally related to zones of increased permeability which localize magmatism and hydrothermal activity.
- The contact between the GCB and Nicola Group is viewed here as an excellent rheological contrast and potential locus for hydrothermal fluids.
- The limy units\* proximal to this contact zone are altered to skarn, but chalcopyrite mineralization is not necessarily restricted to these units (i.e. chalcopyrite occurs as fractures outside of mined skarn).

<sup>\*</sup> Limy units are rocks containing significant proportions of carbonate minerals such as limestones

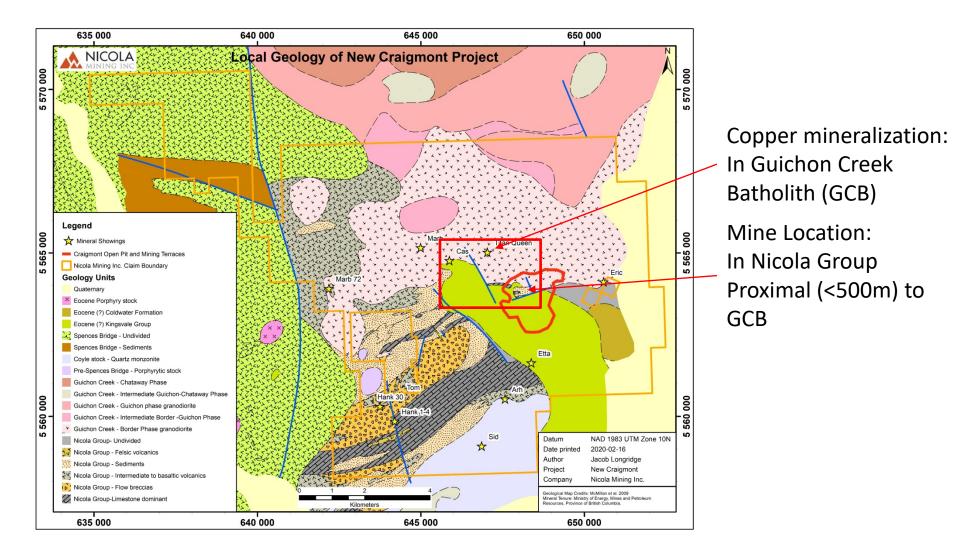
(RECENT DRILL RESULTS)





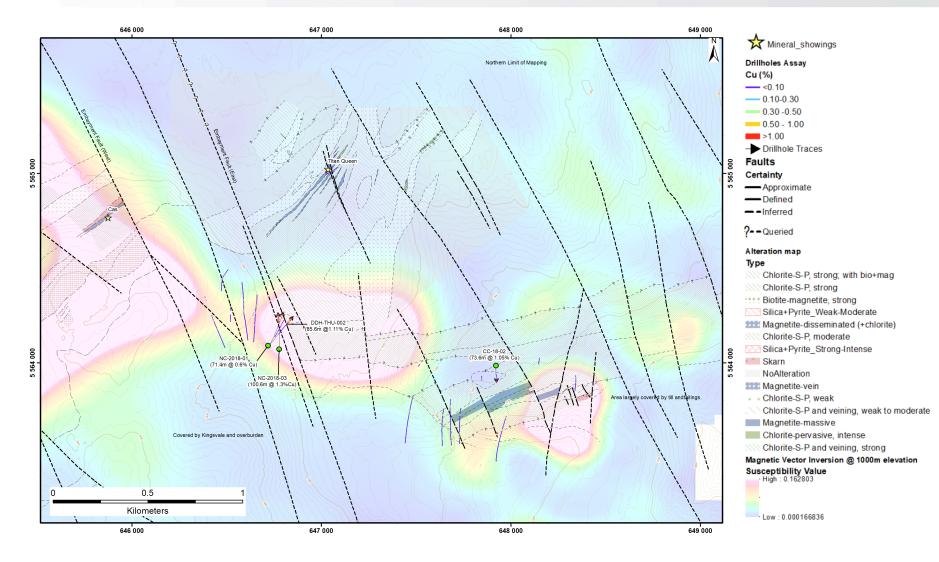
(LOCAL GEOLOGY)





#### (RECENT EXCEPTIONALLY MINERALIZED DRILL HOLES)

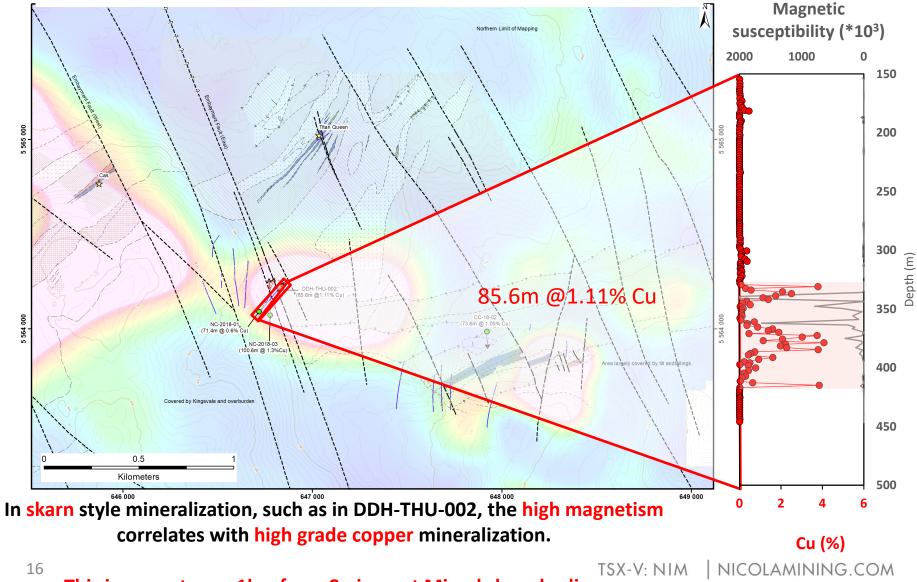




(MAGNETIC RESPONSE FROM MINERALIZED INTERCEPTS)



### **RELATIONSHIP BETWEEN MAGNETIC SUCEPTIBILITY AND COPPER**



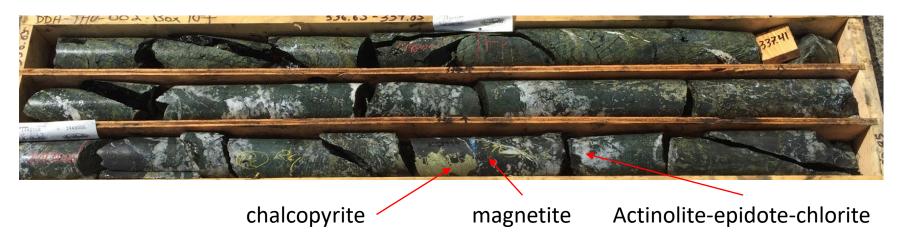
This is seen at over 1km from Craigmont Mined skarn bodies.

(MAGNETIC RESPONSE FROM MINERALIZED INTERCEPTS)



### THU-002 (85.6m @ 1.11% Cu)

- Actinolite-chlorite-magnetite-chalcopyrite skarn
- Strong magnetic response
- Semi-massive chalcopyrite associated with magnetite skarn

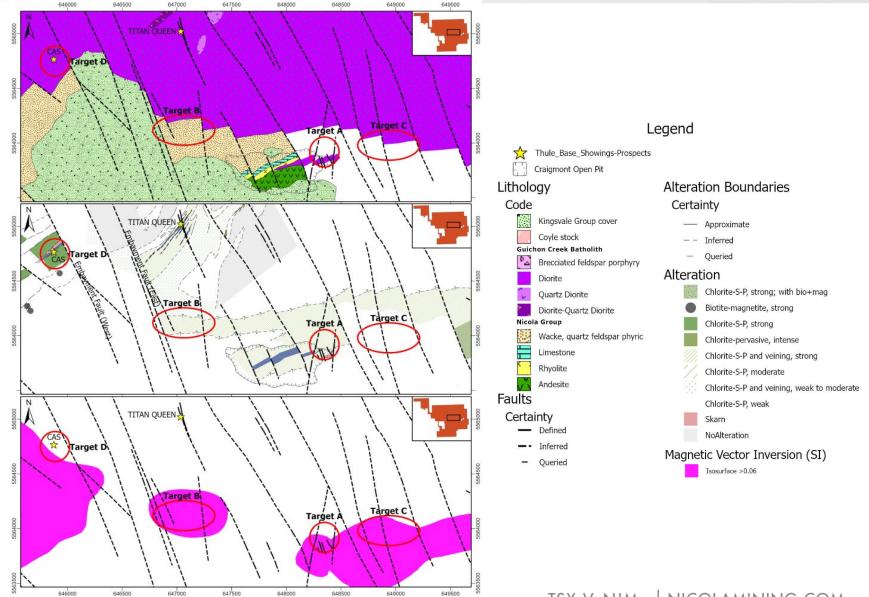


### CONCLUSION:

- 1. Zones of strongest magnetism correspond with semi-massive magnetite
- 2. Magnetite associated with chalcopyrite
- 3. Review aeromagnetic data for areas of high magnetic susceptibility
- 4. Areas may have been overlooked due to thick overburden

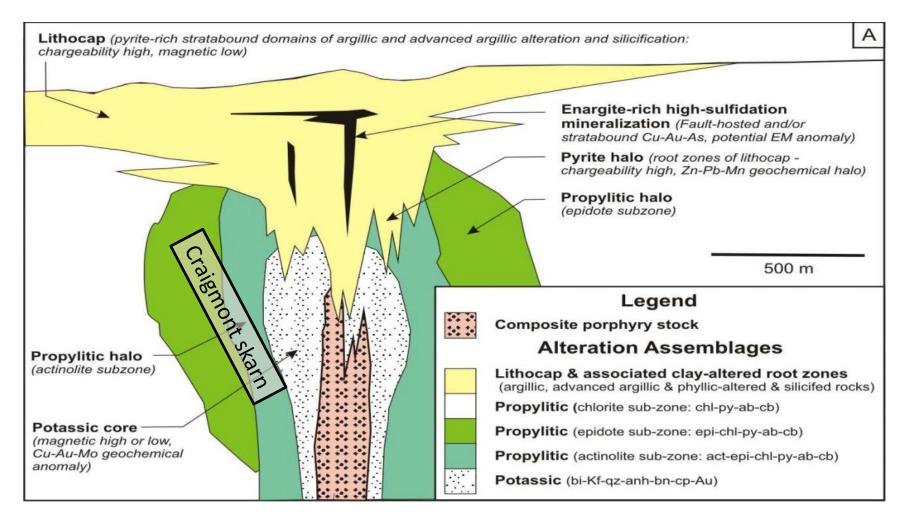
#### (2021 TARGETS MAGNETIC ZONES)





(CONCEPTUAL MODEL)



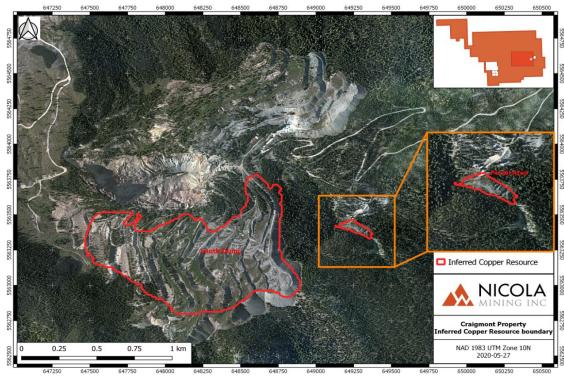


### Holliday and Cooke 2007

(NI 43-101 INFERRED COPPER RESOURCE)



Company announced Technical Report was prepared in accordance with NI 43-101 supporting the Inferred Copper Resource for the Southern Dump and 3060 Portal Dumps



Testing included understanding a potential economic contribution of

the XRT Sorter<sup>1</sup>

the magnetite and ability to upgrade Cu at the source of the waste dumps prior to transportation

The Company conducted testing via

Southern Dump		Portal Area		Inferred Mineral Resource	
Tonnes	Cu	Tonnes	Cu	Tonnes	Cu
(1000's)	(%)	(1000's)	(%)	(1000's)	(%)
18 465	0.13	204	0.23	18 669	0.13

<sup>1</sup>TOMRA Sorting Mining is owned by Norwegian company TOMRA Systems ASA, which is listed on the Oslo Stock Exchange. Founded in 1972, TOMRA Systems ASA has a turnover around €750m and employs over 3,500 people. For more information on TOMRA Sorting Mining, visit <u>www.tomra.com/mining</u>.

#### (XRT SORTER UPGRADING)



ALS Metallurgy's Laboratory ("ALS") report highlights TOMRA Tertiary XRT Sorter Conveyor's ("XRT Sorter") ability to upgrade Cu mineralized material factor about 5 times on average for the coarse fractions of samples from Southern and the 3060 Portal Dumps<sup>1</sup>

#### **Result Highlights**

Two floatation tests were conducted to produce the following concentrates:

- Final copper concentrate grading about 30% Cu was that contained 73% of the Cu.
- Additional testing utilizing magnetic separation created a concentrate of 65% Fe, which was 94% magnetite.



https://www.youtube.com/watch?v=OZABE04Ade4&t=199s

	Test Run	Mass recovery	Upgrade Percent	Copper Recovery
Southern Dump	T5.1	15.5%	519%	80%
	T6.1	10.2%	677%	69%
	T1.1	20.2%	379%	77%
	T2.1	11.8%	603%	71%
	T7.1	15.0%	322%	48%
Portal	T8.1	5.3%	1012%	54%
Area	T3.1	14.6%	355%	52%
	T4.1	5.2%	790%	41%

2021 - Follow Up Work

The Company expects to conduct additional tests to further define the NI 43 101 Report

- Additional testing of fines, which accounted for 54% of the sample to better understand grades and overall volume.
- Trench sampling to test grade of finer material and overall specific gravity.

<sup>1</sup>See the Company's news release dated June 15, 2020 which is filed under the Company's profile on SEDAR at <u>www.sedar.com</u> <sup>2</sup>Video from: https://www.tomra.com/en/sorting/mining/mining-technology



Explore and develop promising Craigmont copper mine in southern British Columbia:

- Permitted Mine (M-68) with near-term start up potential
- NI 43-101 inferred copper resource on historic mine waste terraces
  - expected to further augment resource with additional testing
  - An ability to upgrade Cu grades at source
- Exploration highlights historic skarn possibly associated with a porphyry system
  - 2021 expected to test for additional in-situ skarn mineralization
  - 5-year exploration plan with exploration permit pending
- Augmented IRR potential based on combining Cu and magnetite values

#### 2021 Exploration Program expected to commence in 1H of 2021



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