NORTHERNSHIELD RESOURCES INC.

SINTER TO CENTER AND VECTORS TO GOLD

Why Root & Cellar's Findings are Just the Tip of the Iceberg

PROMISING EXPLORERS' SERIES – March 2025

Photo Credit : Kurtis Walsh

FORWARD LOOKING STATEMENT

- This document contains statements concerning the potential for gold, silver, copper, tellurium and other mineralization at Root & Cellar and, geological, geophysical, geochemical and geometrical analyses of Root & Cellar and comparisons of the properties to known epithermal gold deposits, and other expectations, plans, goals, objectives, assumptions, information or statements about future events, conditions, results of operations or performance that may constitute forward-looking statements or information under applicable securities legislation. Such forward-looking statements or information are based on a number of assumptions which may prove to be incorrect, and such possible comparisons are provided for illustrative or analogical purposes only.

- Although Northern Shield believes that the expectations reflected in such forward-looking statements or information are reasonable, undue reliance should not be placed on forward-looking statements because Northern Shield can give no assurance that such expectations will prove to be correct. Forward-looking statements or information are based on current expectations, estimates and projections that involve a number of risks and uncertainties which could cause actual results to differ materially from those anticipated by Northern Shield and described in the forward-looking statements or information. These risks and uncertainties include but are not limited to geological, geophysical, geochemical and geometrical interpretation, the ability of Northern Shield to obtain equipment, supplies and qualified personnel necessary to carry on its exploration and operations, the general risks and uncertainties involved in mineral exploration and those other risks and uncertainties set forth in Northern Shield's management's discussion and analysis filed on SEDAR at www.sedar.com under its profile.

- The forward-looking statements or information contained in this document are made as of the date hereof and Northern Shield undertakes no obligation to update publicly or revise any forward-looking statements or information, whether as a result of new information, future events or otherwise, unless so required by applicable securities laws

NORTHERN SHIELD INTRODUCTION

Our Space

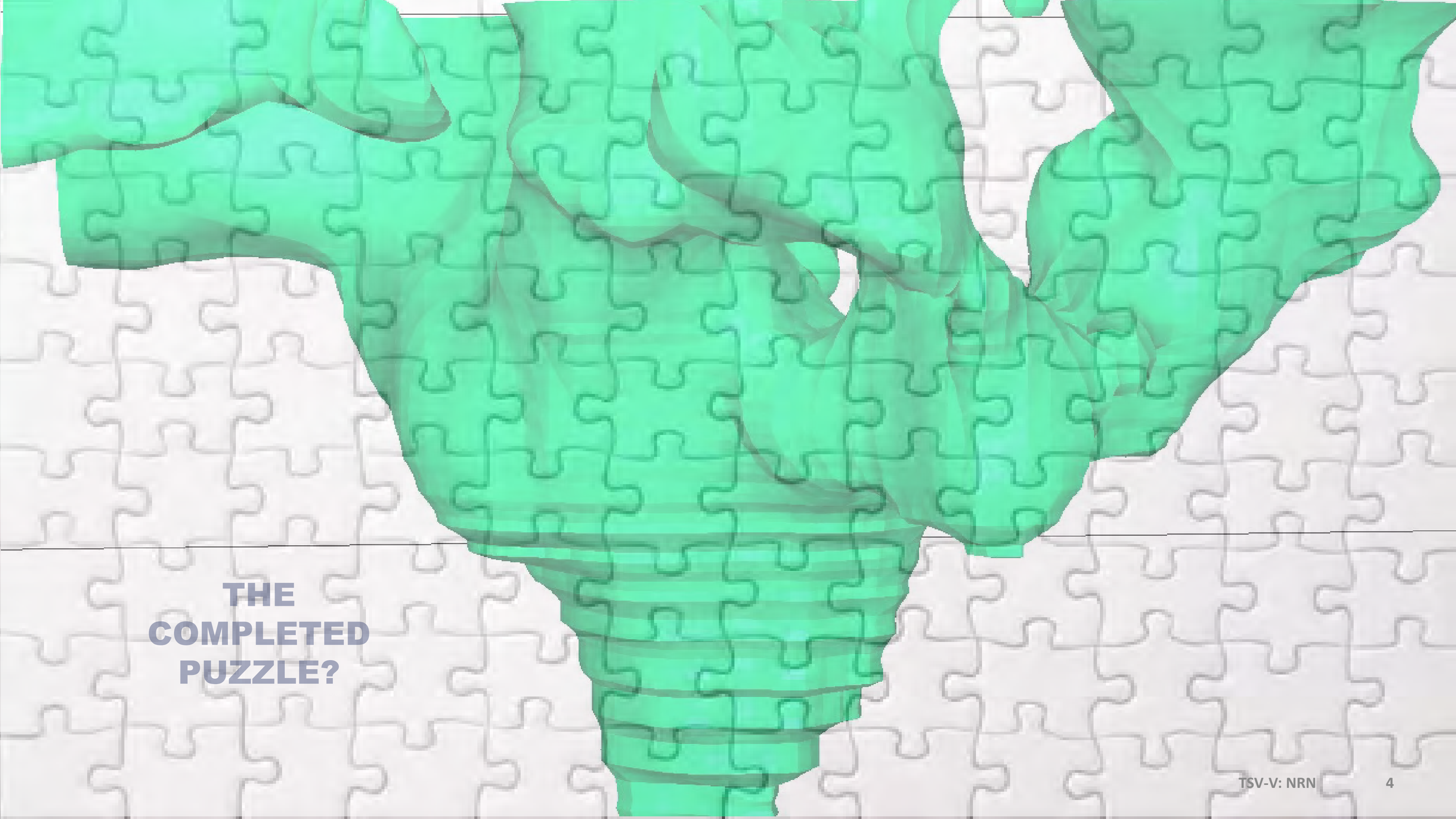
Northern Shield is well known for thinking outside the box. We are not followers. We initiate our own projects in underexplored regions that have the correct geological conditions that can support the notion of a giant and high-grade ore deposit.

Our Approach

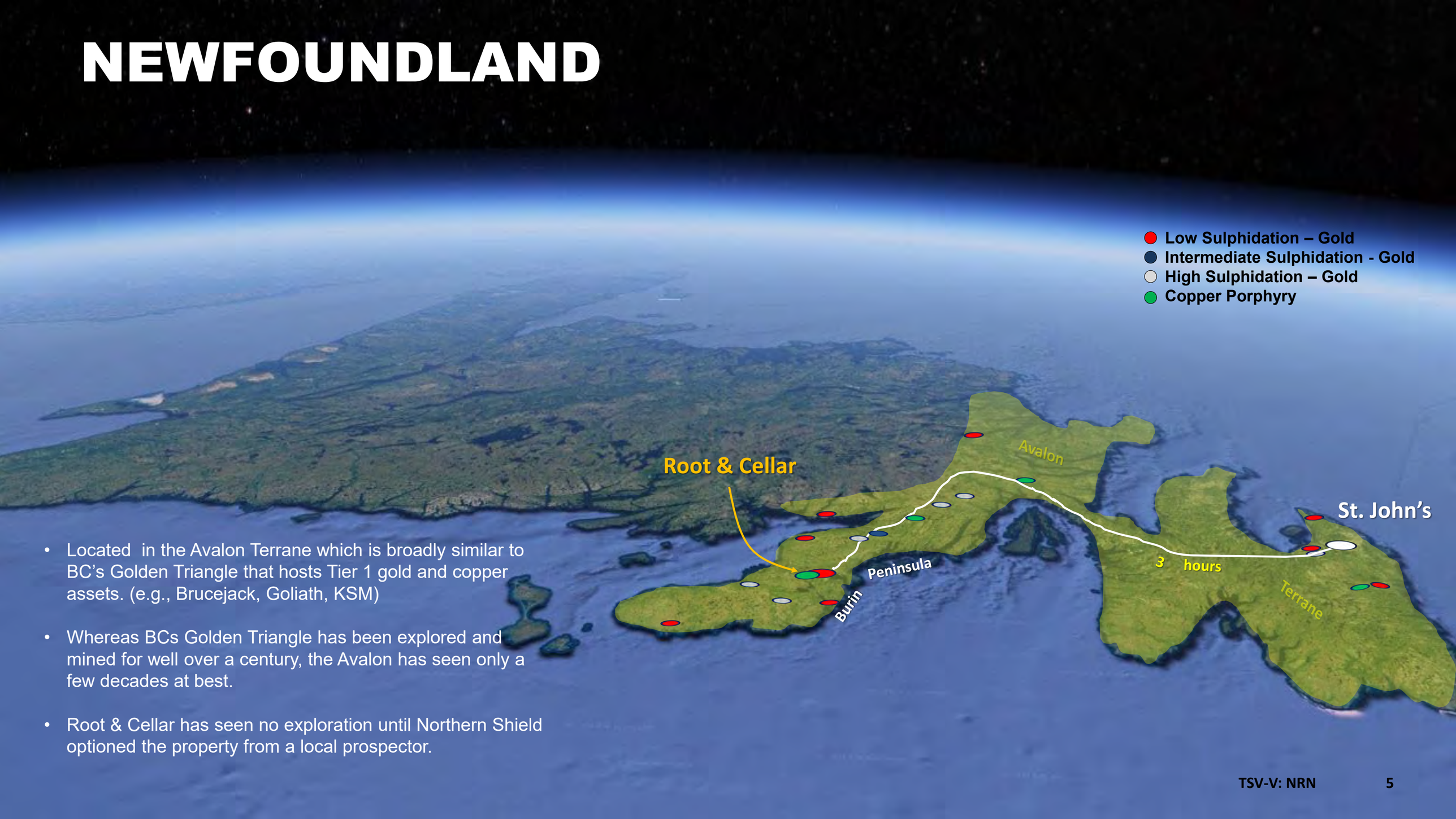
While many view such greenfield exploration as a risk, we see it as an opportunity to discover a Tier 1 asset, near surface, and at relatively low cost. We implement a detailed **model driven** approach in our exploration strategy to reduce risk for ourselves, our shareholders and the environment. This successful approach has led to past partnerships with **Hudbay, Teck, South32 and twice with Implats,**

Our Vision

We believe Root & Cellar it is well positioned to become the next significant discovery in Canada and has all the ingredients to form a **giant *and* high-grade epithermal gold systems.** When it comes to greenfield exploration for large, blind mineralized systems, we don't believe the evidence and location gets much better than this.

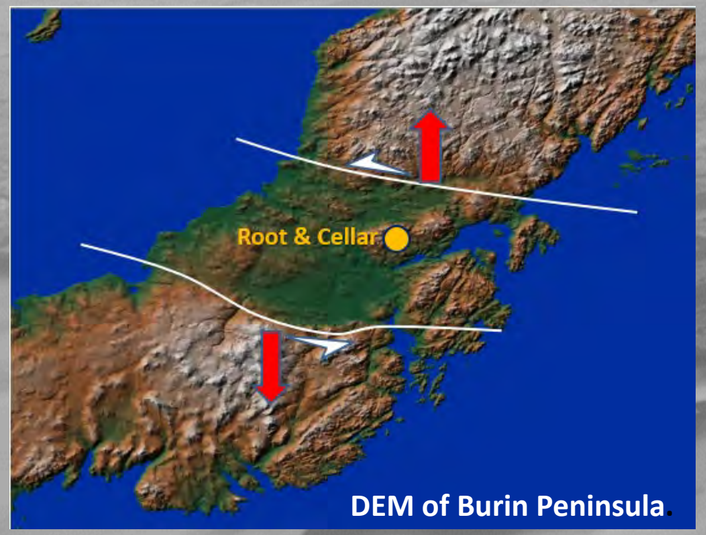

THE
COMPLETED
PUZZLE?

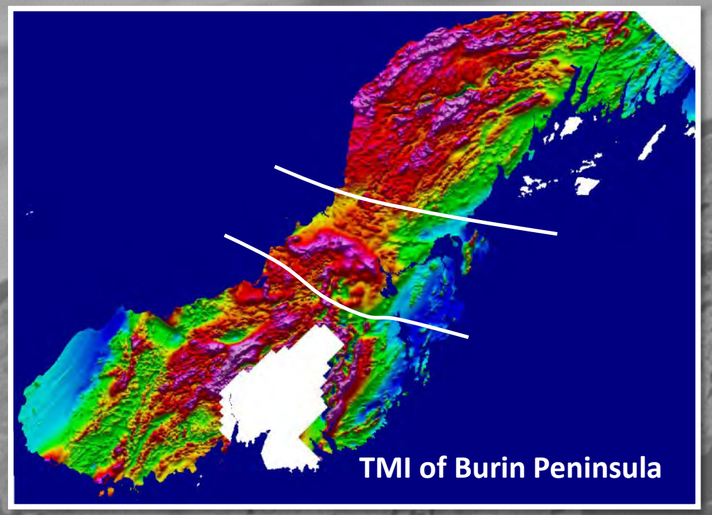
NEWFOUNDLAND



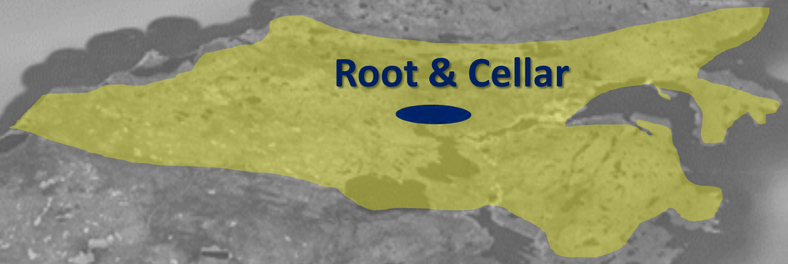
- Located in the Avalon Terrane which is broadly similar to BC's Golden Triangle that hosts Tier 1 gold and copper assets. (e.g., Brucejack, Goliath, KSM)
- Whereas BCs Golden Triangle has been explored and mined for well over a century, the Avalon has seen only a few decades at best.
- Root & Cellar has seen no exploration until Northern Shield optioned the property from a local prospector.

EXTENSIONAL TECTONICS –
THE FOUNDATION OF A GIANT EPITHERMAL ORE SYSTEM





- Rifting or extension provides ideal opportunity for large scale epithermal gold and copper porphyry systems through enhance magmatic and hydrothermal activity
- Extensional faulting also allows for large low pressures windows that can extend to great depth. It is a sudden drop in pressure that causes gold precipitation in epithermal systems.



Land of the Giants?

TELLURIUM (Te)
A CRITICAL METAL AND A GIANT ORE DEPOSIT INDICATOR

Tellurium is a critical metal as it is a key component in solar panels

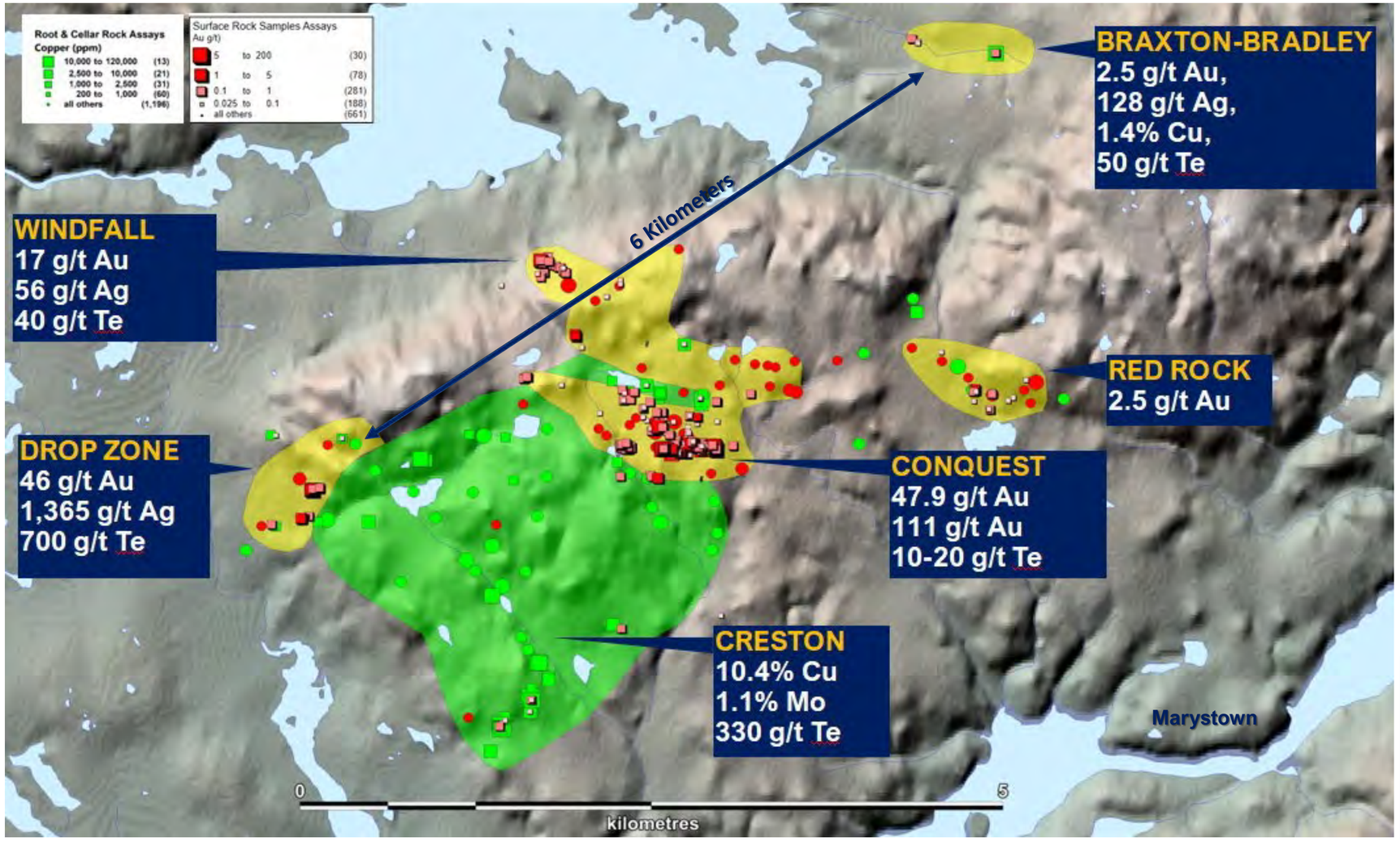
- One of the rarest element on the planet and 8x more rare than gold
- Primary source is as a by-product of a handful of epithermal gold, silver and copper deposits
- 90% of the world's tellurium currently produced in China.
- 5% produced in US

Tellurium is associated with very large AND high-grade epithermal gold deposits and related copper porphyry

ROOT & CELLAR - EXECUTIVE SUMMARY

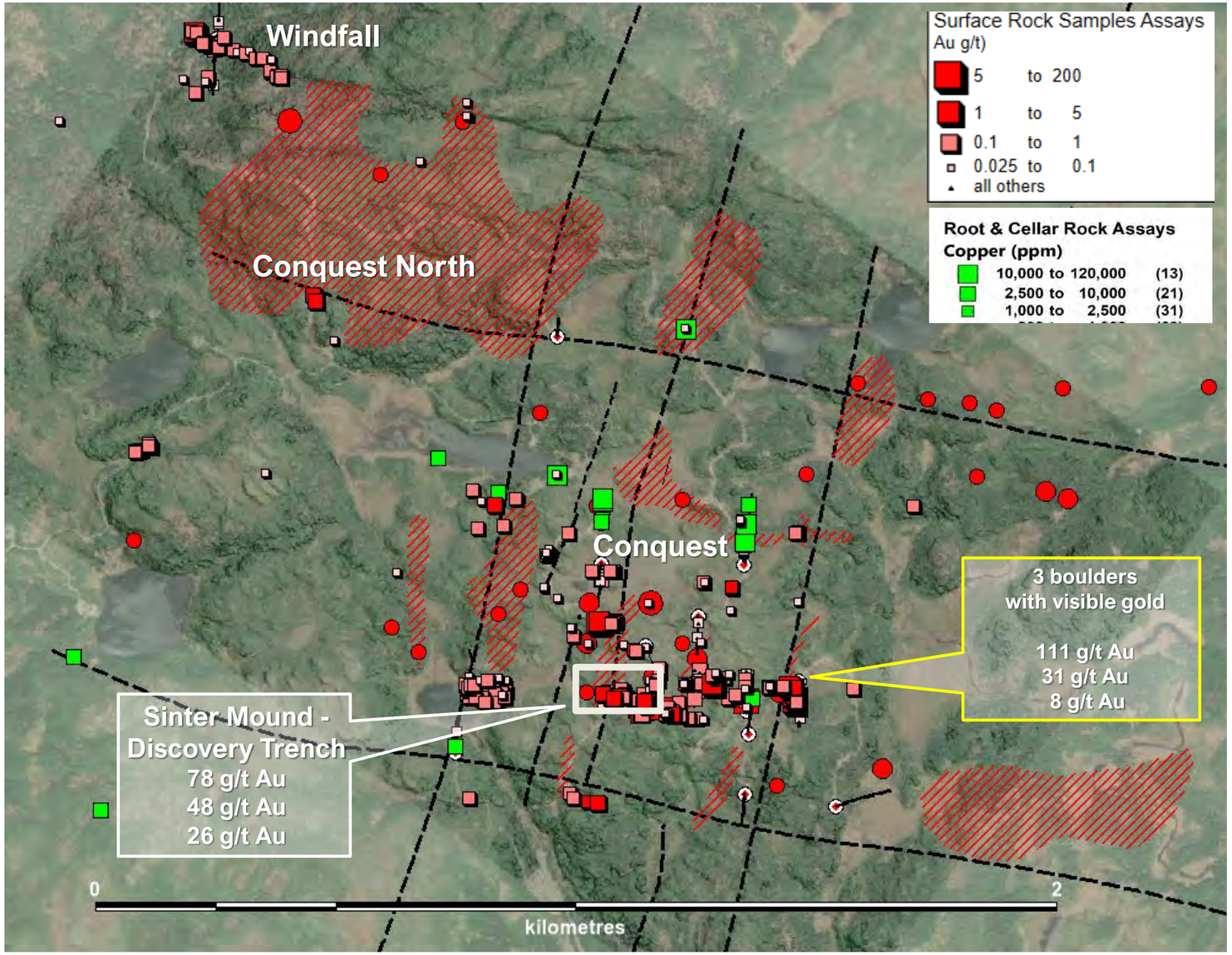
GOLD-SILVER-TELLURIUM-COPPER

- Gold was discovered at the Conquest Zone, Root & Cellar by a local prospector in a hand dug trench in 2012
- **Northern Shield is the first company to conduct methodical exploration on the property**
- Hosts 5 gold-silver +/- tellurium, occurrences over a large area that overprint a copper porphyry-type system
- Mineralization is hosted in a distinct, bi-modal volcanic complex
- The Conquest Zone has been the focus of exploration and has the largest foot-print
  - ➢ **Conquest has all the ingredients to form a giant and high-grade epithermal gold systems**



CONQUEST ZONE – LARGE AREAL EXTENT

- Gold mineralization and soil anomalies over an area measuring approximately 4 sq km.
- Gold overlies deep-seated IP chargeability anomalies and magnetic lows controlled by two principal structural sets.
- Much of the gold found on surface is “leakage” from a deeper source
- Abundant visible gold in southern Conquest
- Gold-bearing boulders and gold anomalous till samples indicate more gold to be found on surface.
- Copper mineralization intersected in two drill-holes

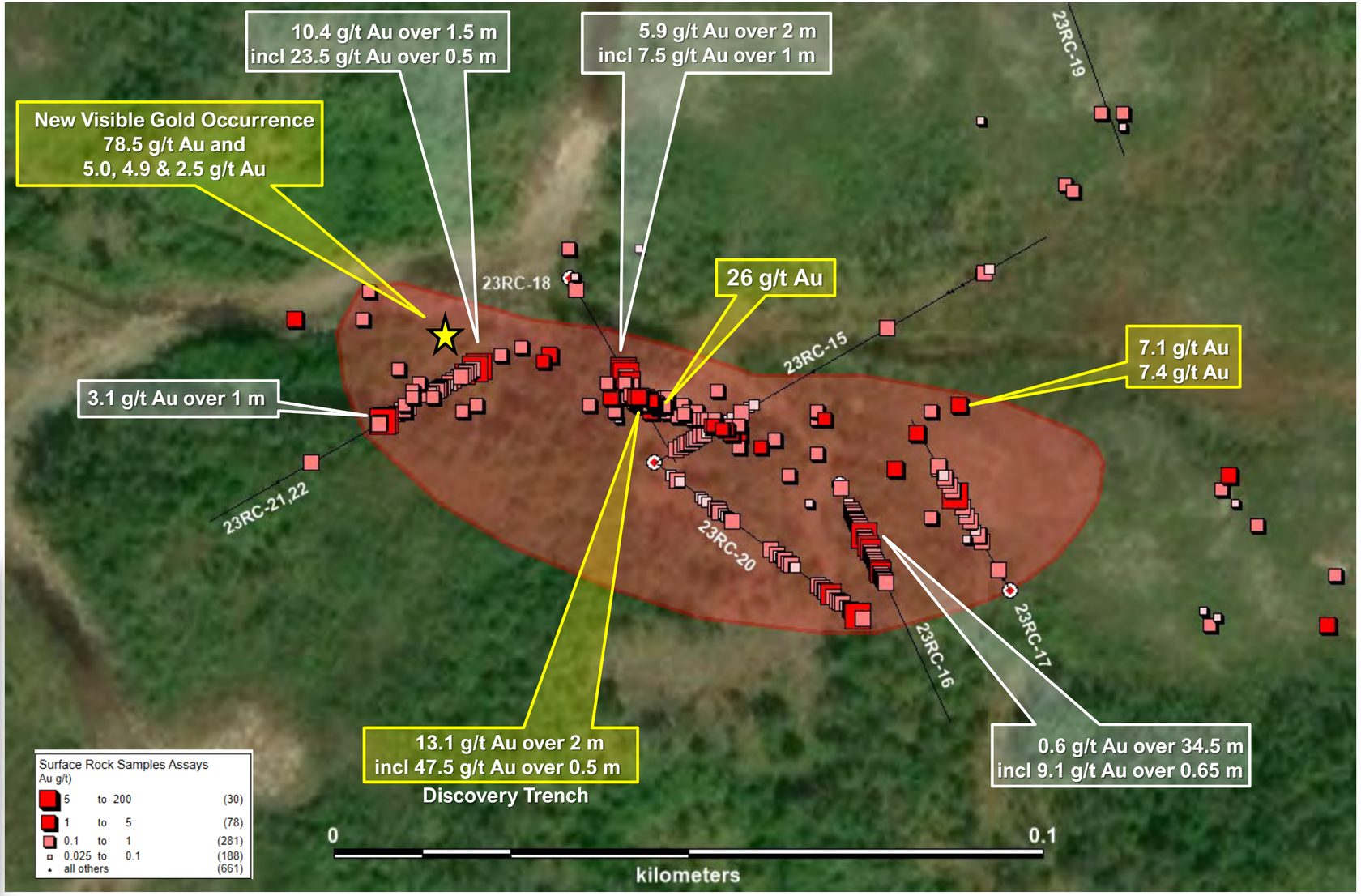


DISCOVERY TRENCH AREA

TIP OF THE ICEBERG?

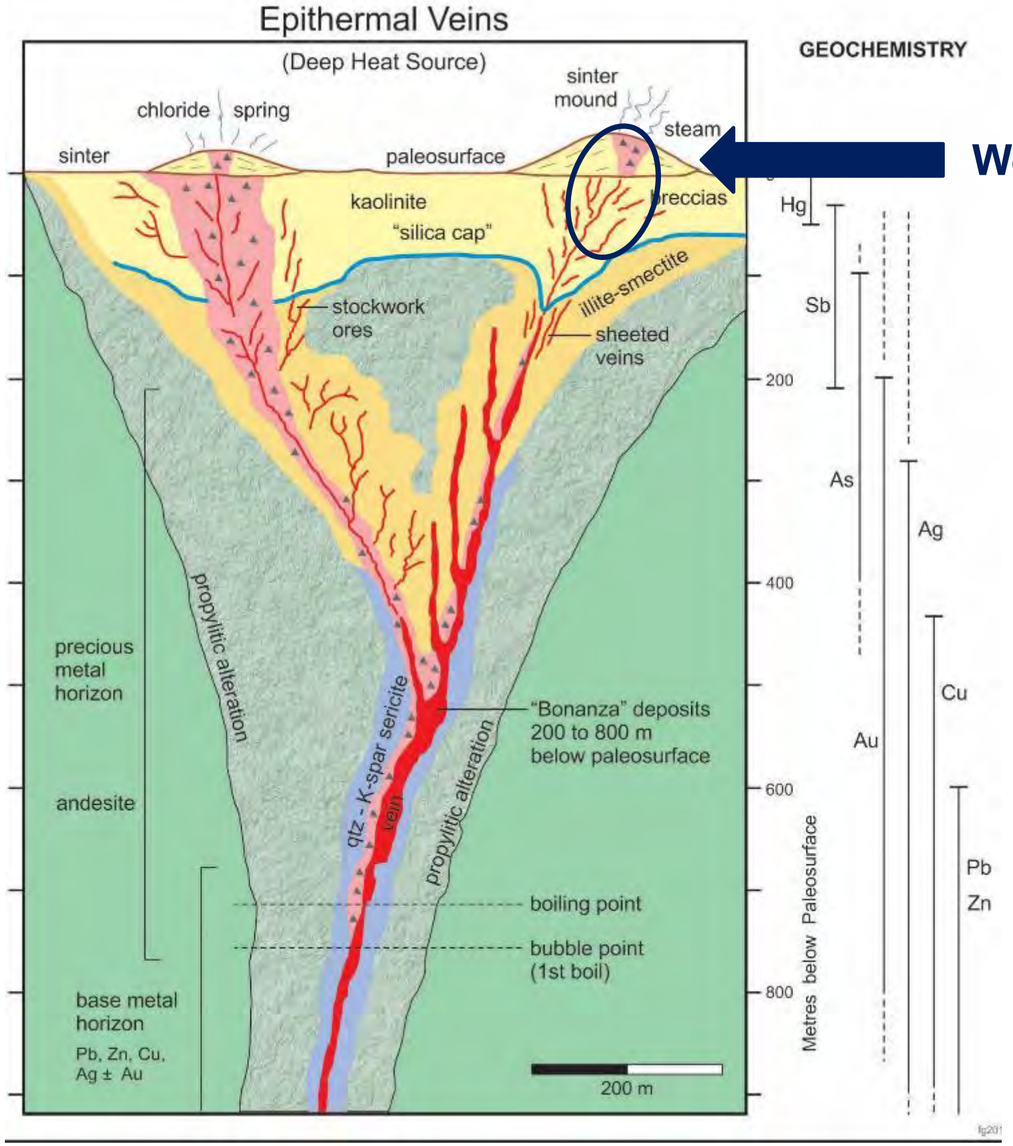
- 7 of 8 drill holes completed in 2023 intersected gold mineralization hosted in quartz veins and hydrothermal breccias
- Near continuous gold mineralization in area measuring approximately 100 x 35 metres
- Identification of breccias, sinter material and geyser sediments in drill core and outcrop

Five occurrences of visible gold were noted in drill holes 23RC-16, 18 and 21.



Summary of gold results from surface and drill samples in the central Conquest area

INTACT EPITHERMAL GOLD SYSTEM



We are here! *Entire system is intact!*

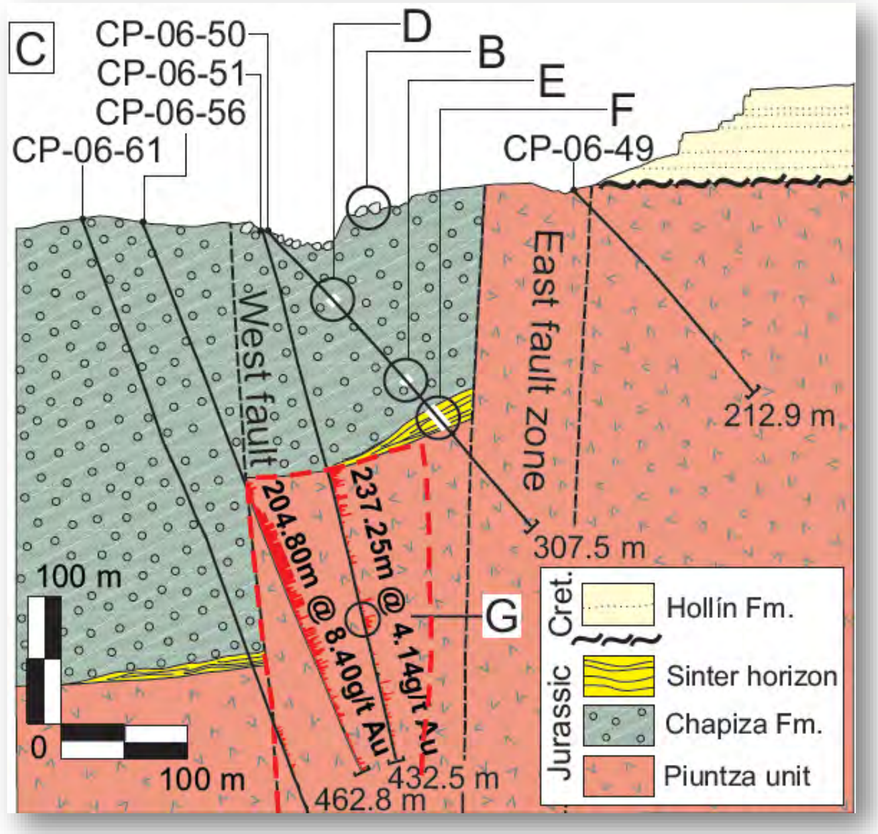
- Evidence from multiple datasets all strongly point to the Discovery Trench area as being the very top of one of the epithermal vein systems in the Conquest Zone.
- The presence of so much gold at these high levels is not typical and suggestive of a very fertile system.
- Higher grades are expected at depth often near where the vein system bifurcates

Hydrothermal breccia with visible gold

Hot-spring sediment (?) (Muddy, siliceous sediment with elevated Hg)

Sinter Fragments (?)

SINTER TERRACES – VECTORS TO GOLD

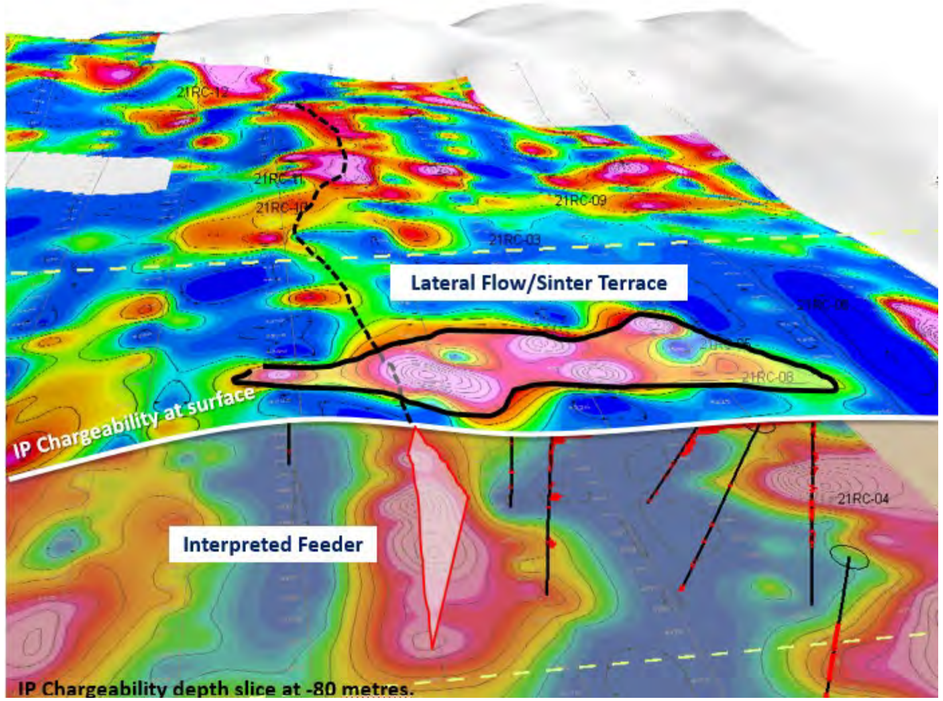


S. Leary et al, 2016 Discovery, Geology, and Origin of the Fruta del Norte Epithermal Gold-Silver Deposit,
Southeastern Ecuador

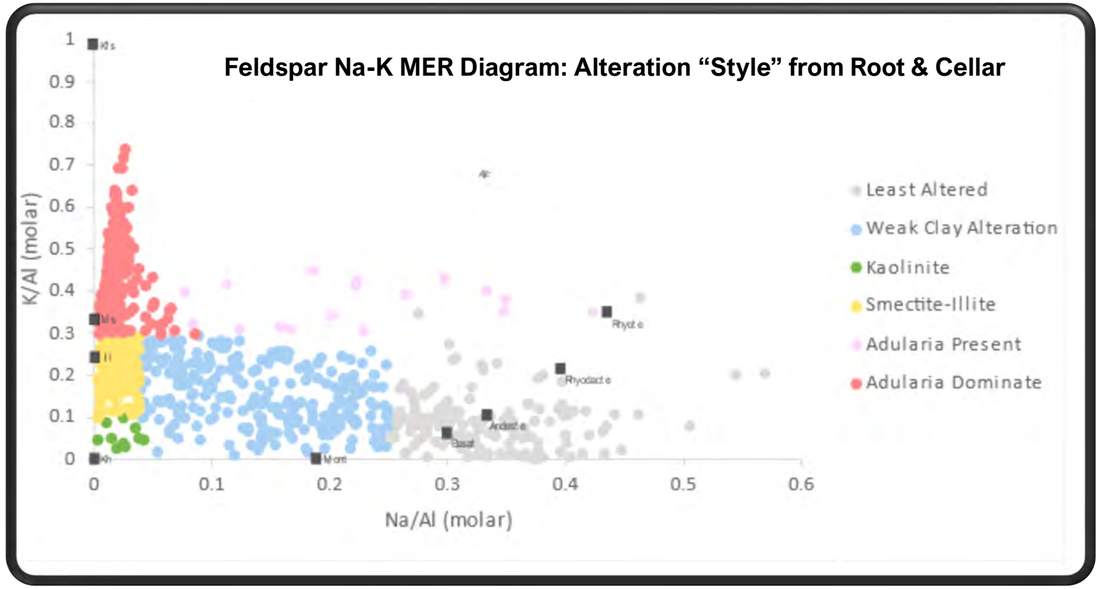
- The Fruta del Norte epithermal gold deposit in Ecuador was a blind system found by recognizing that gold anomalous silica horizons represented leakage from an underlying epithermal system
- The intersection of a sinter horizon provide a clear vector to the tops of a nearby epithermal gold vein system
- The next hole intersected 237m @ 4.1 g/t Au
- **Similarly at Root & Cellar , geology, geochemistry and geophysics have identified a sinter terrace and area of lateral flow that provide a clear vector to the feeder and what we believe are the tops of a major epithermal vein svstem**

Fruta del Norte

Root & Cellar



WAIHI CASE STUDY APPLIED TO ROOT & CELLAR



- Innovative geochemical studies on Root & Cellar data as part of a M.Sc. Thesis confirm the Discovery Trench area has the hydrothermal signature expected of the central to upper portion of an epithermal up-flow zone
- Signatures & patterns are consistent with observations at the Waihi low sulfidation epithermal gold system and the Broadlands-Ohaaki **active** low sulfidation geothermal system in New Zealand
- Root & Cellar geochemical/hydrothermal footprint is very well preserved

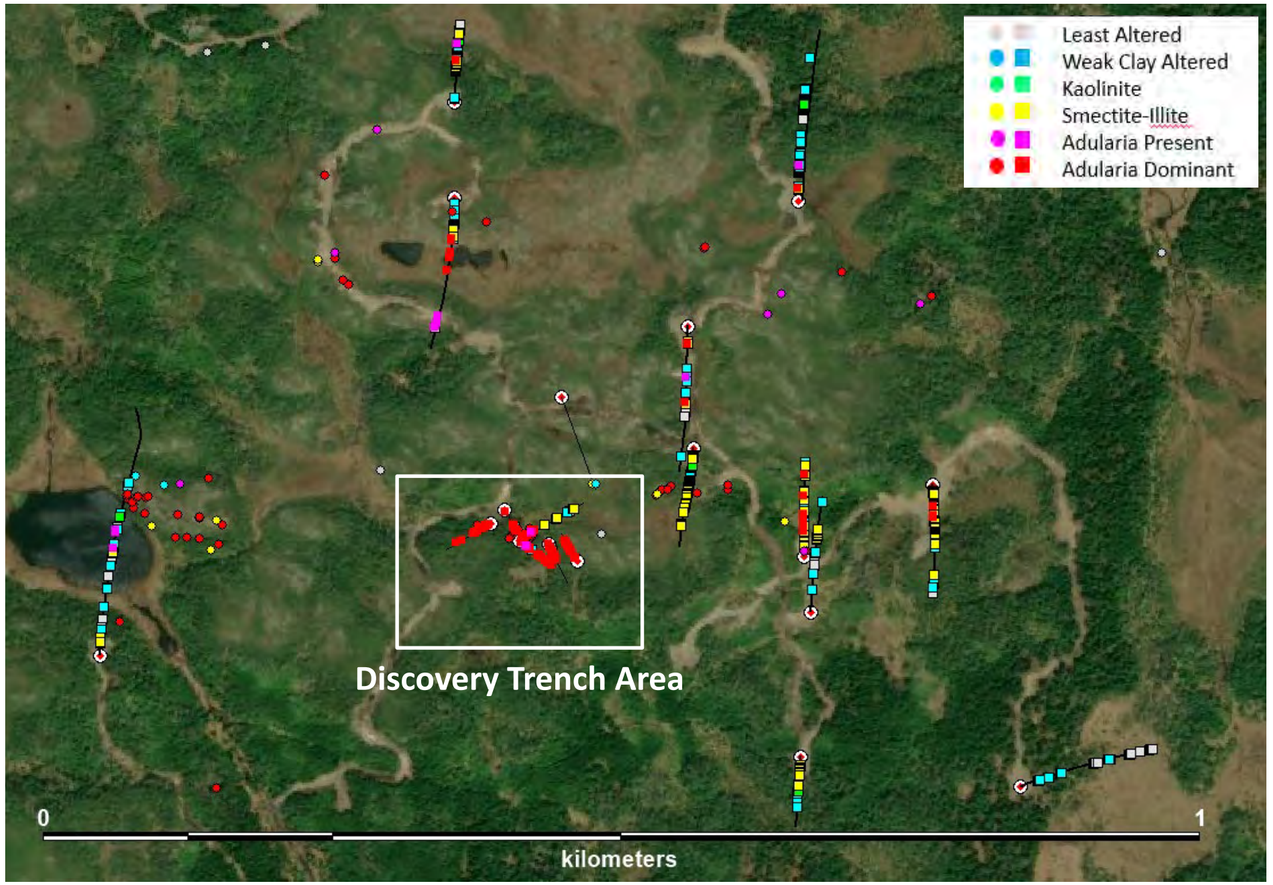
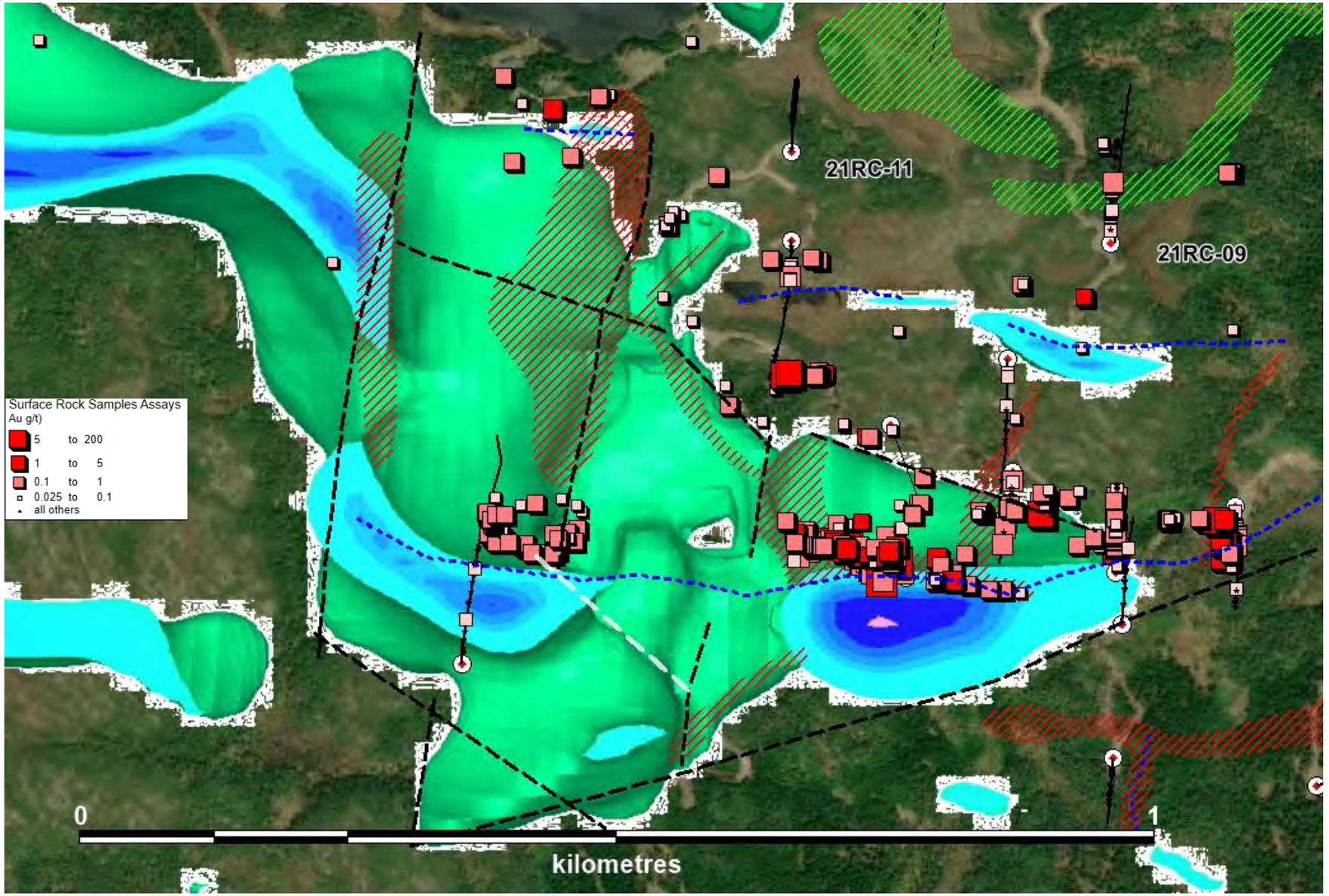


Diagram from Kaine Johnson, M.Sc. Student, Memorial University of Newfoundland

MAGNETIC LOW SHELL MODEL - PLAN VIEW



- Geological, geochemical and mineralogical vectors are all supported by a very compelling geophysical target
- Image shows the plan view of a 3D shell model of a magnetic low (turquoise and blue shading) that underlies a portion of the Conquest Zone
- Note the close correlation between surface gold mineralization to the underlying 3D magnetic low shell model

MAGNETIC LOW SHELL MODEL - SECTIONS

“Tip of The Iceberg”

2023 Drilling/Discovery Trench Area

Hydrothermal vent breccia and sinter mound

Abundant visible gold with up **to 78 g/t Au** on surface

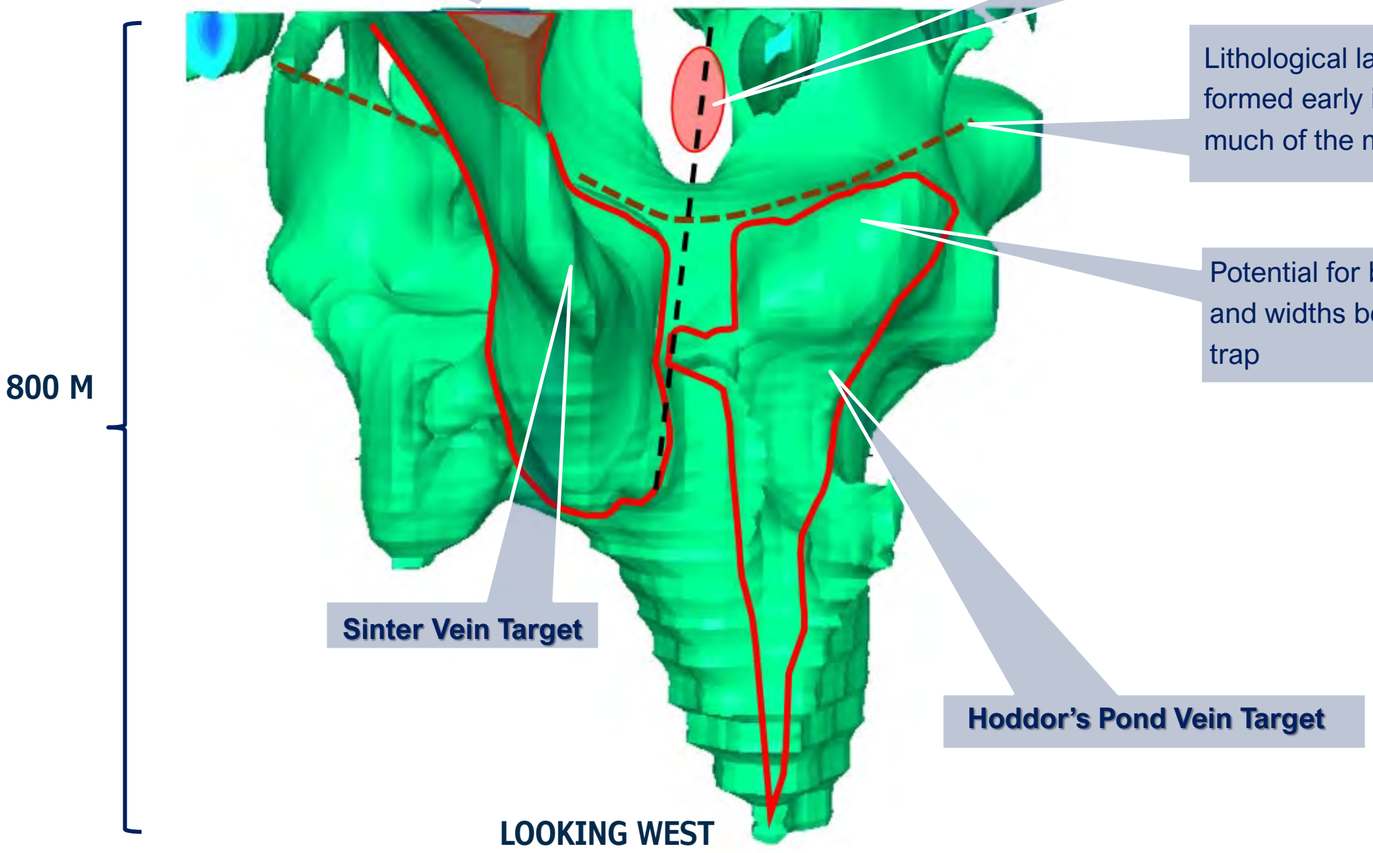
Drill intersections include **10.4 g/t Au over 1.5 m** and **0.6 g/t Au over 34m**

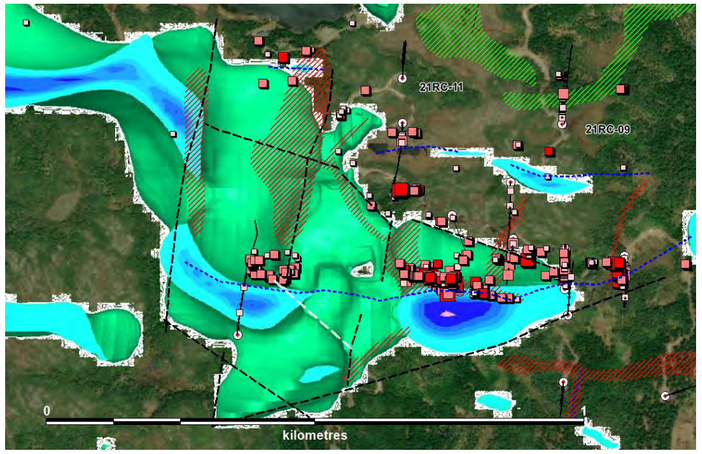
2021 Drilling

Mostly hydrothermal mineralization “leaking” up structure from main vein at depth

Lithological layer that is believed to have formed early in mineralizing event trapping much of the mineralization below it.

Potential for bonanza grades and widths below lithological trap





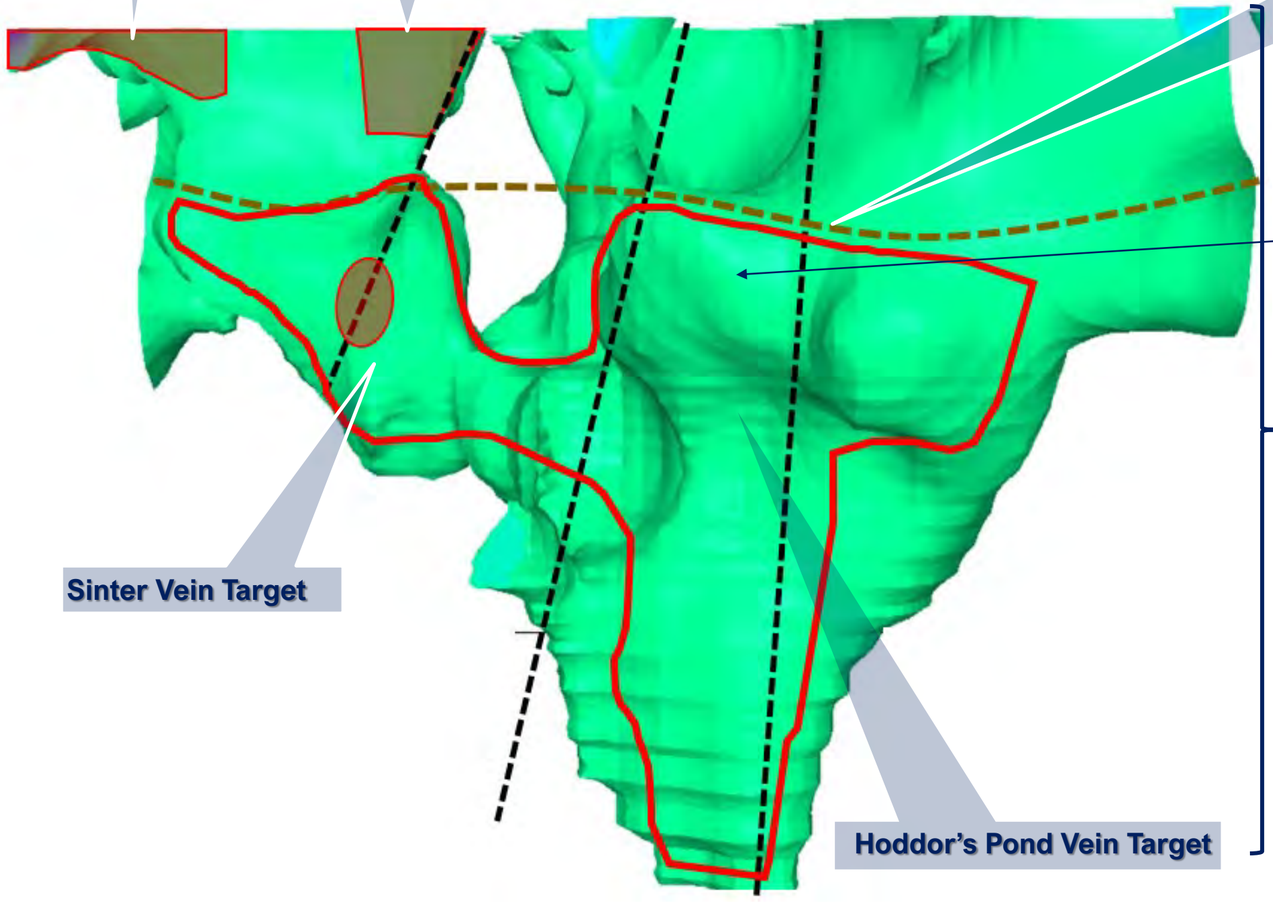
MAGNETIC LOW SHELL MODEL - SECTIONS

2021 Drilling

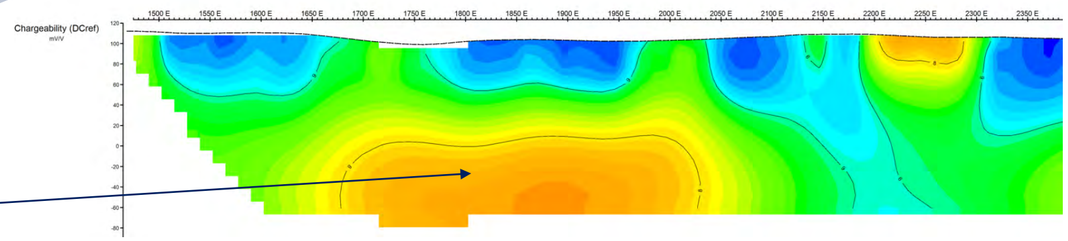
2023 Drilling/Discovery Trench Area

Potential for bonanza grades and widths below lithological trap. This is supported by a large flat-lying IP chargeability anomaly in Hoddor's Pond area.

LOOKING SOUTH

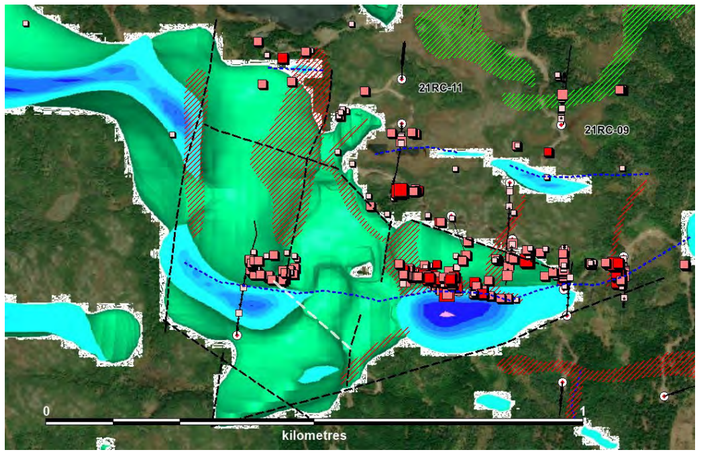


800 M



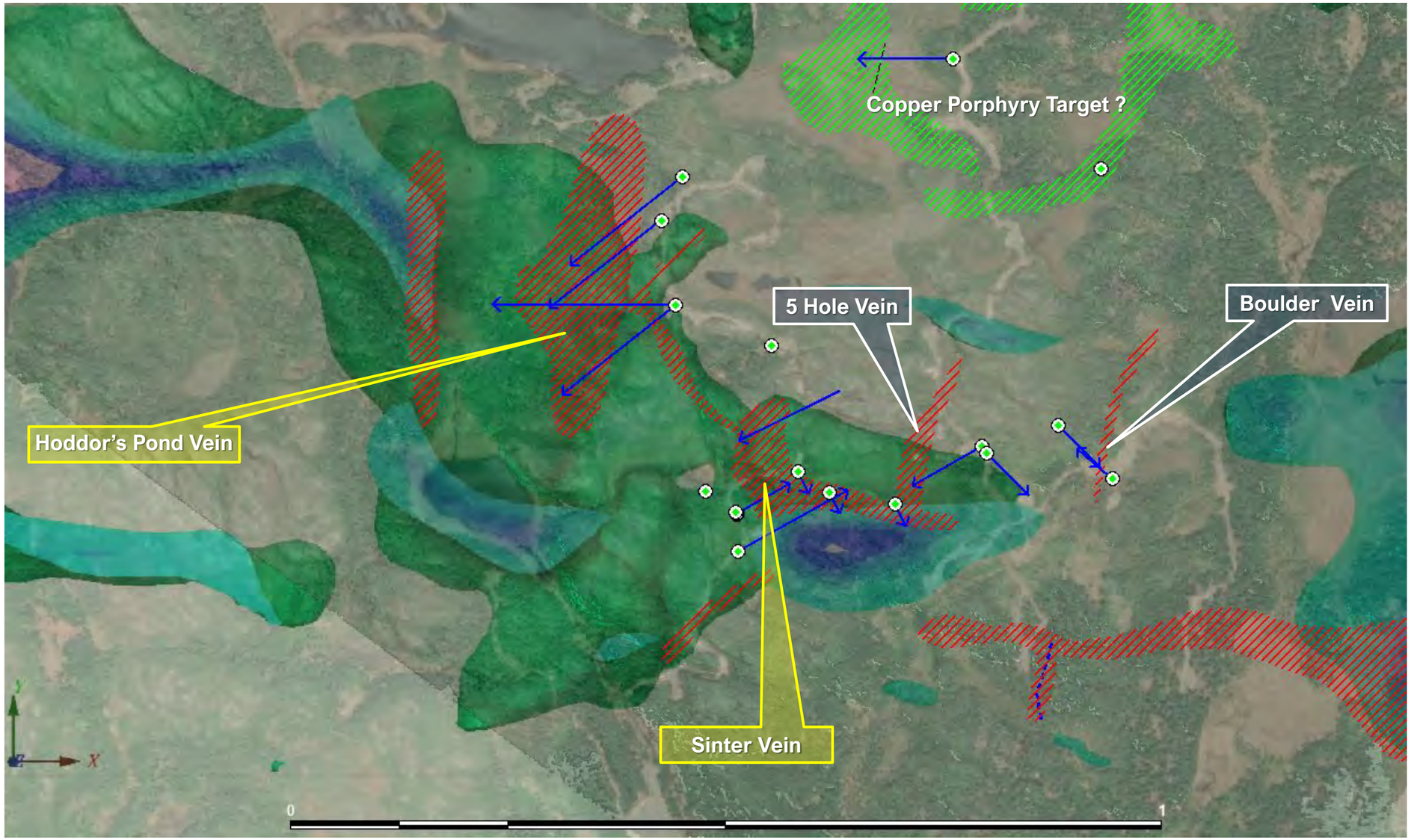
Sinter Vein Target

Hoddor's Pond Vein Target



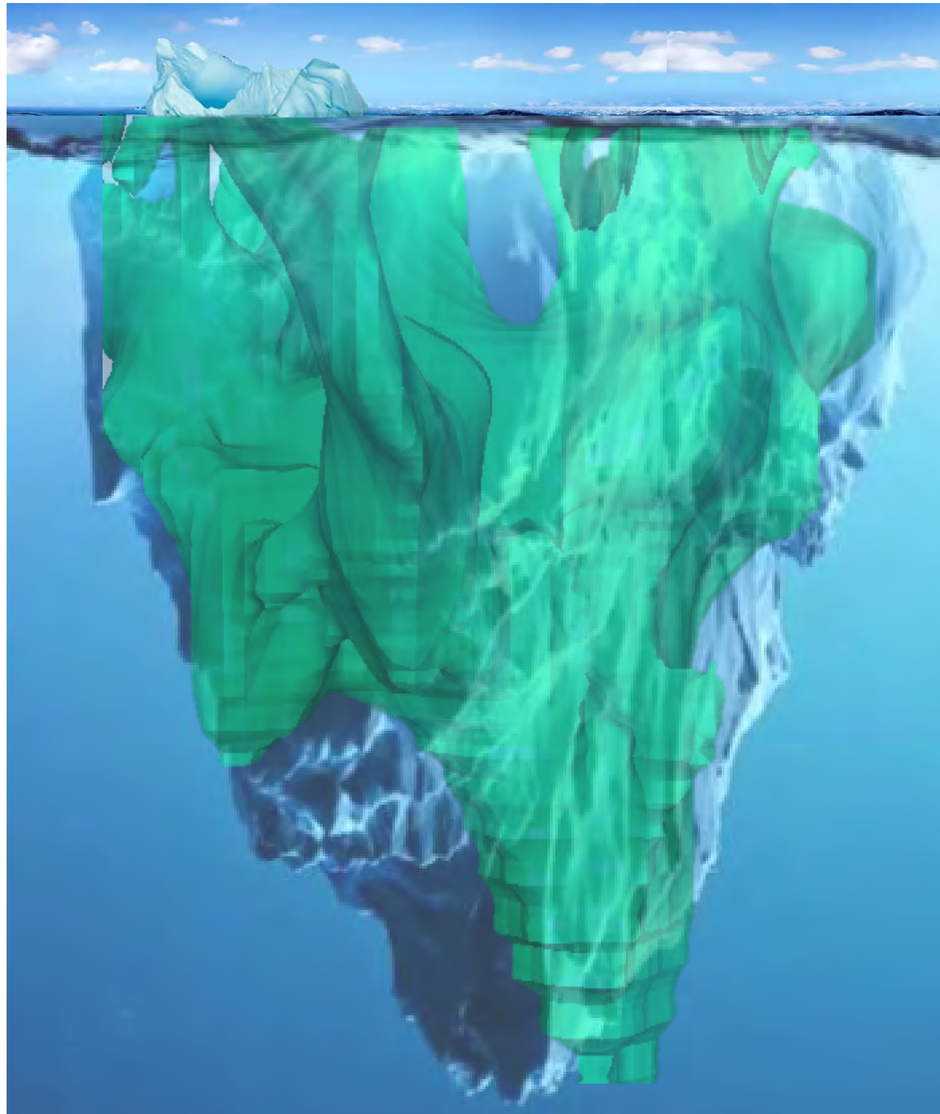
PLANNED DRILLING

- 8 to 15 drill-holes
- 2,500 – 3000m
- Focused on Conquest Zone



Low Exploration Costs
Due to proximity to infrastructure and ease of access, all in drilling costs are estimated at **$200/meter!**

THE INVESTMENT OPPORTUNITY



High-grade
- With grab samples up to 111 g/t gold, 1,395 g/t silver, 700 ppm tellurium, and 10.5% copper the high grades are apparent.

Large Footprint
- A select few of low sulphidation gold deposits are also associated with very large tonnages. A very comprehensive exploration model shows that Root & Cellar could host a giant epithermal gold systems.

Large Depth Extent
- Modelling shows system could extend to 800m depth. The system is intact and well preserved

Confidence
- Multiple datasets all point to the top of one of the veins…..the “tip of the iceberg”

Ownership
- Northern Shield owns a 100% interest in Root & Cellar.

Location
- Located in Newfoundland, Canada and minutes from a paved highway and deep-water port.

We believe exploration opportunities don’t get much better than this

CORPORATE

MANAGEMENT

Ian C. Bliss

President, CEO

Samuel Legg

CFO

Christine Vaillancourt

Chief Geologist

CAPITAL STRUCTURE

Common Shares O/S	93.8M
Fully Diluted	118.2M
Stock Price	C$0.04
Market Capitalization	C$4M
Treasury	C$200,00
Debt	Nil

DIRECTORS

Ian Bliss

Northern Shield
Founder

Russ Richards

Private wealth manager
in Atlanta, Georgia

Peter Dimmell

Past President of PDAC
Fellow of Geoscientists Canada

Dr. Scott Jobin-Bevans

Past President of PDAC;
founder and director
of CCIC.

CONTACT NORTHERN SHIELD

NORTHERN-SHIELD.COM

150 Elgin Street

Suite 1000

Ottawa, ON

K2P 1L4

613-232-0459

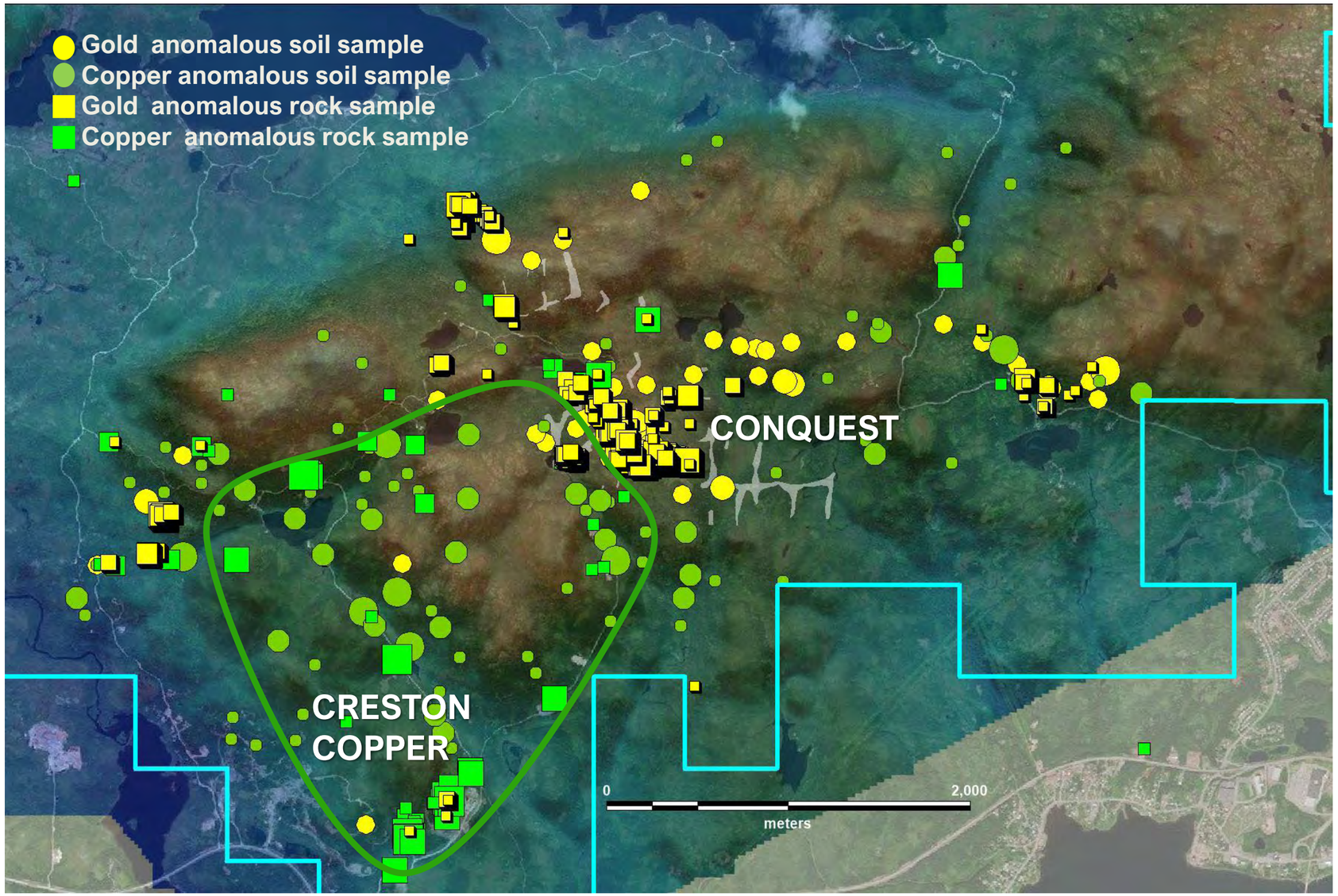
ibliss@northern-shield.com

@NorthernShield

ROOT & CELLAR COPPER

"Although much of the exploration at Root & Cellar has focused on the gold, the copper porphyry potential is very real."

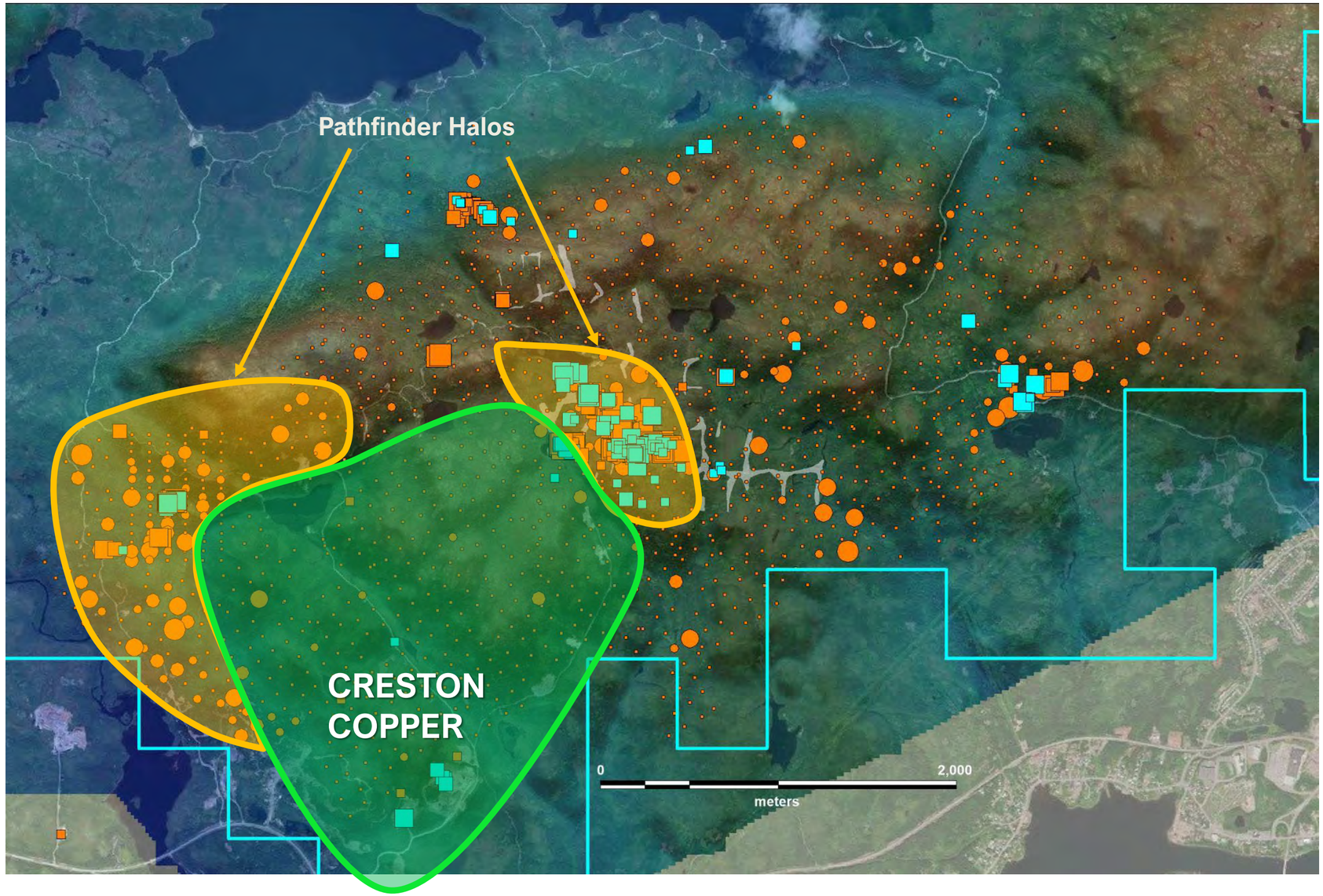
- 72 samples collected from surface sampling at Root & Cellar assay > 0.1% Cu with 13 > 1% and, a high of 10.5% Cu
- The best copper mineralization has been found at Creston, 2 km southwest of Conquest
- Hosted in a vast phreatomagmatic/vent breccia complex with associated hydrothermal alteration
- Mineralogy and setting is indicative of the upper levels of a copper porphyry system



ROOT & CELLAR COPPER PATHFINDERS

- Mineral zonation both in rock and soil anomalies exhibit a typical copper porphyry signature*.
- Notably As and Sb form “shoulder” anomalies where peak values for these elements are on the periphery to the copper porphyry and devoid immediately above it.

Intense propylitic alteration (epidote-chlorite) corresponding to the shoulder anomalies



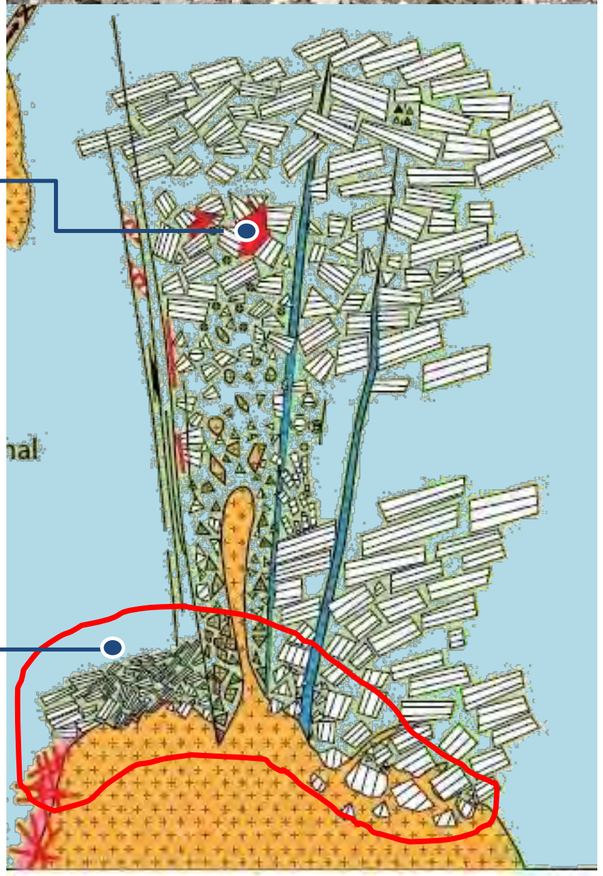
*Economic Geology v 115
Exploration Targeting in Porphyry Cu Systems Using Propylitic Mineral Chemistry:
A Case Study of the El Teniente Deposit, Chile
Jamie J. Wilkinson et al

ROOT & CELLAR COPPER DEPOSIT MODEL

Outcrops of vent breccias and magmatic hydrothermal breccias exposed in a series of quarries

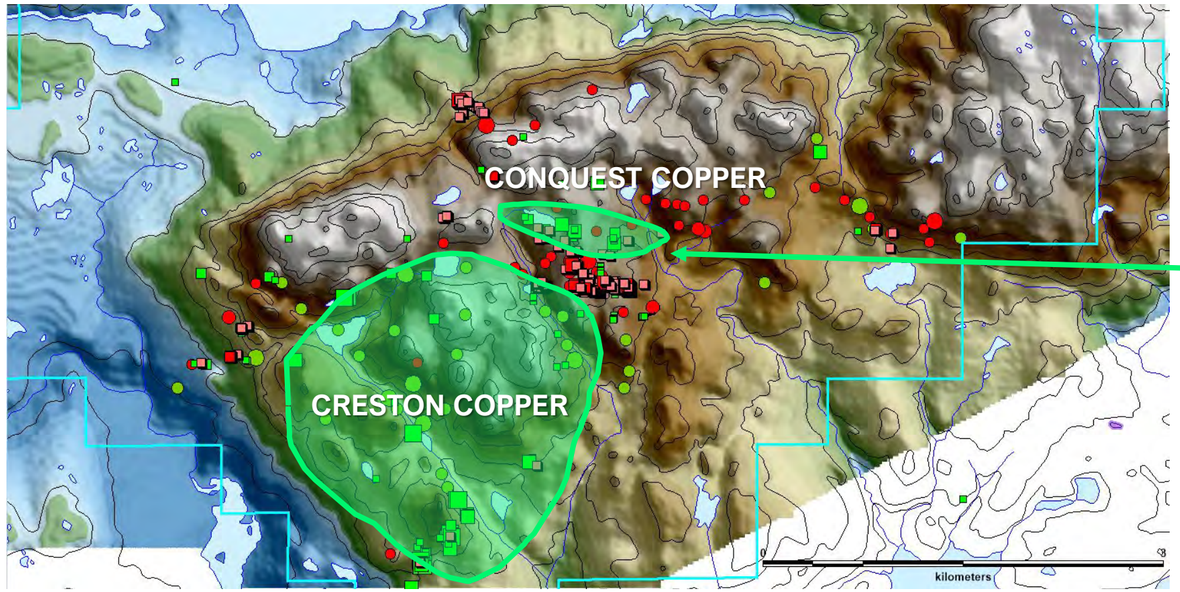
These types of breccias typically form from the explosive interaction of groundwater and the hot magma that formed the intrusion.

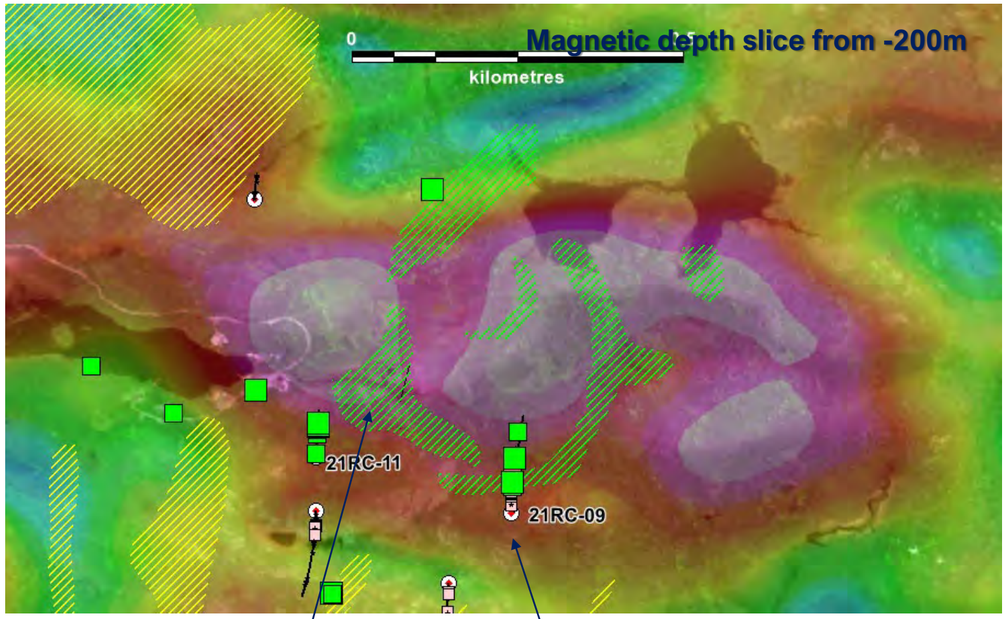
The high-grade copper found to date in the breccias exposed in the quarry quarries are likely the result of mineralized fluids filtering up through voids in the breccias.



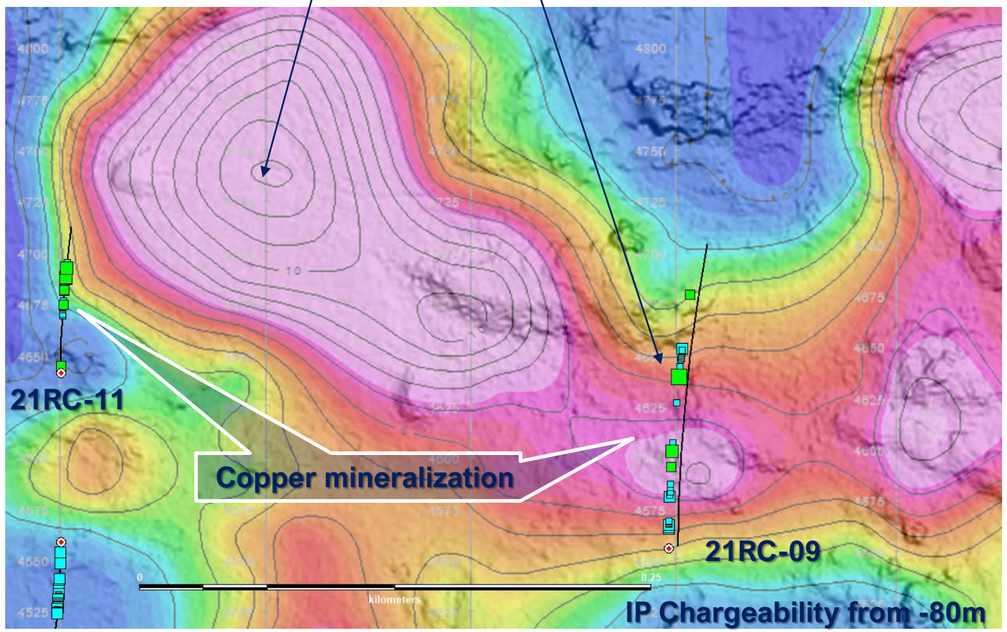
It is at the top of such an intrusion where the primary copper mineralization would be expected

CONQUEST COPPER





Chalcopyrite-bearing “B” vein from DDH 21RC-11



TELLURIUM

- High grade tellurium has been found at Drop Zone and Creston with extensive moderate grade in surface samples and drill core from Windfall and the Conquest Zone

Quartz veins from Drop Zone hosting hessite (silver telluride). Sample assays up to 45 g/t Au, 1,365 g/t Ag and 700 ppm Te.

Molybdenite vein from Creston Copper assaying 1.1% Mo and associated with high grade tellurium (330 ppm) and weakly elevated copper and silver.