



SINTER TO CENTER AND VECTORS TO GOLD

**Why Root & Cellar's Findings Are
Just the Beginning**

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

Recent discoveries in **NEWFOUNDLAND**, show that the province does indeed host world class deposits. Northern Shield has focussed its attention on an underexplored tract of land on the Burin Peninsula.

Our Approach

While many view greenfield exploration as a risk, we also see it as an opportunity to discover a Tier 1 asset, near surface, and at relatively low cost. We implement a **model driven** approach in our exploration to reduce any risk for ourselves, our shareholders and the environment.

This approach has led to partnerships with majors:

2005–2008	Implats Option on Highbank Lake Layered Intrusion – PGE
2007-2012	Hudbay Strategic Investment regarding Wabassi VMS Camp Discovery, northern Ontario
2012-2013	Implats Option on Idefix Ni-Cu-PGE project northern Quebec
2013	Teck Strategic Investment regarding Iqertoq Ni-Cu discovery Greenland
2016-2017	South32 Option on Huckleberry Ni-Cu-PGE project northern Quebec

Our Asset

Root & Cellar hosts high grade epithermal gold occurrences associated with significant tellurium and copper

Our Vision

After further significant advancements at the Root & Cellar Property, it is well positioned to become the next mining focal point on the Island.

THE SNOWBALL EFFECT IN EXPLORATION

“In the early stages of greenfield exploration there are often more questions than answers and there is frustration in not understanding the geology and model in its entirety. Knowing that one day you will look back with hindsight and say, “that was obvious.”

There was next to no background data for Root & Cellar when we started, there wasn't even a regional magnetic map. Yet through diligent, detailed and innovative analysis, a lot of little things have been gleaned over the years that have added up and created a robust and confident exploration model. Each individual concept on its own may not seem overly important but collectively they have a significant impact.

Specifically, we have multiple datasets all pointing in the same direction: geochemistry, pathfinders, textures, geology, alteration and geophysics all provide a clear vector to the tops of one of vein systems.

We have reached that stage where new knowledge and understanding of the project is exponential. The more we know, the more we learn.

There is a name for that phenomenon: its called the snowball effect. The snowball effect at Root & Cellar has provided a lot of momentum and confidence in our exploration mode as we move towards the next phase of drilling.”

- Ian Bliss, President and CEO, Northern Shield



NEWFOUNDLAND

- Low Sulphidation – Gold
- Intermediate Sulphidation - Gold
- High Sulphidation – Gold
- Copper Porphyry

Root & Cellar



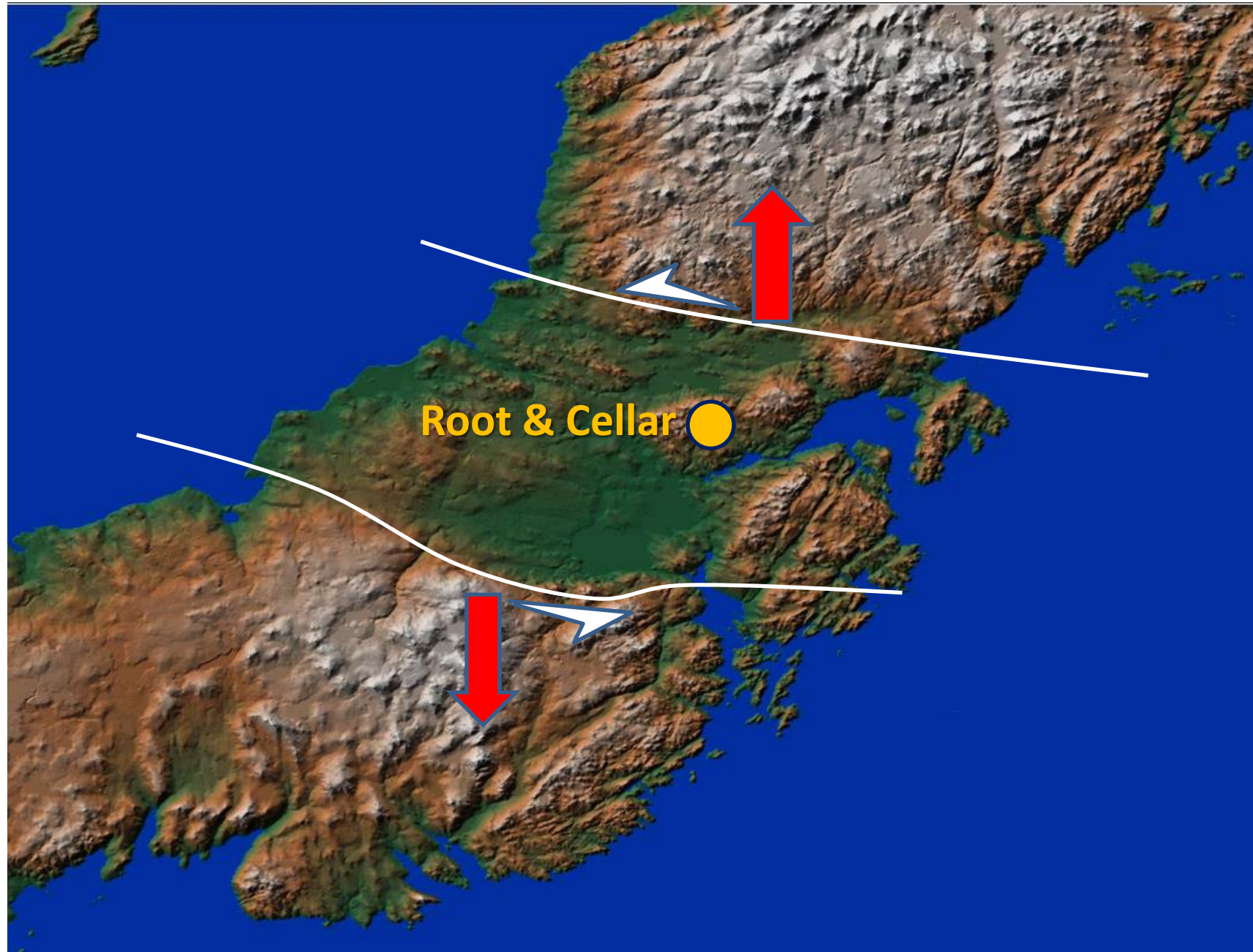
- Located within the Avalon Terrane that hosts the 4 M Oz Haile Gold deposit in North Carolina and is broadly similar to B.C.'s Golden Triangle that hosts Tier1 gold and copper assets. (e.g Brucejack, KSM).
- Whereas BC's Golden Triangle has been explored and mined for well over a century, the Avalon has seen only a few decades at best.
- Root & Cellar has seen no exploration until Northern Shield optioned the property from a local prospector.

THE BURIN PENINSULA AND MARYSTOWN

IS THIS ELEPHANT COUNTRY?

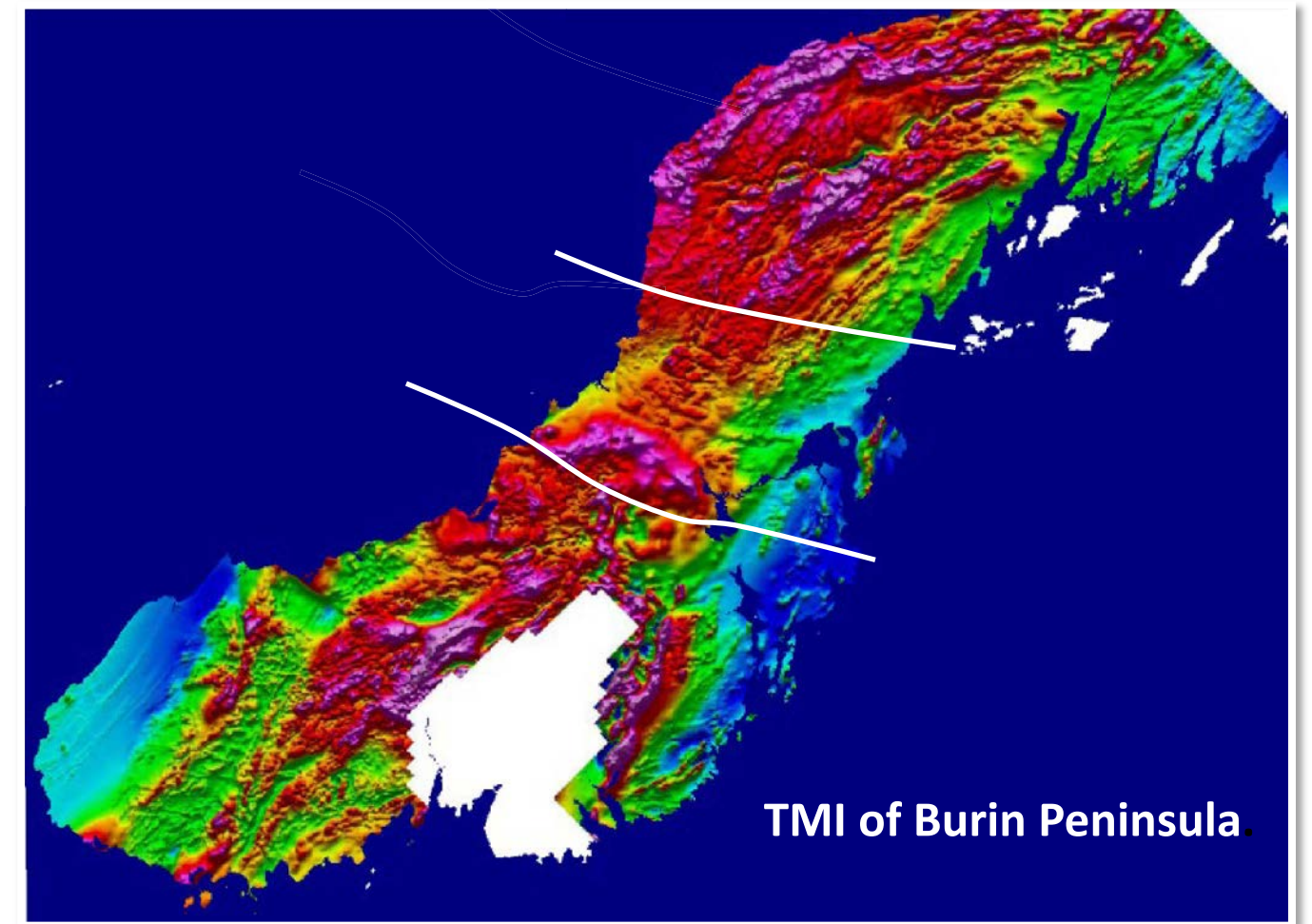


REGIONAL INDICATION OF SOMETHING BIG



DEM of Burin Peninsula. The extensional regime alone makes it stand out as being very different from the rest of the Avalon which was created from collisional events.

- The digital elevation model as well as the magnetic signature of the Burin Peninsula show a distinct break in the vicinity of the Root & Cellar Property
- The cause of this is uncertain, but work by Northern Shield increasingly suggests it may be due to an (oblique) extensional tectonic regime
- Such a zone of extension provides ideal opportunity for large scale epithermal gold-tellurium systems and copper porphyries through enhance magmatic and hydrothermal activity
- **Most importantly**, extension allows for 'boiling windows,' and hence gold precipitation, over much greater depth extent than other mechanisms.

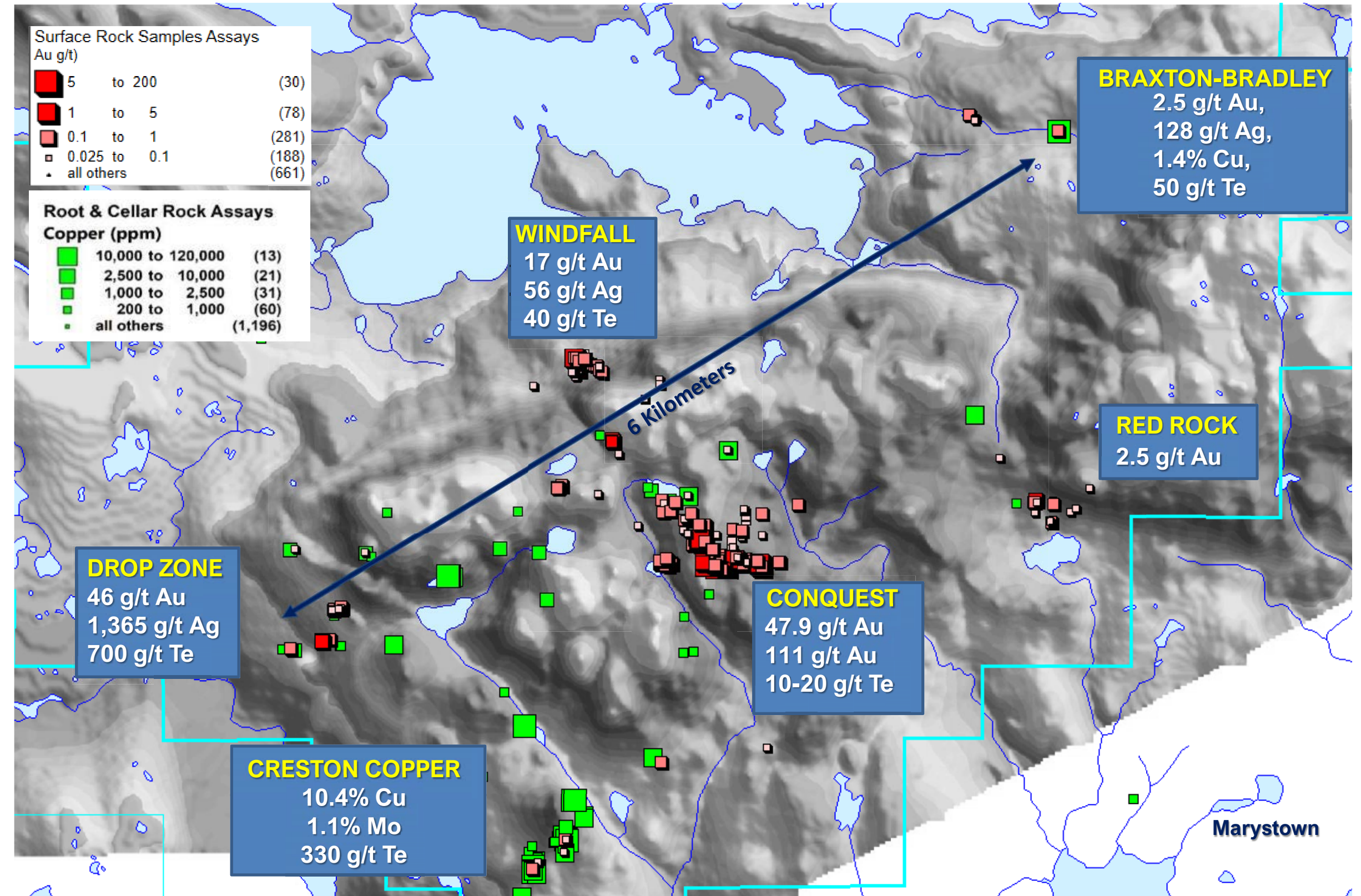


TMI of Burin Peninsula.

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 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**



ROOT & CELLAR - EXECUTIVE SUMMARY

A GIANT AND HIGH-GRADE SYSTEM?

The notion of a large mineralized system must be supported by the geology

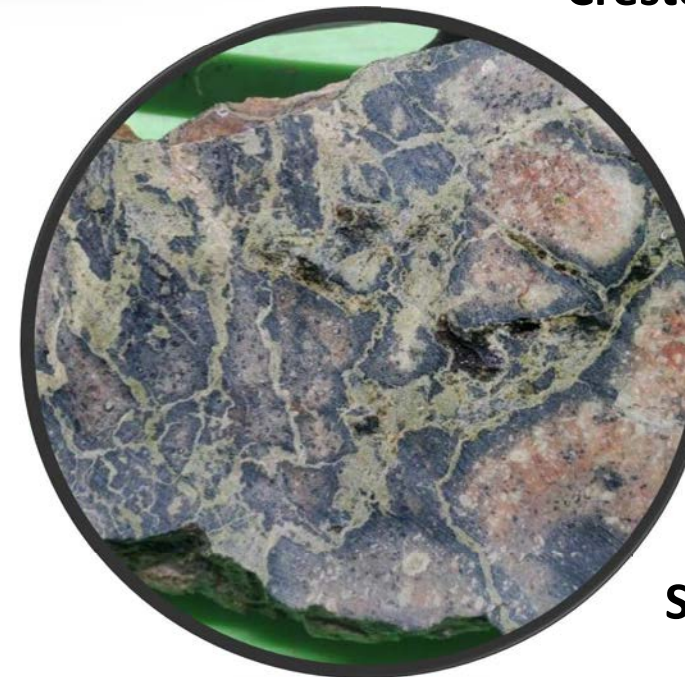
1. **Tellurium** is indicative of alkaline (or sub-alkaline) systems. Such systems are known to produce very large AND high-grade deposits
2. Presence of **copper porphyry-type mineralization**. Many large epithermal gold deposits are in the shadows of copper porphyry mineralization (e.g Brucejack, Fruta del Norte)
3. Large areal extent of pathfinder elements (**As, Sb, Hg, K,**) typically associated with epithermal deposits
4. **Alteration**: large deposits have large, intensive and complex alteration halos
5. Large foot-print of gold-tellurium-silver and copper mineralization
6. Level of erosion: Top of the system has been identified, hence the system is intact
7. Geophysics; large system typically disrupt the physical nature of rocks



Hessite (silver telluride) Drop Zone, Root & Cellar



Chalcopyrite (copper sulphide) Creston, Root & Cellar

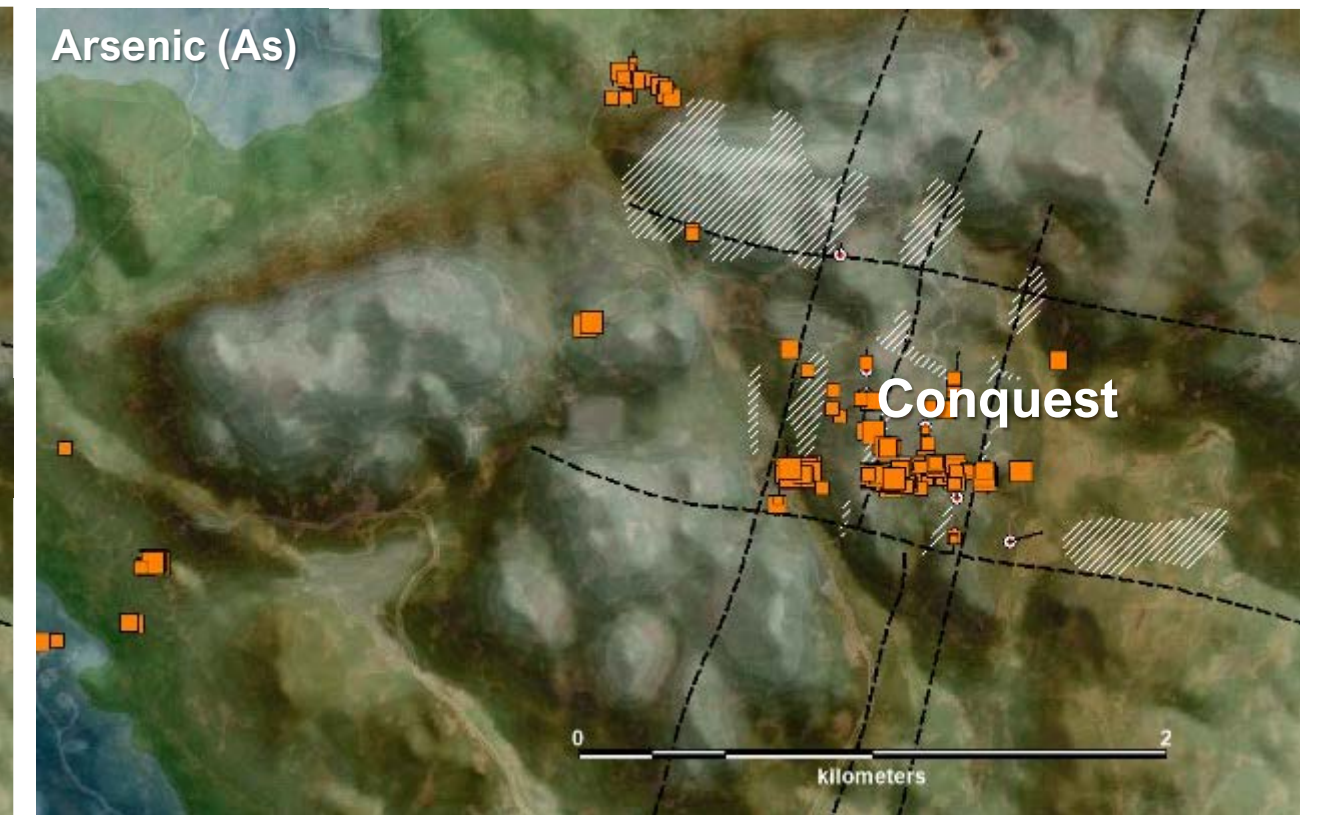
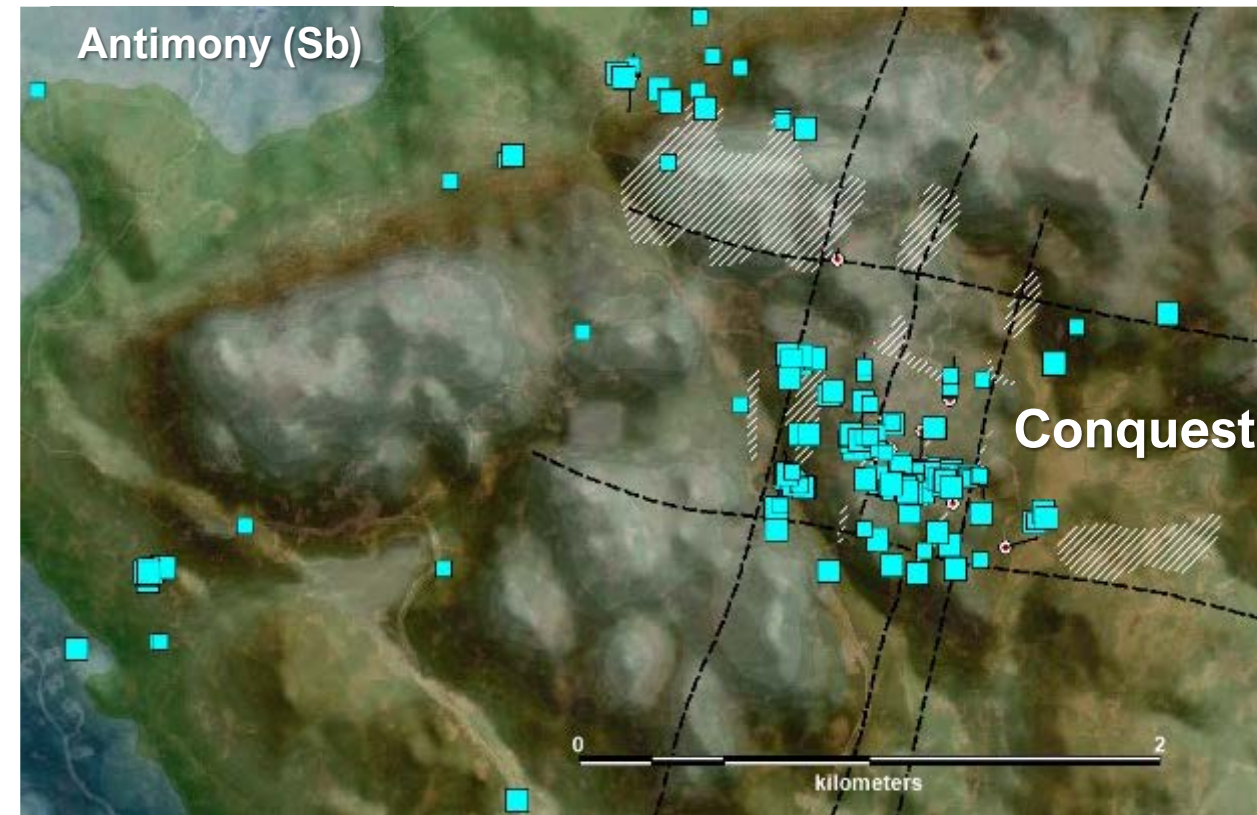


Strongly altered rhyolite

PATHFINDERS AND ALTERATION

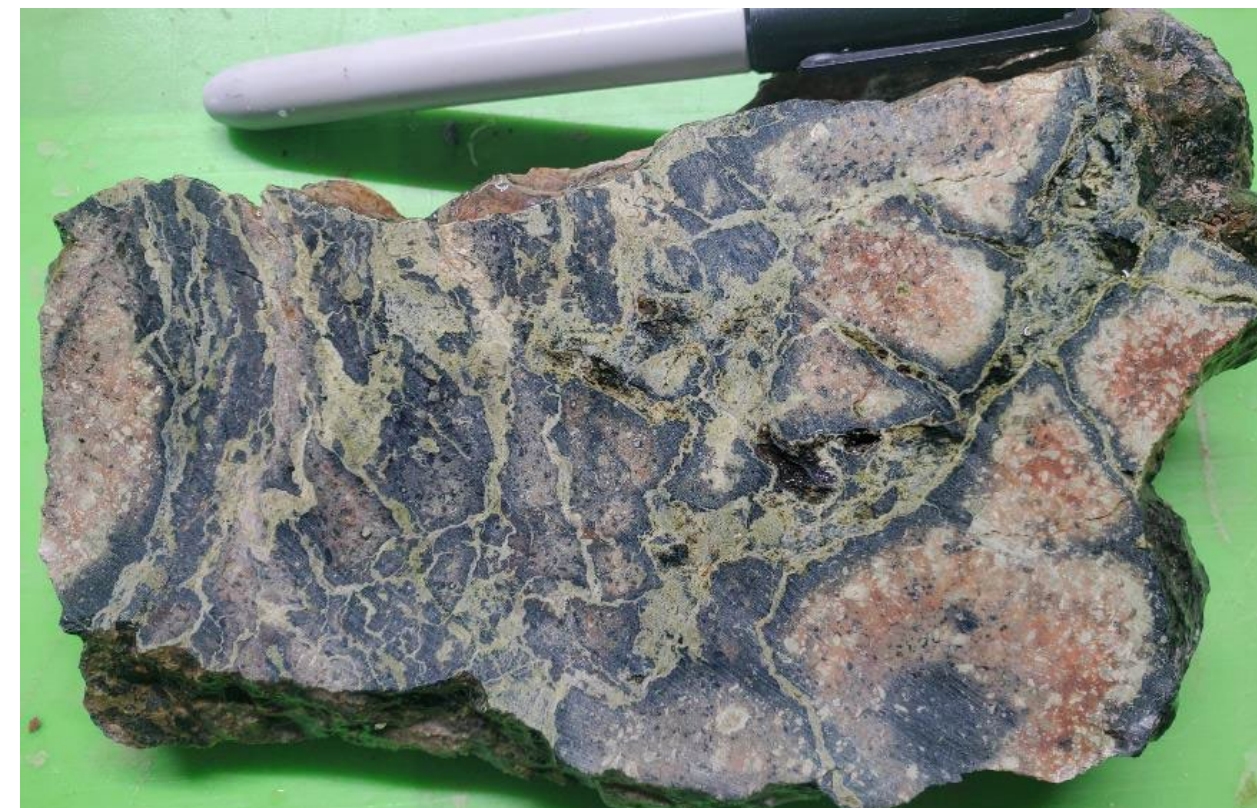
PATHFINDERS

- Excellent correlation with Hg, As, Sb, Te & K
- Classic epithermal pathfinder assemblages



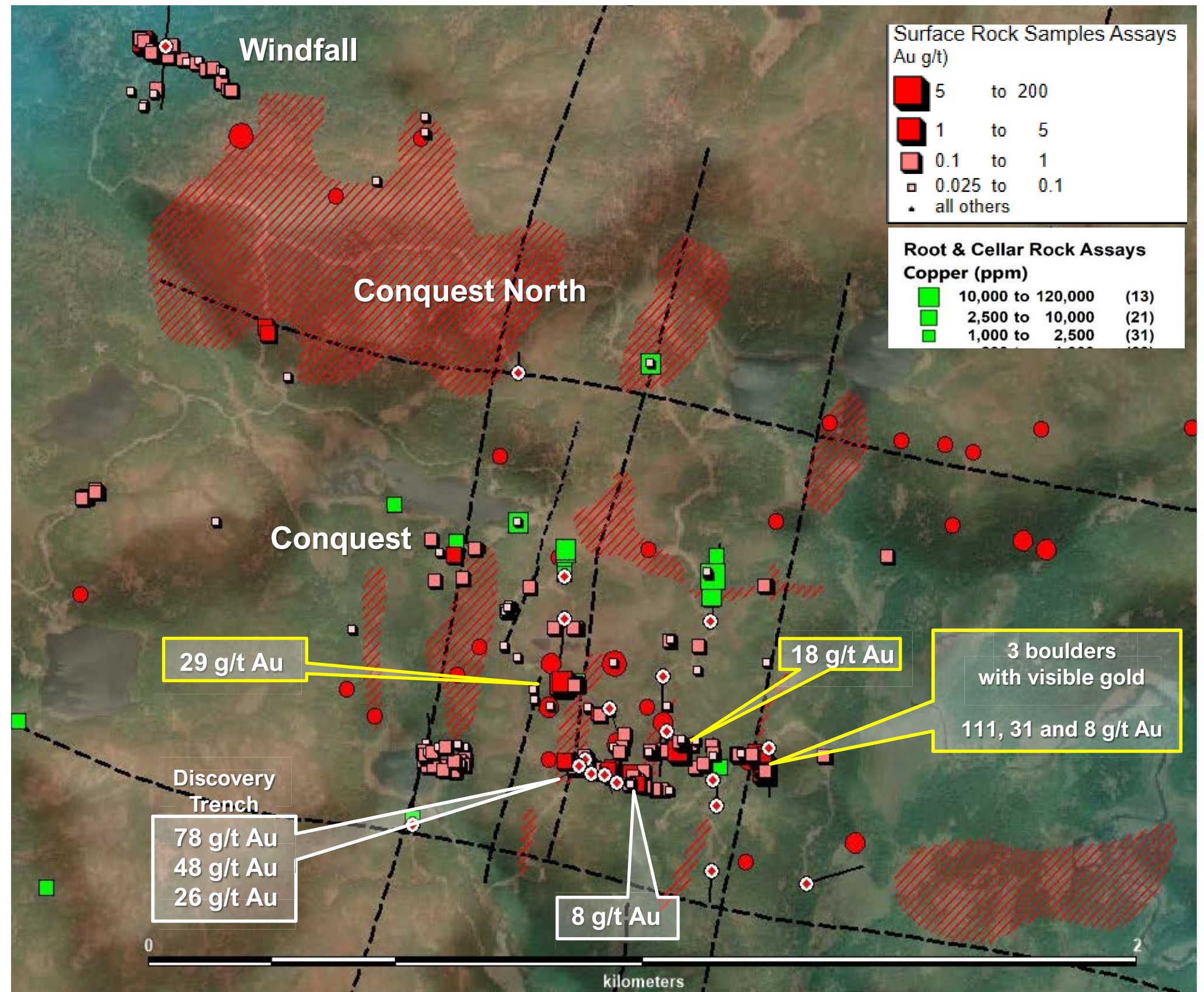
ALTERATION

- Intense, widespread and complex
- Even the original textures and alteration of the least altered rocks are unrecognizable due to overprinting by alteration



CONQUEST ZONE

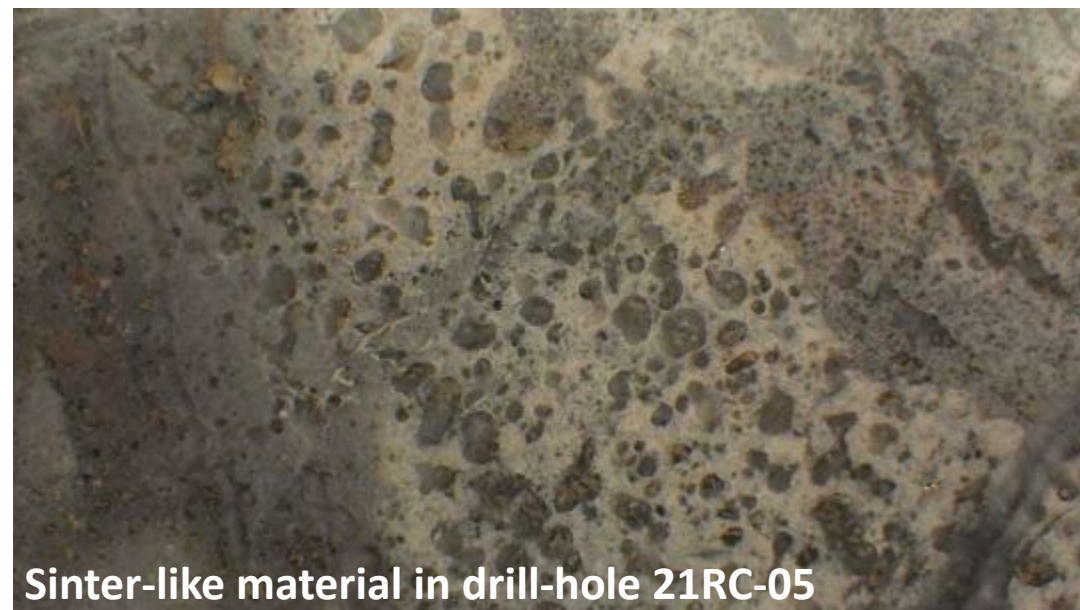
- Gold mineralization and anomalism over an area measuring approximately 2 sq km.
- Gold overlies deep-seated IP chargeability anomalies.
- Gold mineralization is dominantly hosted in a variety of hydrothermal breccias, silica-marcasite/pyrite +/- illite alteration.
- Gold mineralization and geophysics controlled by two principal structural sets.
- Visible gold is also found in quartz veins
- Copper mineralization intersected in two drill-holes



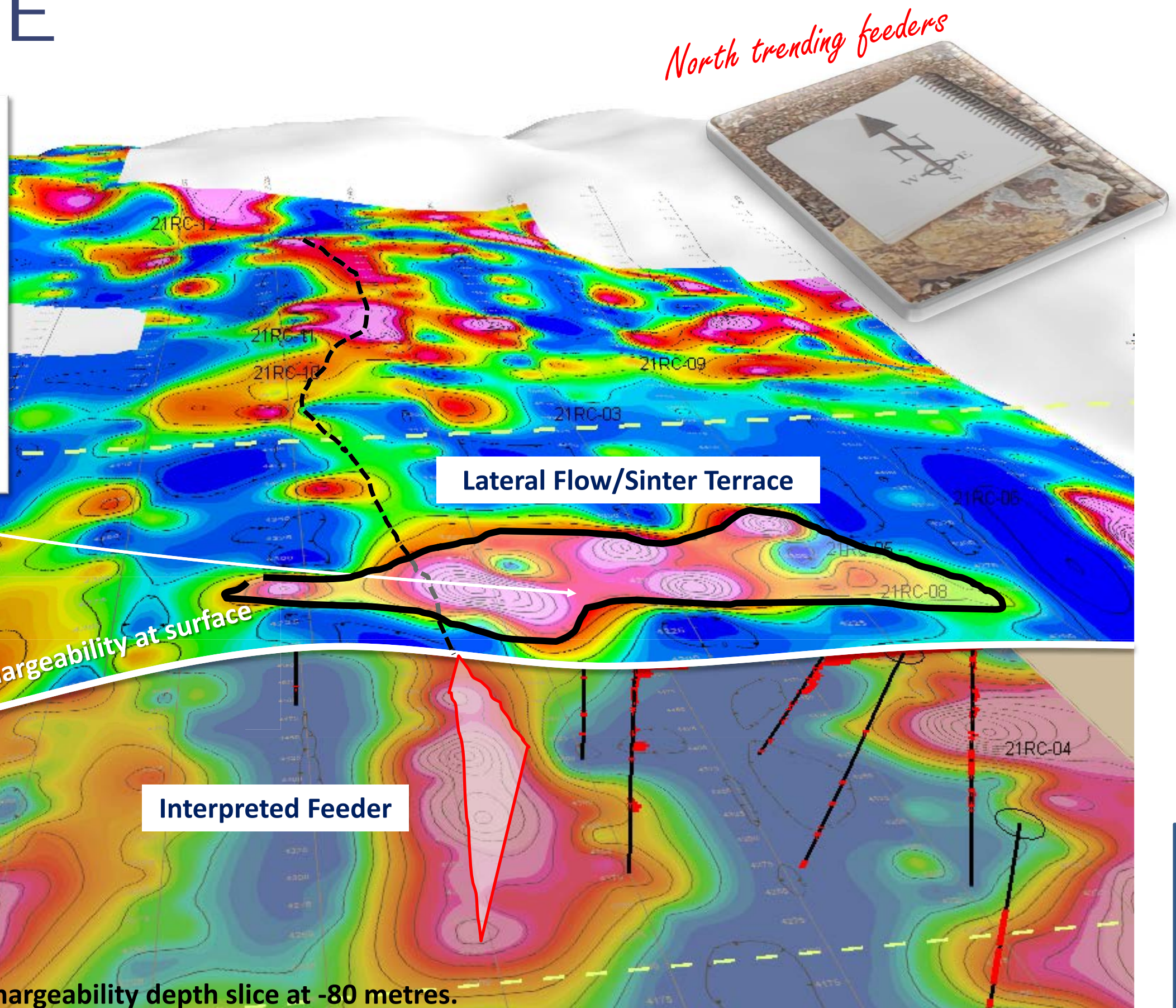
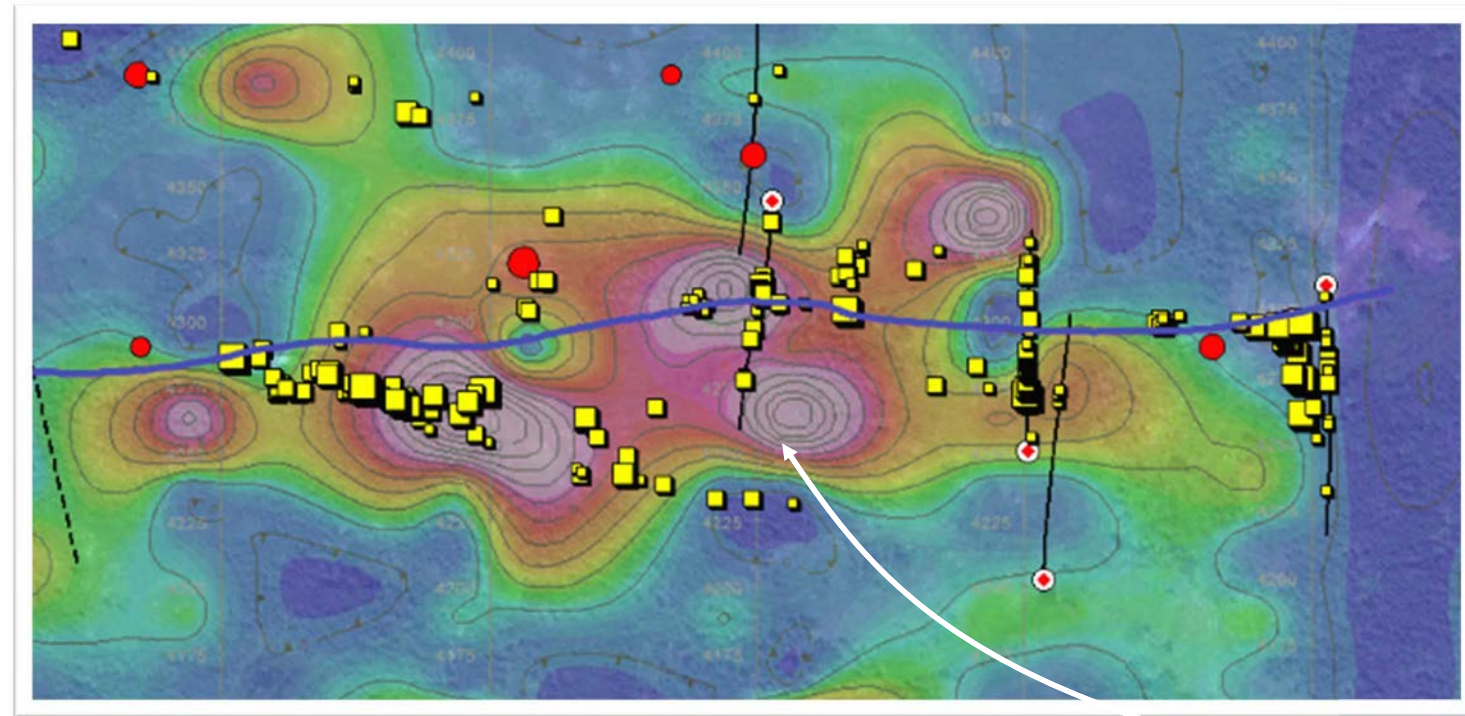
CONQUEST ZONE

QUESTIONS AND ANSWERS

- Much of the mineralization in the eastern portion of Conquest is found in an unusual, dark grey siliceous that contain up to 7% K₂O. Similar rocks are described at Fruta del Norte.
- Despite wide intersections in drill-core it was also puzzling that they had limited depth extent
- It is now understood these represent lateral, (eastward) flow of hydrothermal fluids along contacts and sinter
- It was this understanding that provided a vector to the up-flow zone where the main vein system would be expected



SINTER TO CENTRE

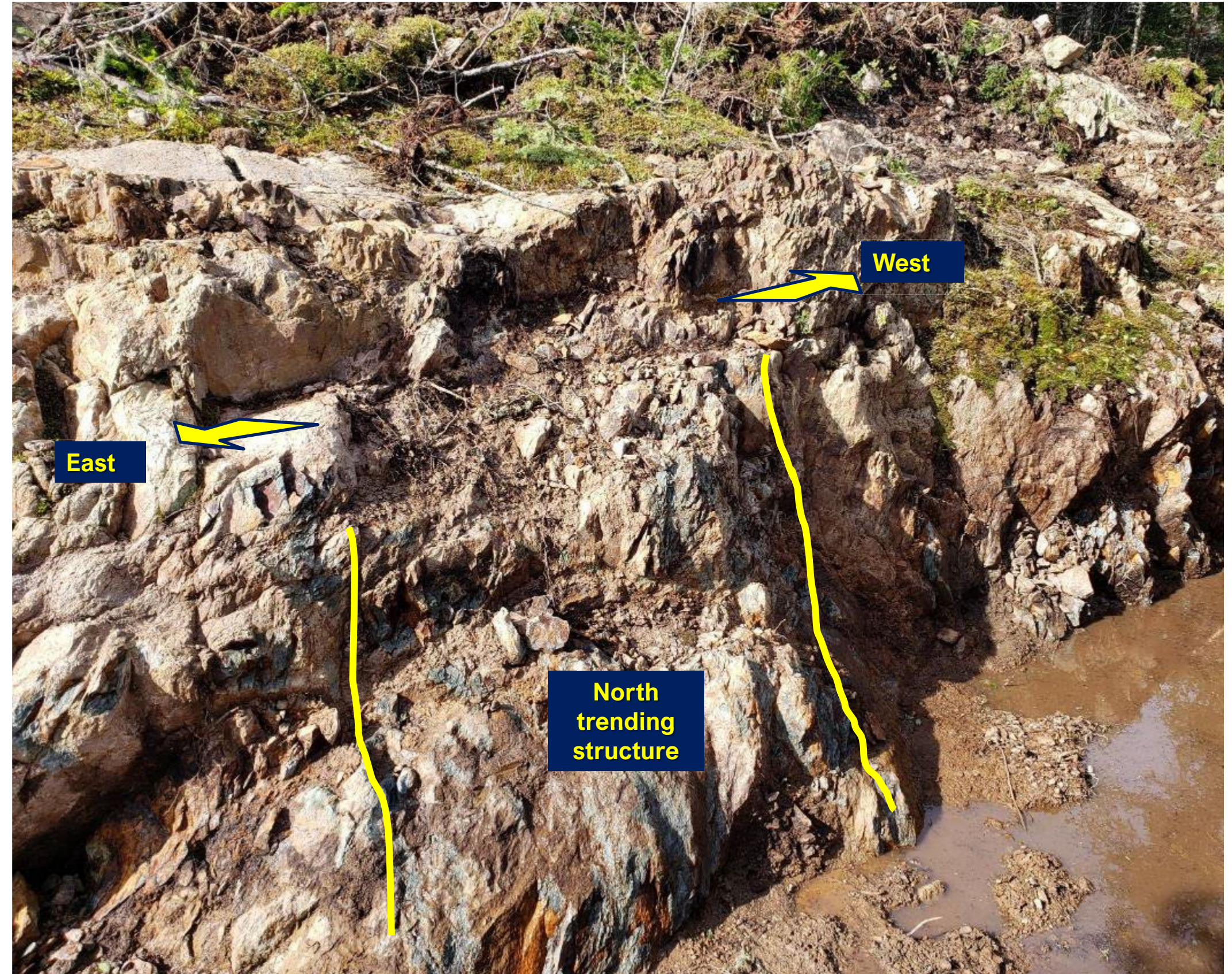


North trending feeders

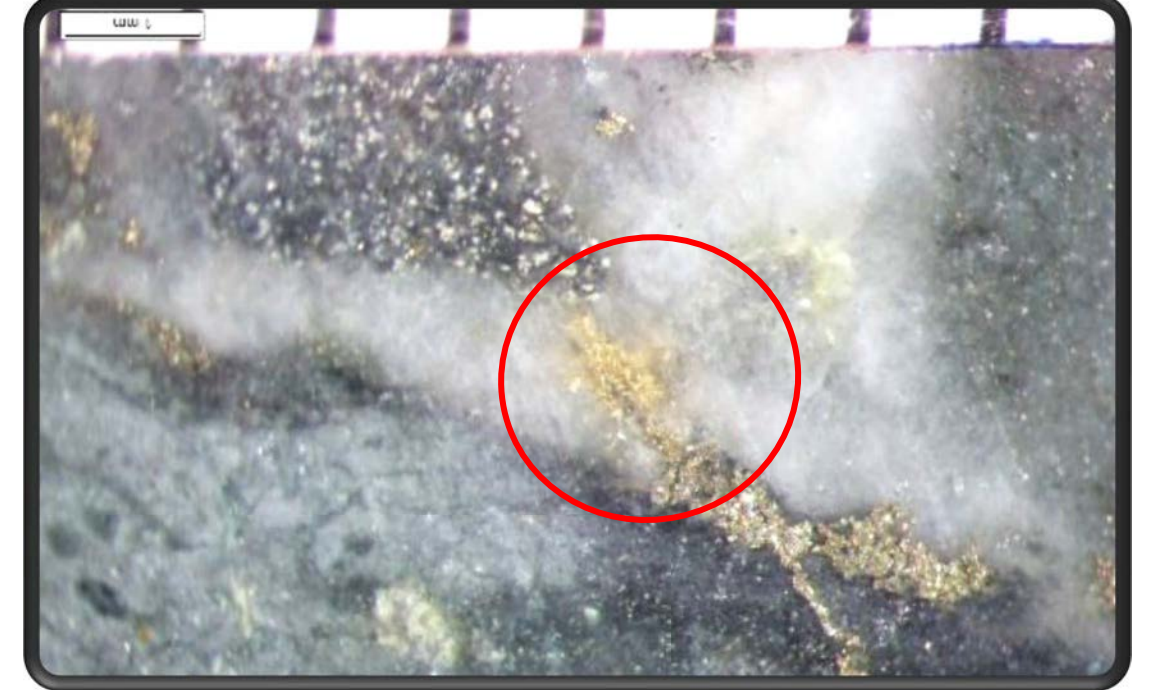
- Much of the gold found to date correlates to east-west trending IP anomalies
- These IP anomalies are now known to represent lateral flow of hydrothermal fluids that exploited lithological contacts and unconsolidated mafic lapilli tuffs (sinter terraces)
- The 2021 drill-holes targeted these structures assuming they continued to depth
- However, re-modelling of the geophysics showed the east-west anomalies had limited depth extent but were underlain by a series of north trending anomalies

VECTORS TO GOLD

- The expansion of the original Discovery Trench in 2023 showed:
 - the increasing presence of crustiform-colloform banded quartz vein and potassium minerals
 - revealed the very tops of the north trending feeding structures
 - increasing abundance of visible gold
- This area became the focus of the second drill program completed in 2023



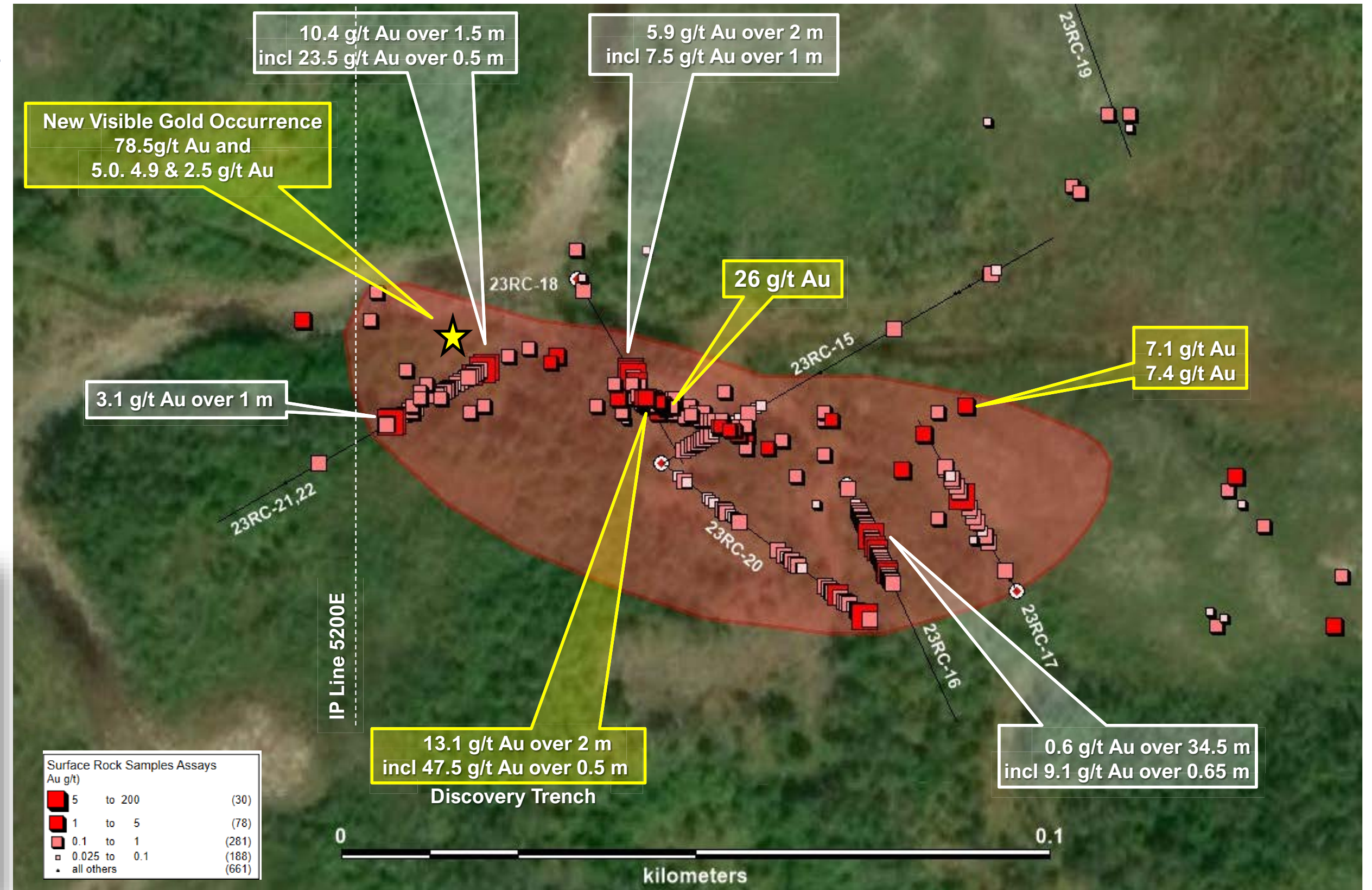
VISIBLE GOLD, QUARTZ VEINS & BRECCIAS



DISCOVERY TRENCH AREA SUMMARY

UP-FLOW ZONE/SINTER MOUND

- 7 of 8 drill holes completed in 2023 intersected mineralized quartz/silica-pyrite-illite breccias and veins consistent with the tops of a low-sulphidation epithermal gold system.
- Near continuous gold mineralization in area measuring approximately 100 x 35 metres
- Of the 200 samples collected in the drilling program, 135 samples assayed greater than 0.1 g/t Au.
- Identification of sinter material and geyser sediments in drill core and outcrop



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

HYDROTHERMAL BRECCIAS

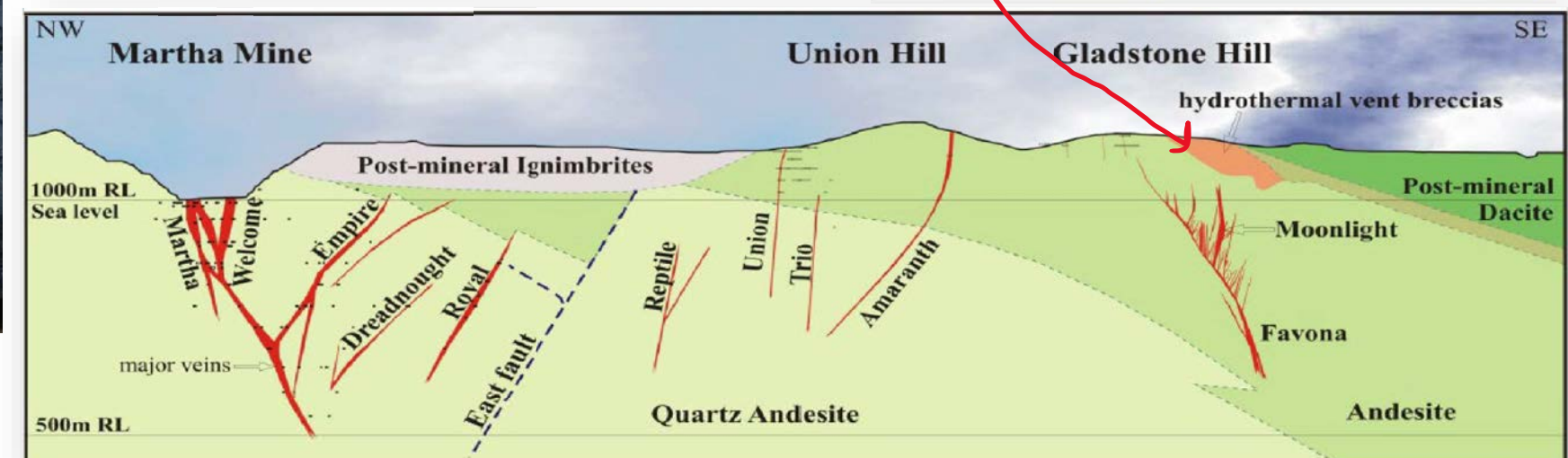
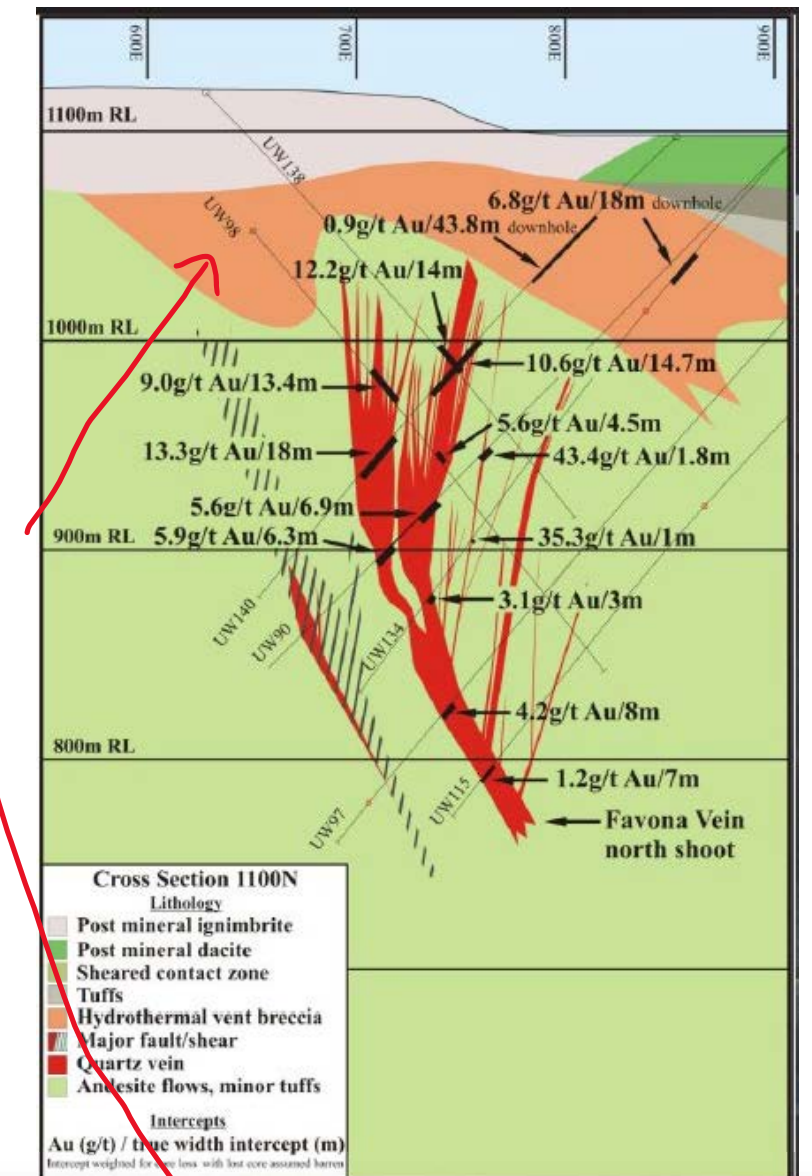


Root & cellar drill-hole 23RC-16 intersected 34.5 m of hydrothermal vent breccia grading 0.6 g/t Au

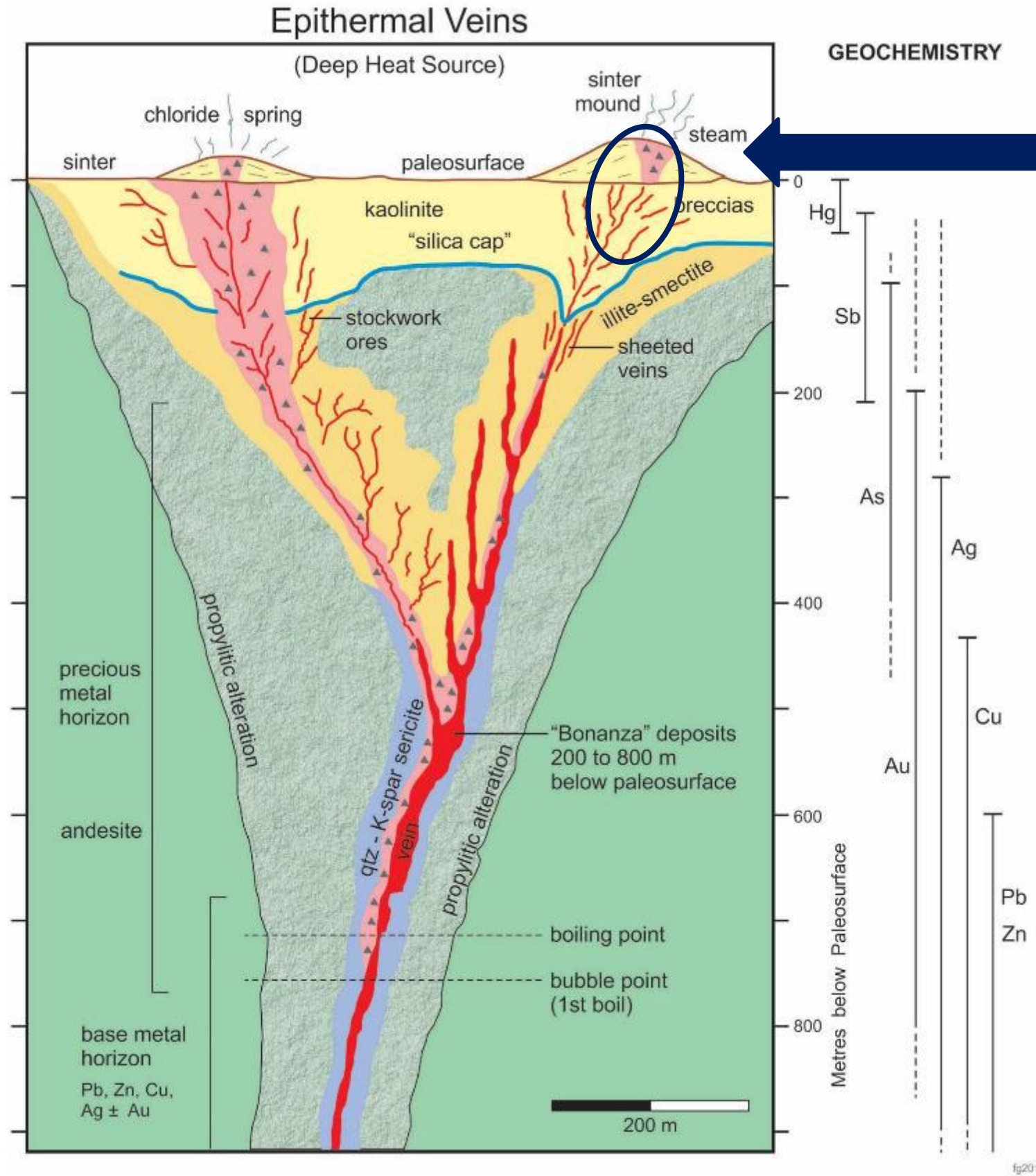
- Hydrothermal vent breccias are often found near the top of epithermal veins systems
- Such gold anomalous hydrothermal vent breccias are well documented over some of the main veins at Waihi.

Hydrothermal Breccias!

Waihi is one of several epithermal gold camps in the Hauraki District in New Zealand, formerly operated by Newmont, now owned by Oceana Gold and has produced over 7 Moz of gold and 42 Moz of silver



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



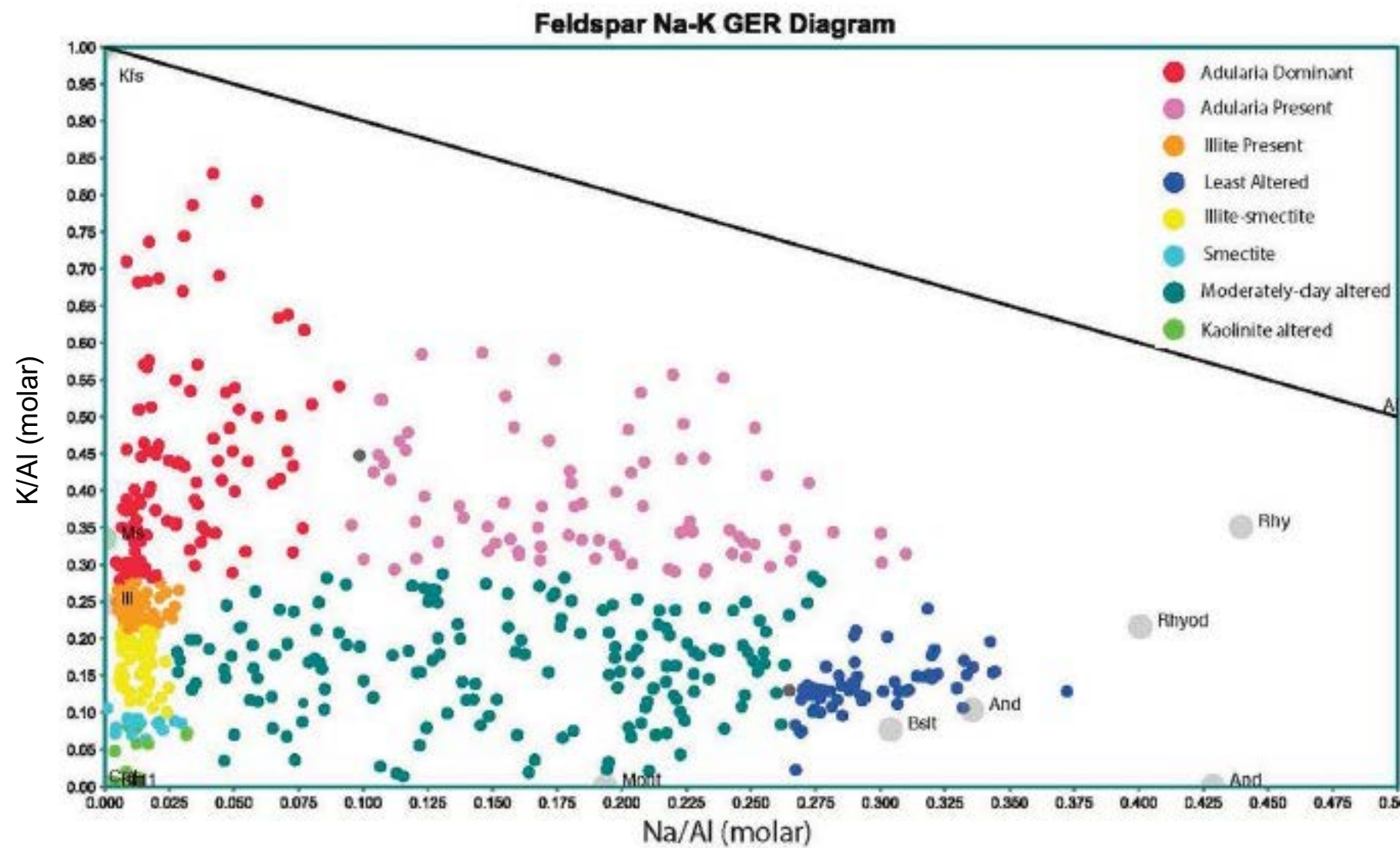
Hot-spring sediment (?) (Muddy, siliceous sediment with elevated Hg)



Sinter Fragments (?)



CASE STUDY- WAIHI, NEW ZEALAND



Diagrams from: The lithochemical signatures of hydrothermal alteration in the Waihi epithermal district, New Zealand, Barker et al 2019

- Studies by Barker et al 2019 on the Waihi epithermal gold deposit used geochemical ratio plots as a proxy for alteration minerals
- The geochemical data revealed that elevated K/Al ratios occur in rocks proximal to low sulphidation Au–Ag veins, reflecting adularia alteration in the host rocks associated with the up-flowing hydrothermal fluids.

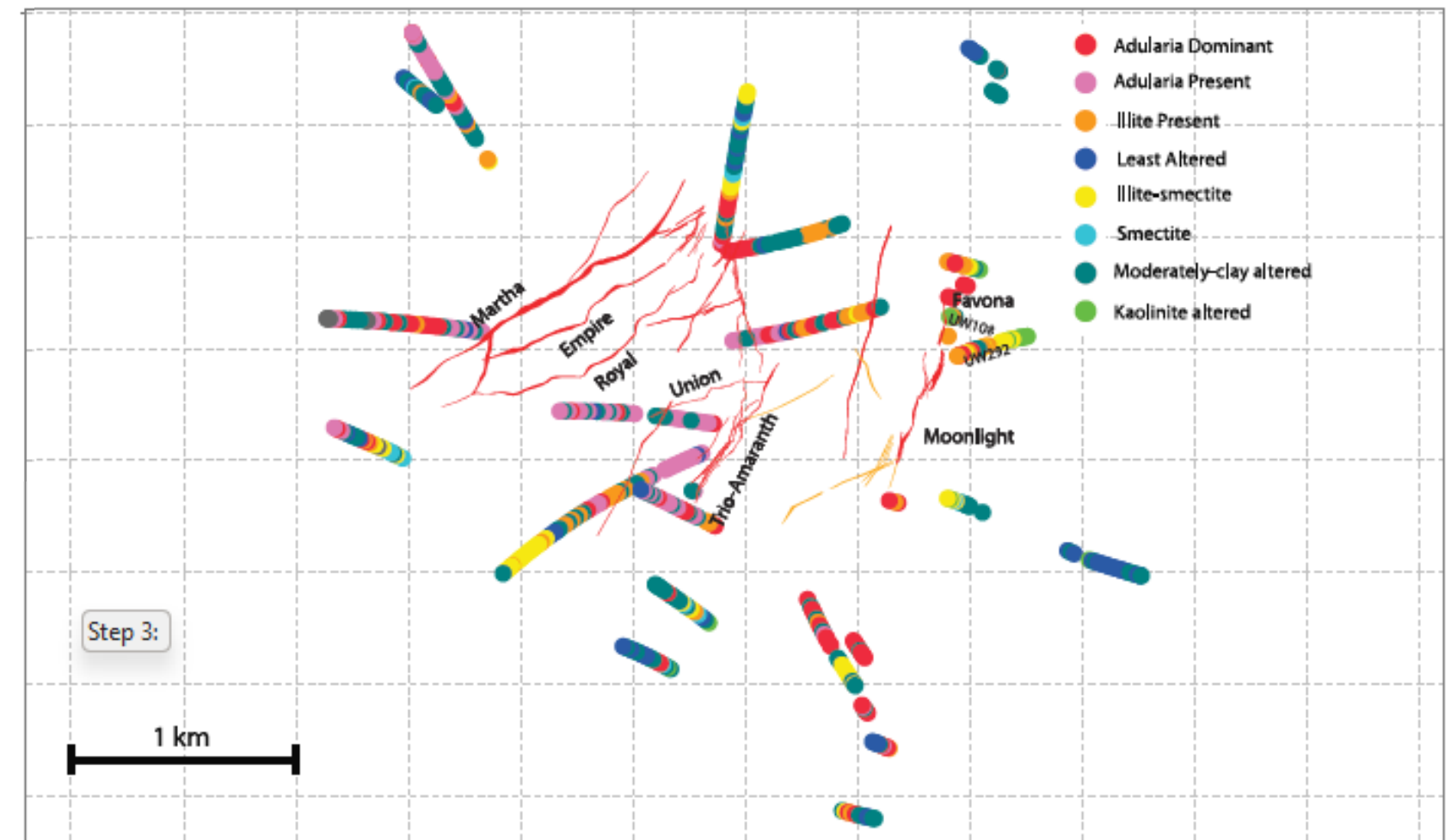
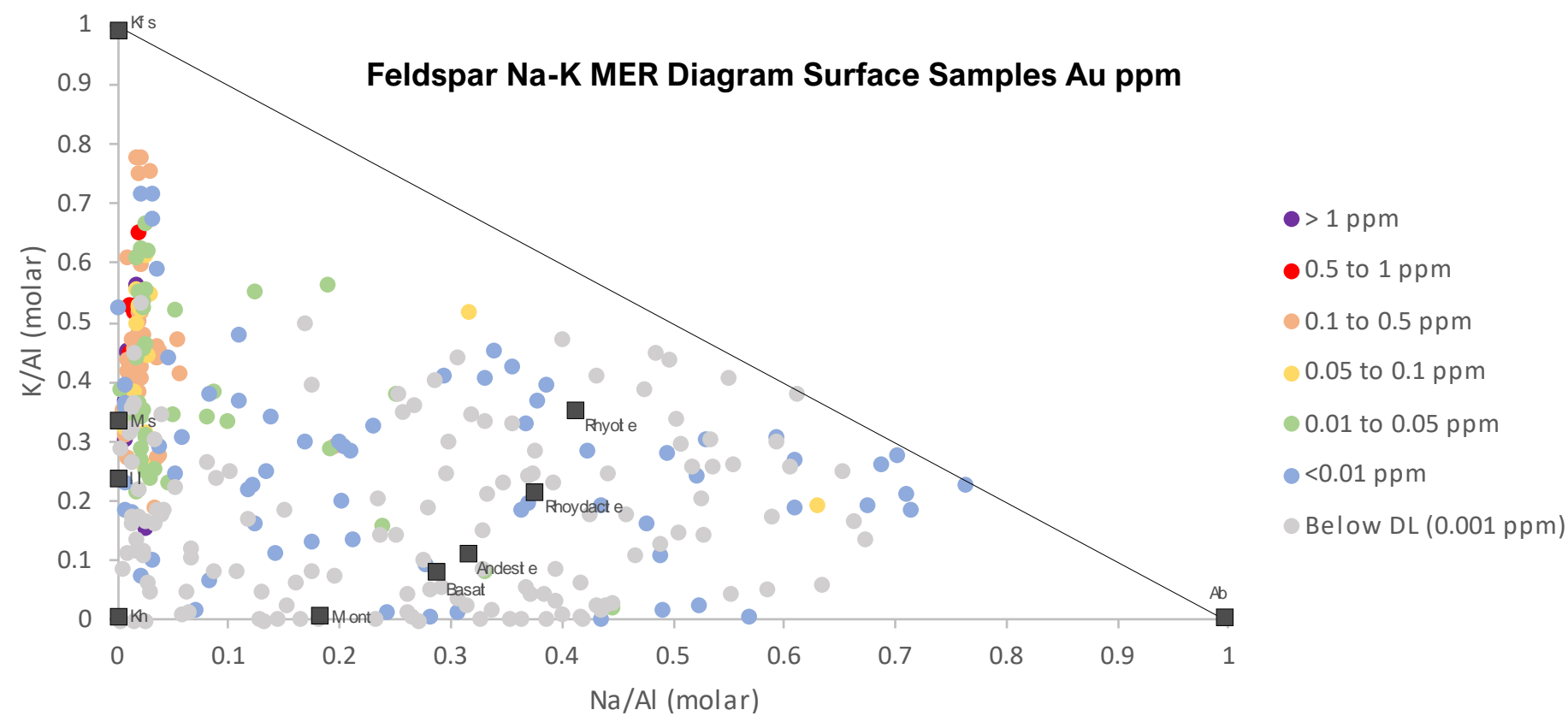
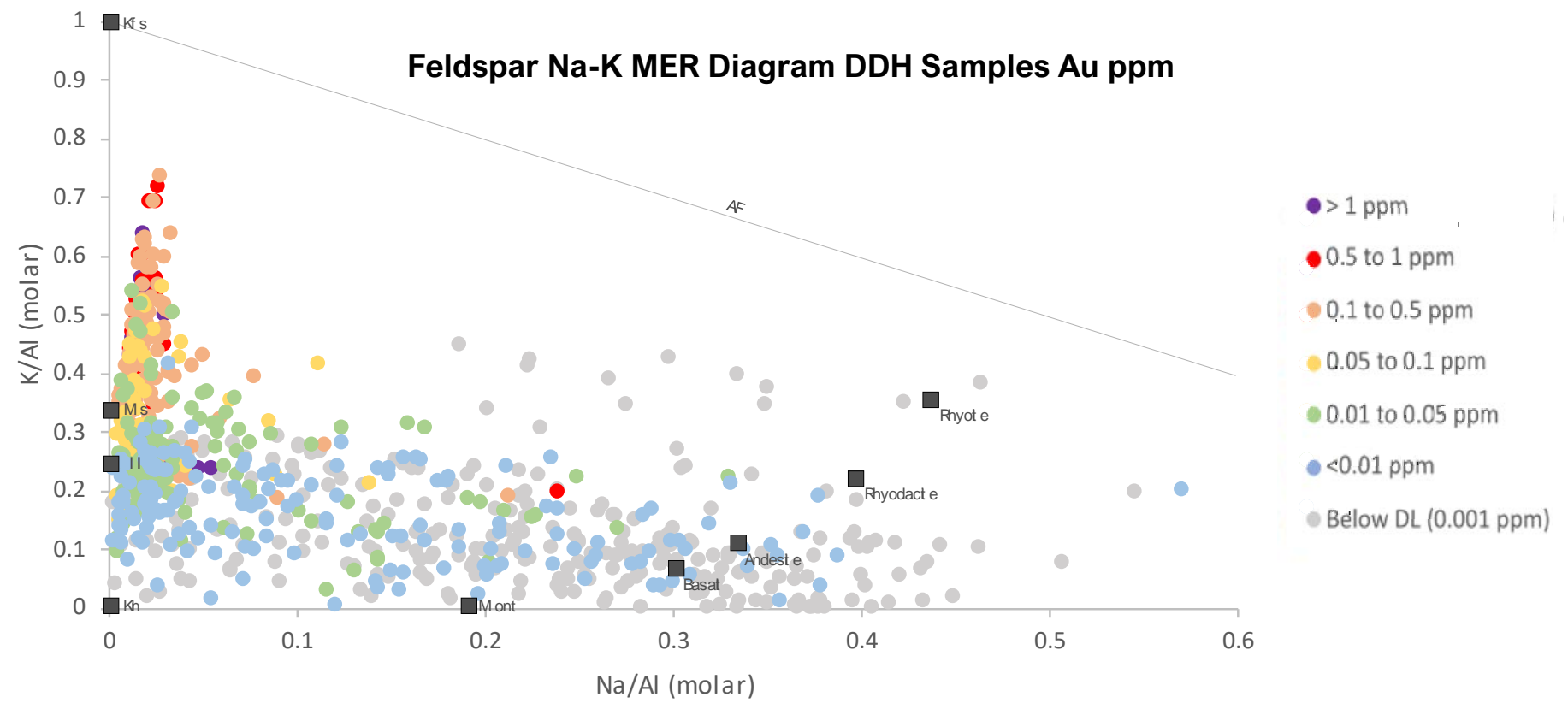


Figure 8. Map showing the distribution of alteration styles at Waihi as defined on the basis of the lithochemical alteration classification (see Figure 7).

WAIHI CASE STUDY APPLIED TO ROOT & CELLAR

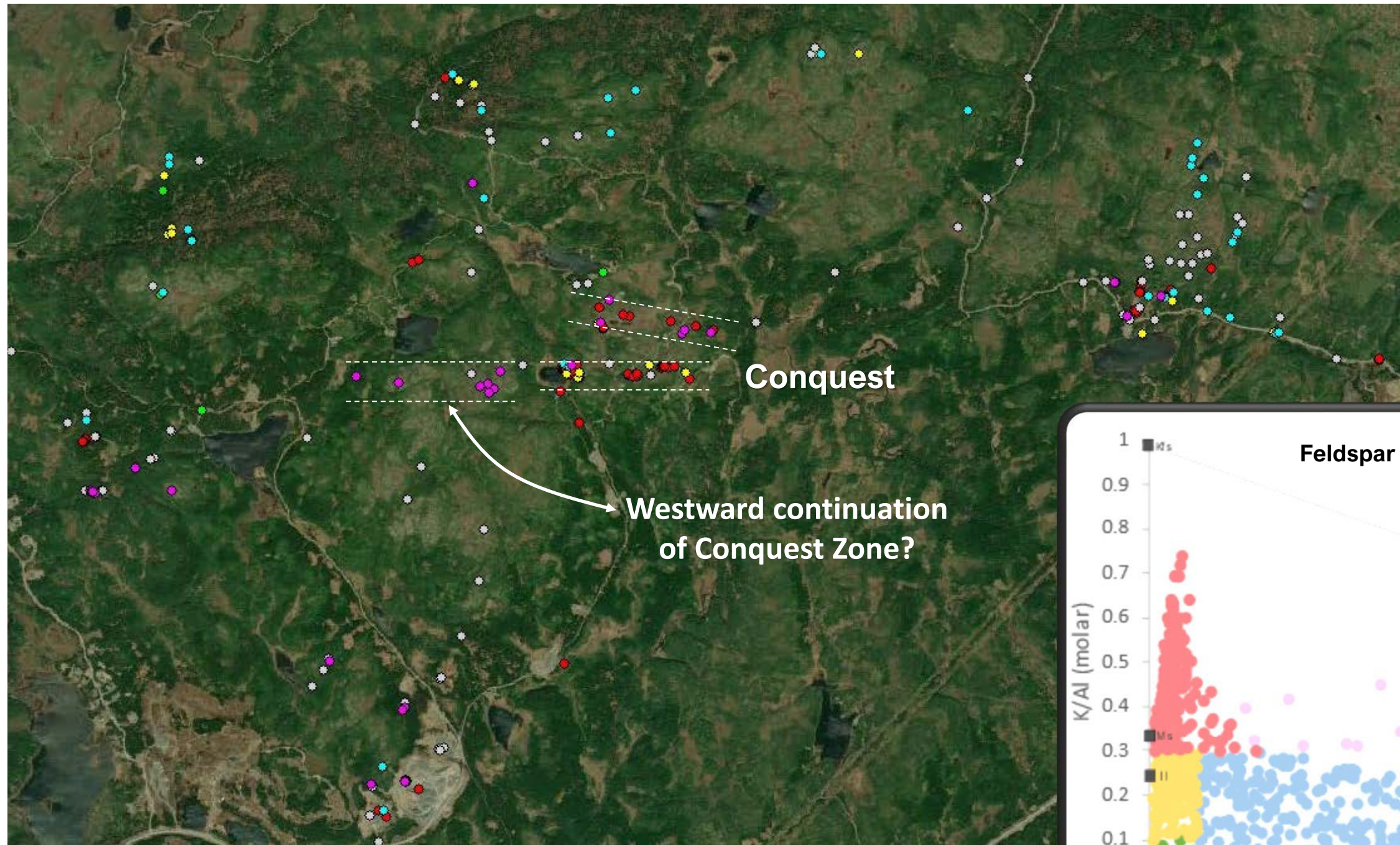


- Surface and DDH sample data from Root & Cellar was plotted on the same charts as used at Waihi.
- Initially the plots were then colour coded according to gold values to re-affirm that high K/Al ratios are related to the gold mineralization.
- Results clearly show mineralization associated with increasing K/Al values i.e illite -> adularia



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

WAIHI CASE STUDY APPLIED TO ROOT & CELLAR



- Following work done at Waihi epithermal Au deposit in New Zealand, Root & Cellar samples were placed into previously established alteration groups based on K/Al
- In context of the entire Root & Cellar Property, the Conquest Zone stands out as containing the most abundant adularia-bearing samples

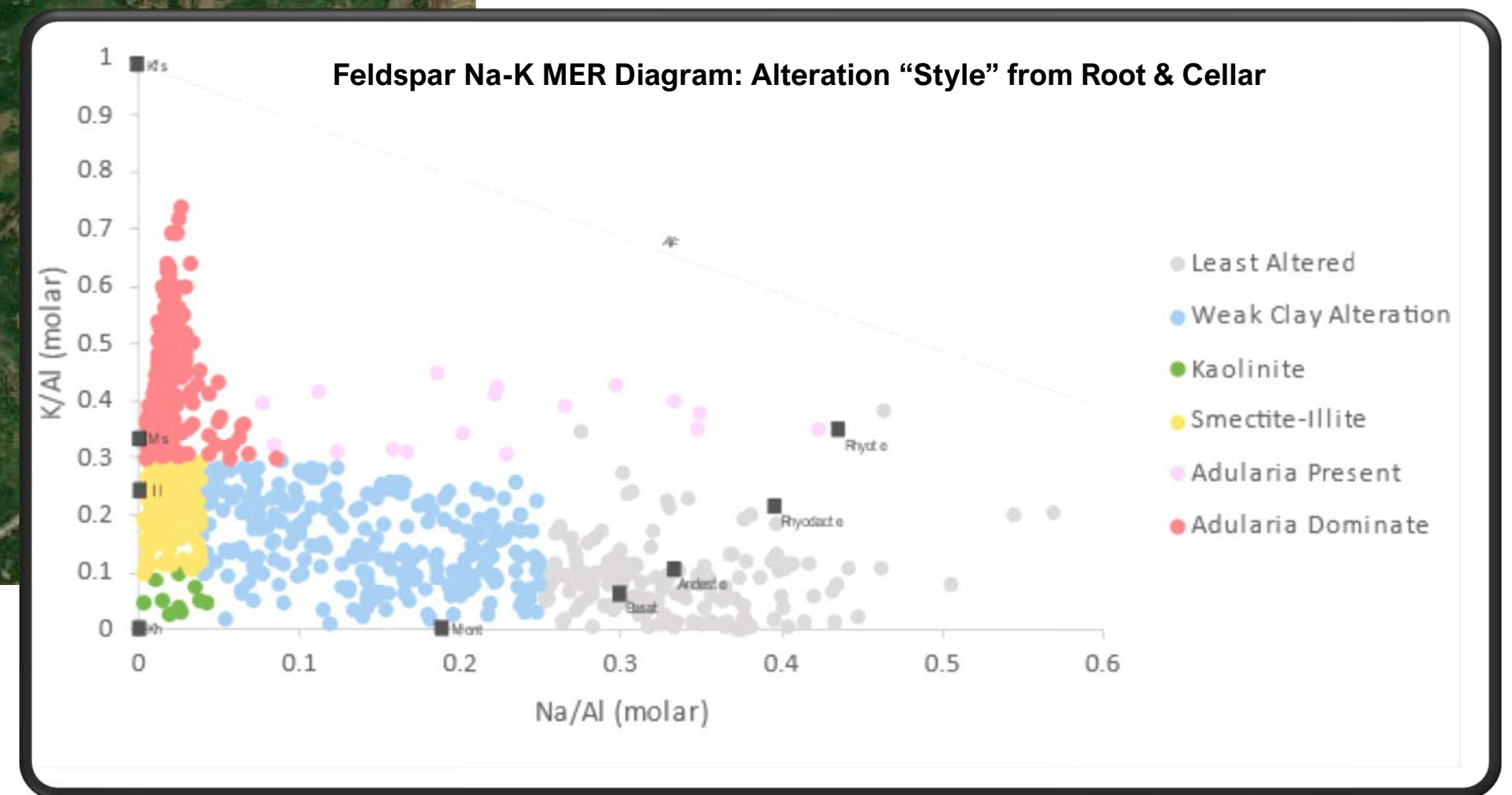
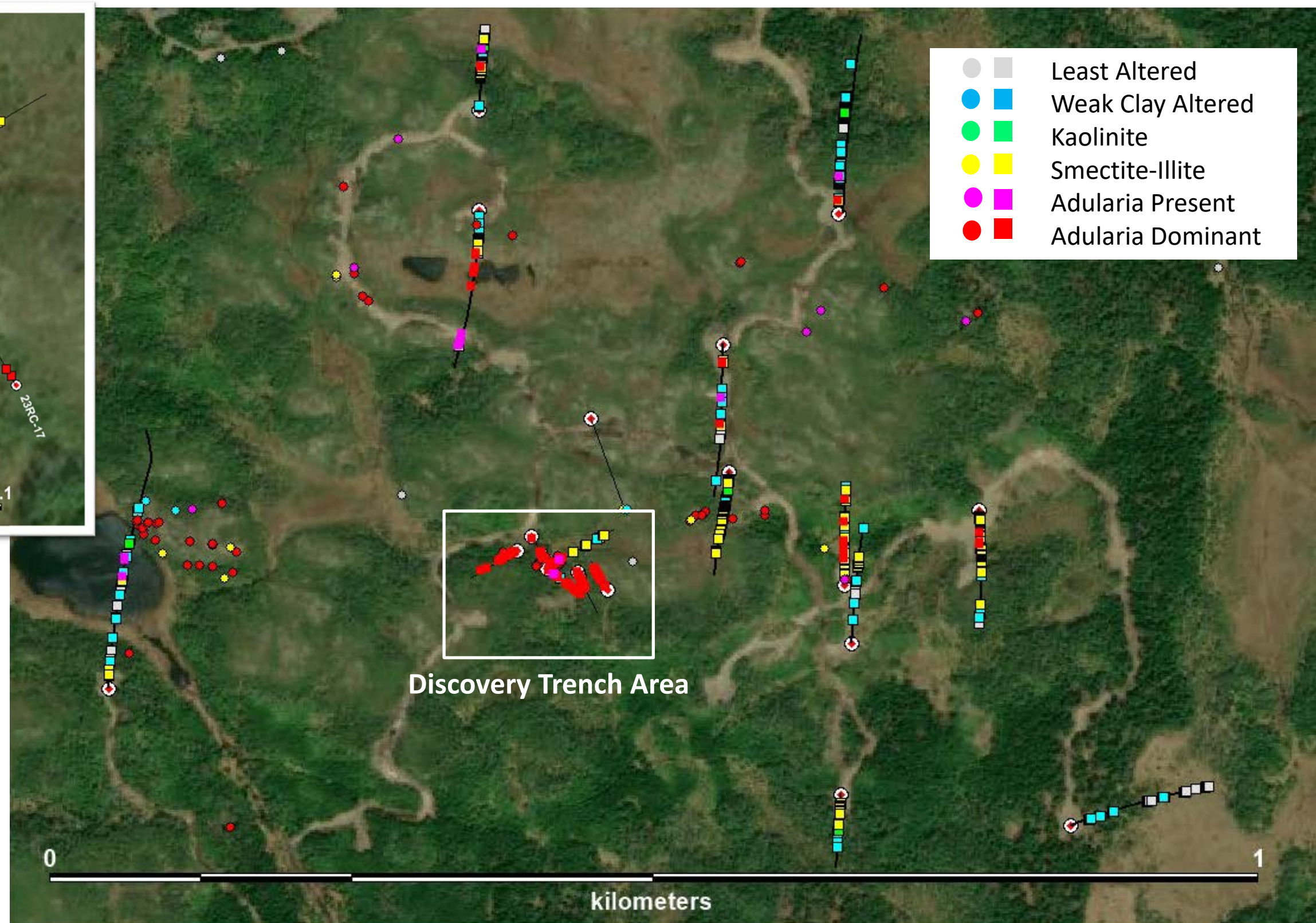
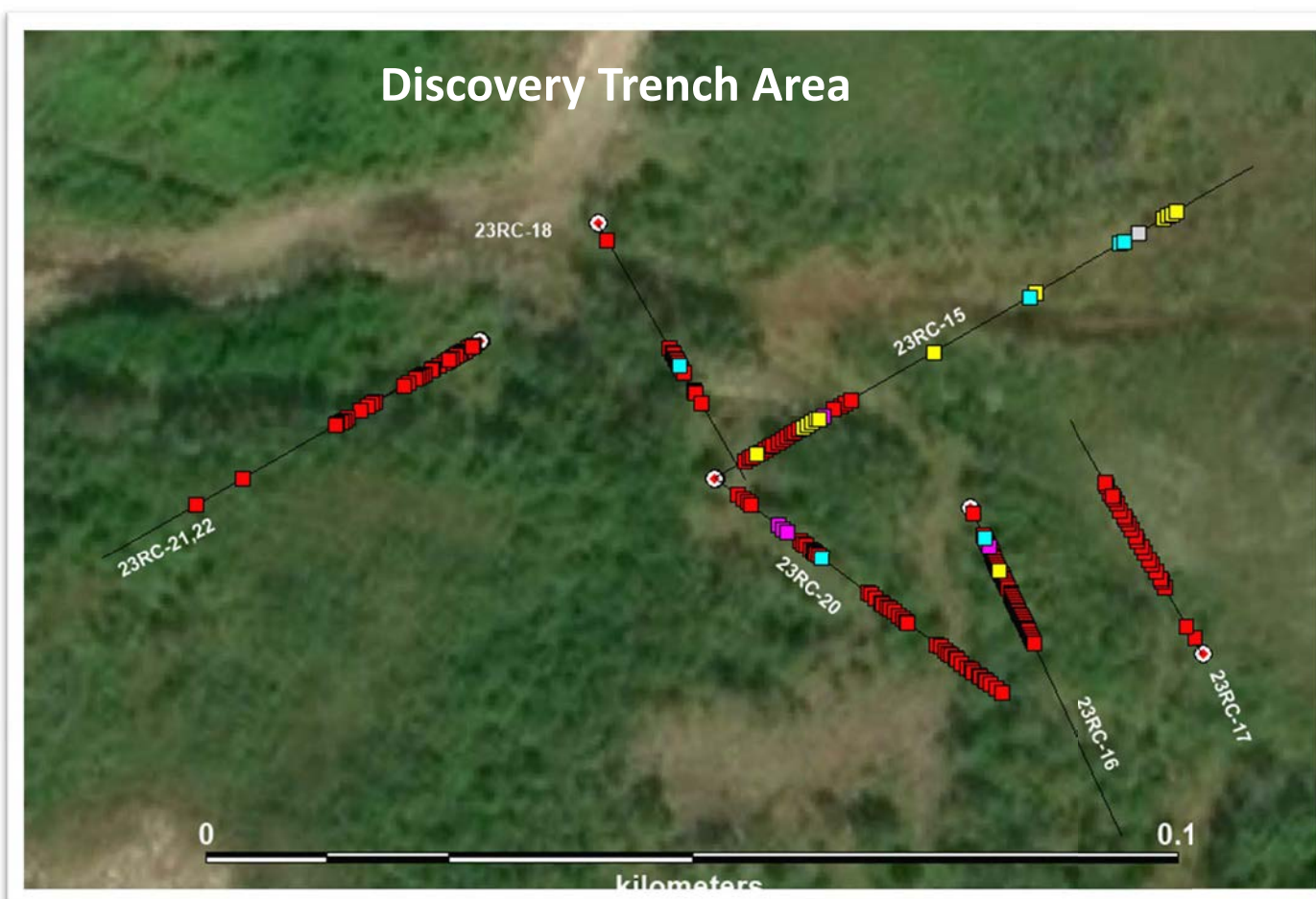


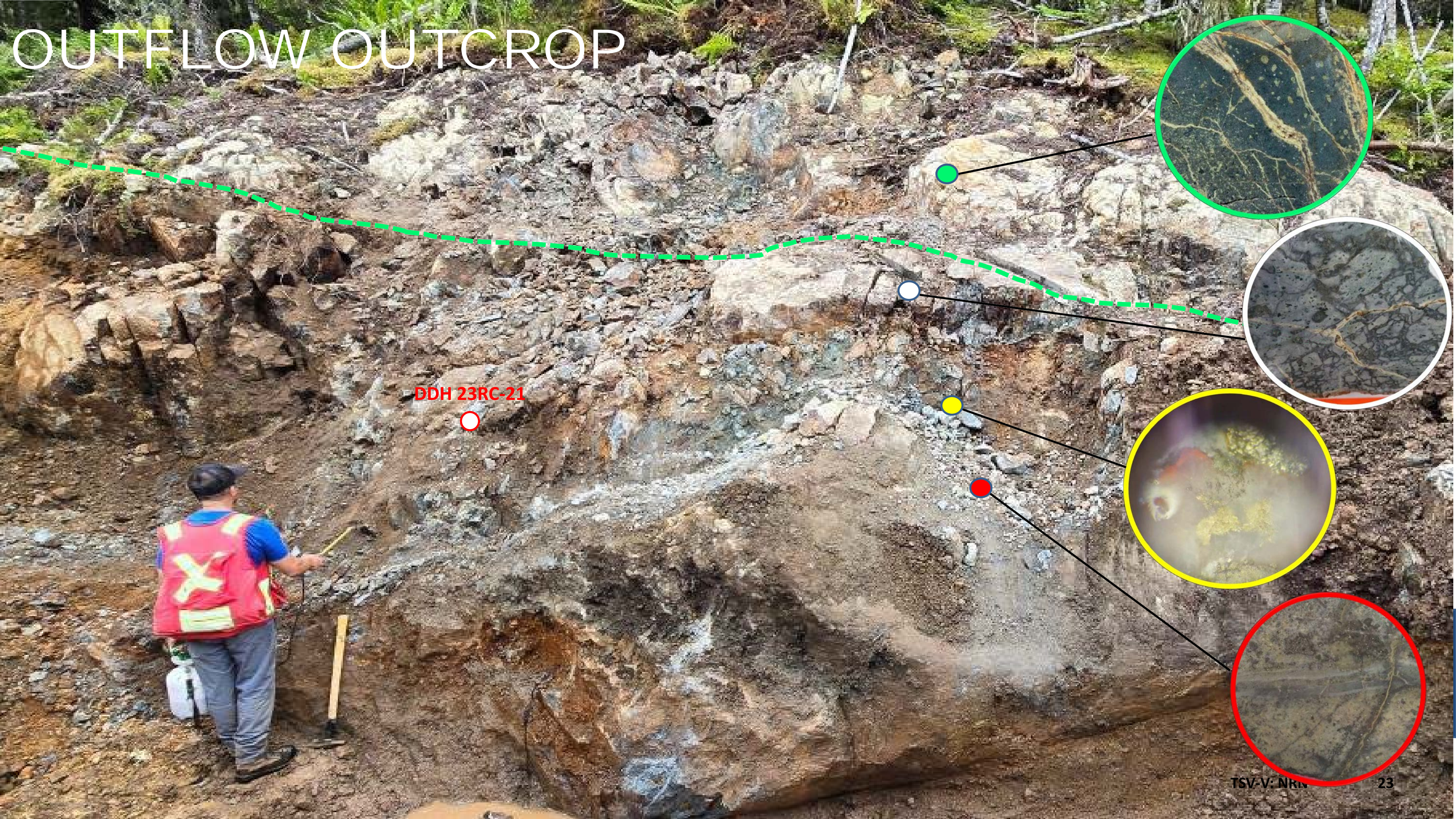
Diagram from Kaine Johnson, M.Sc. Student, Memorial University of Newfoundland

WAIHI CASE STUDY APPLIED TO ROOT & CELLAR



- Zooming in on the Conquest Zone and adding drill data it becomes very clear that the Discovery Trench area is distinctly anomalous in adularia based on K/Al ratios
- With nearly every samples in all drill holes in this area being adularia dominant
- These plots strongly support other evidence that the Discovery Trench area is an up-flow zone and likely closest to an epithermal vein

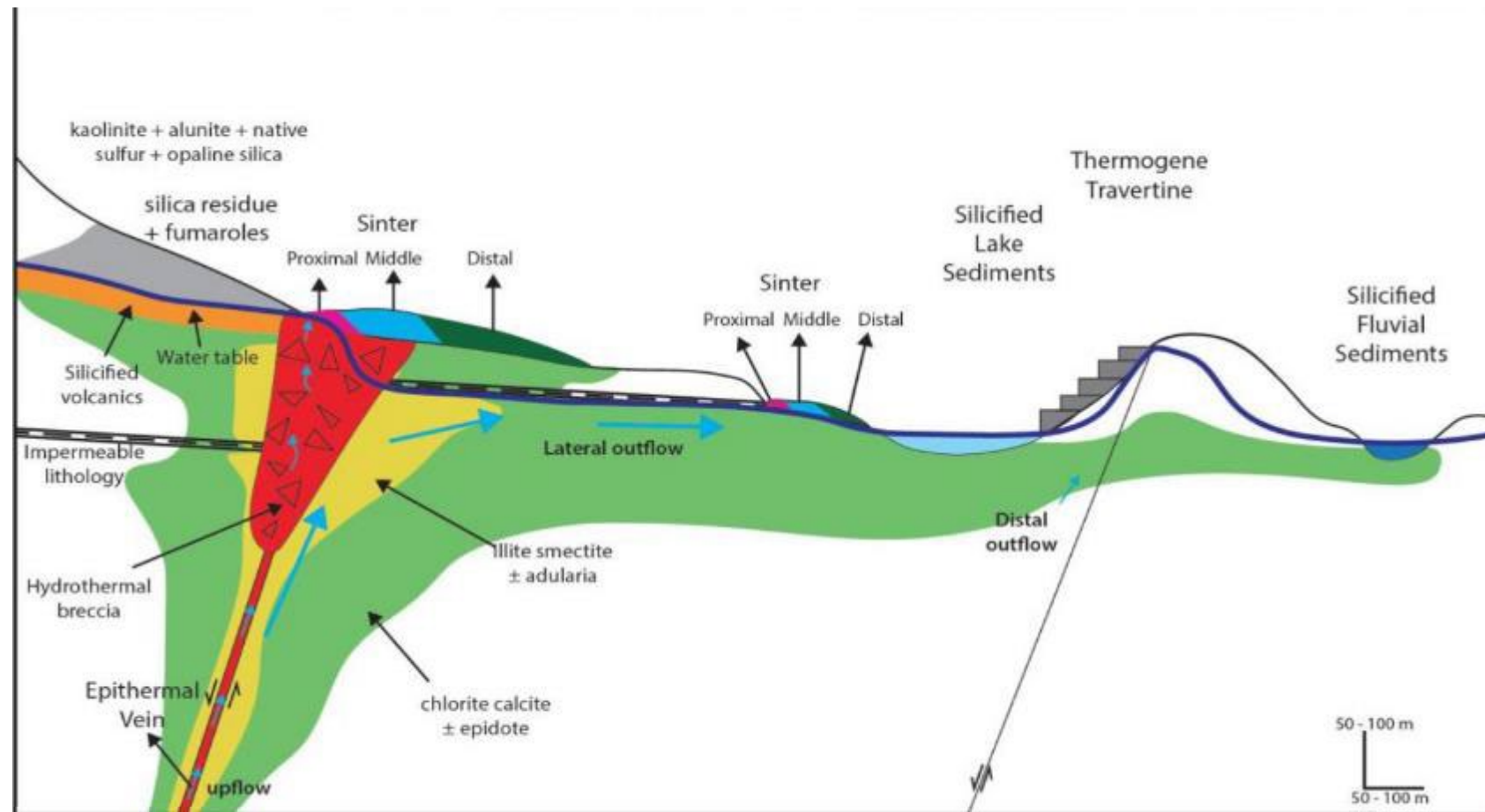
OUTFLOW OUTCROP



DDH 23RC-21

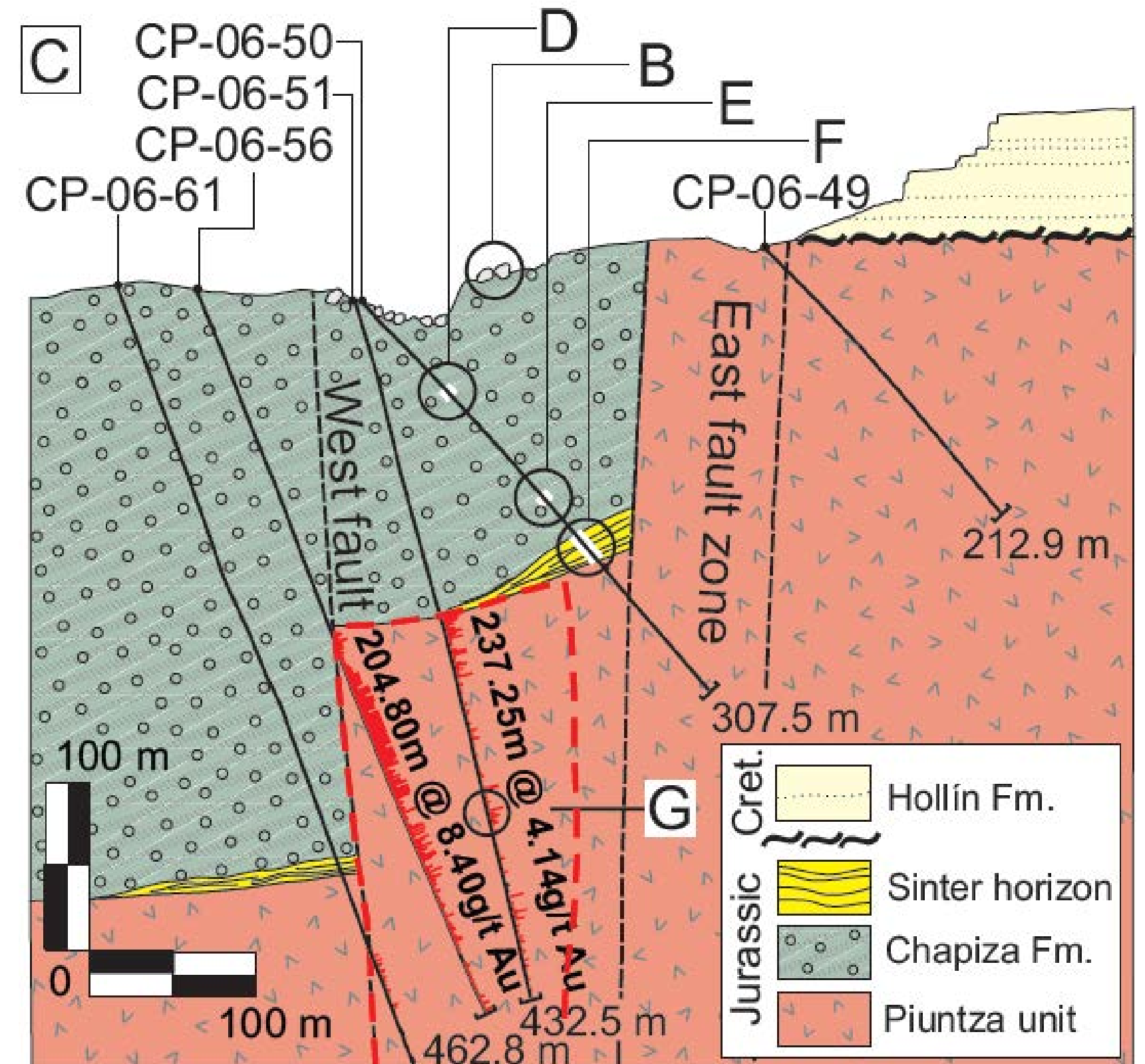


SINTERS – PATHFINDERS TO DEPOSITS



Simplified diagram showing relationship between sinter mound, lateral outflow, breccias and main vein

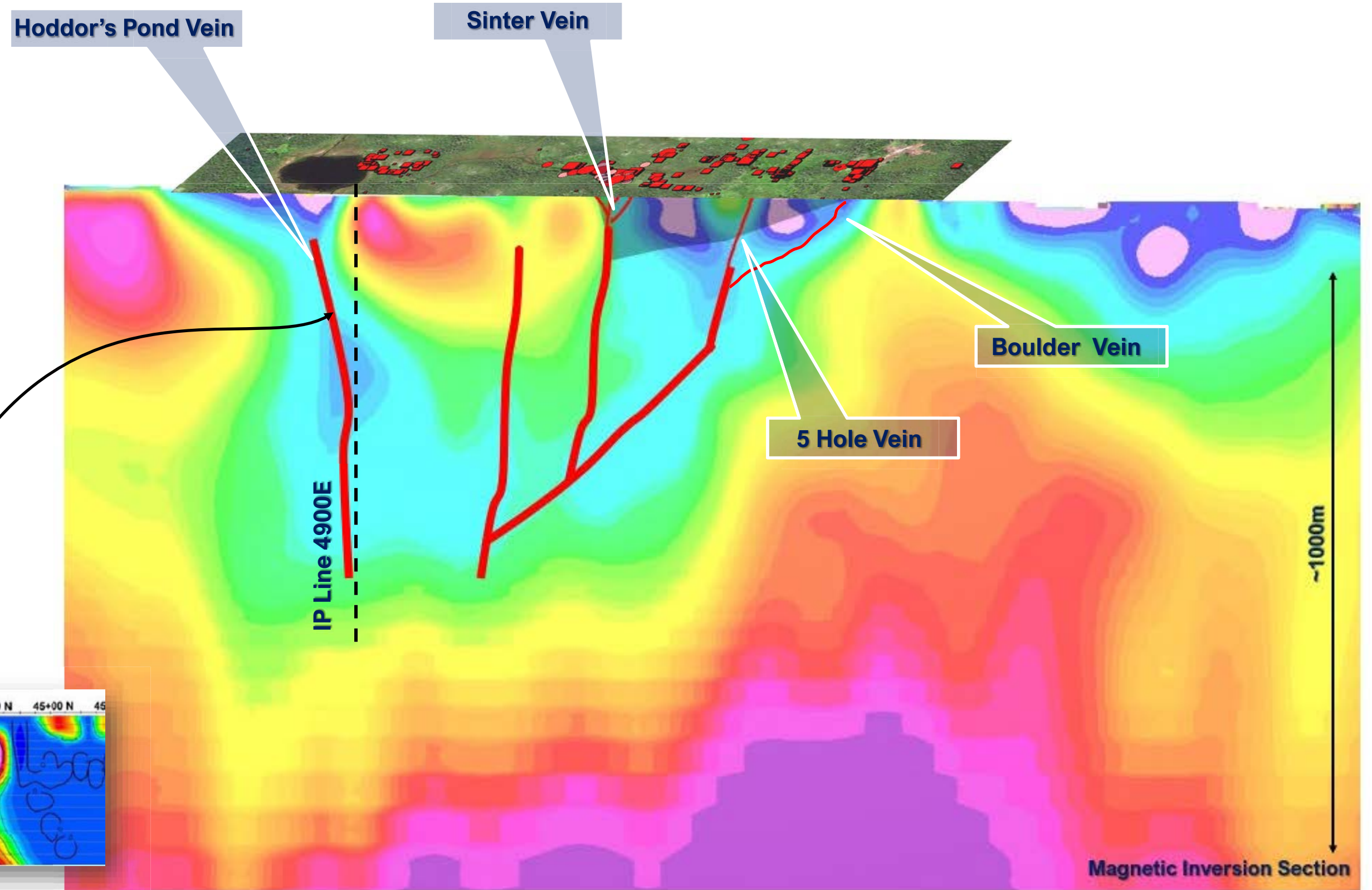
- The Fruta del Norte epithermal gold deposit in Ecuador was a blind system found by recognizing that weakly gold anomalous silica horizons represented leakage (**B in diagram**) from an underlying epithermal system
- This led to a drill program which intersected the periphery of a sinter horizon (**F**)
- The next hole intersected 237m @ 4.1 g/t Au



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

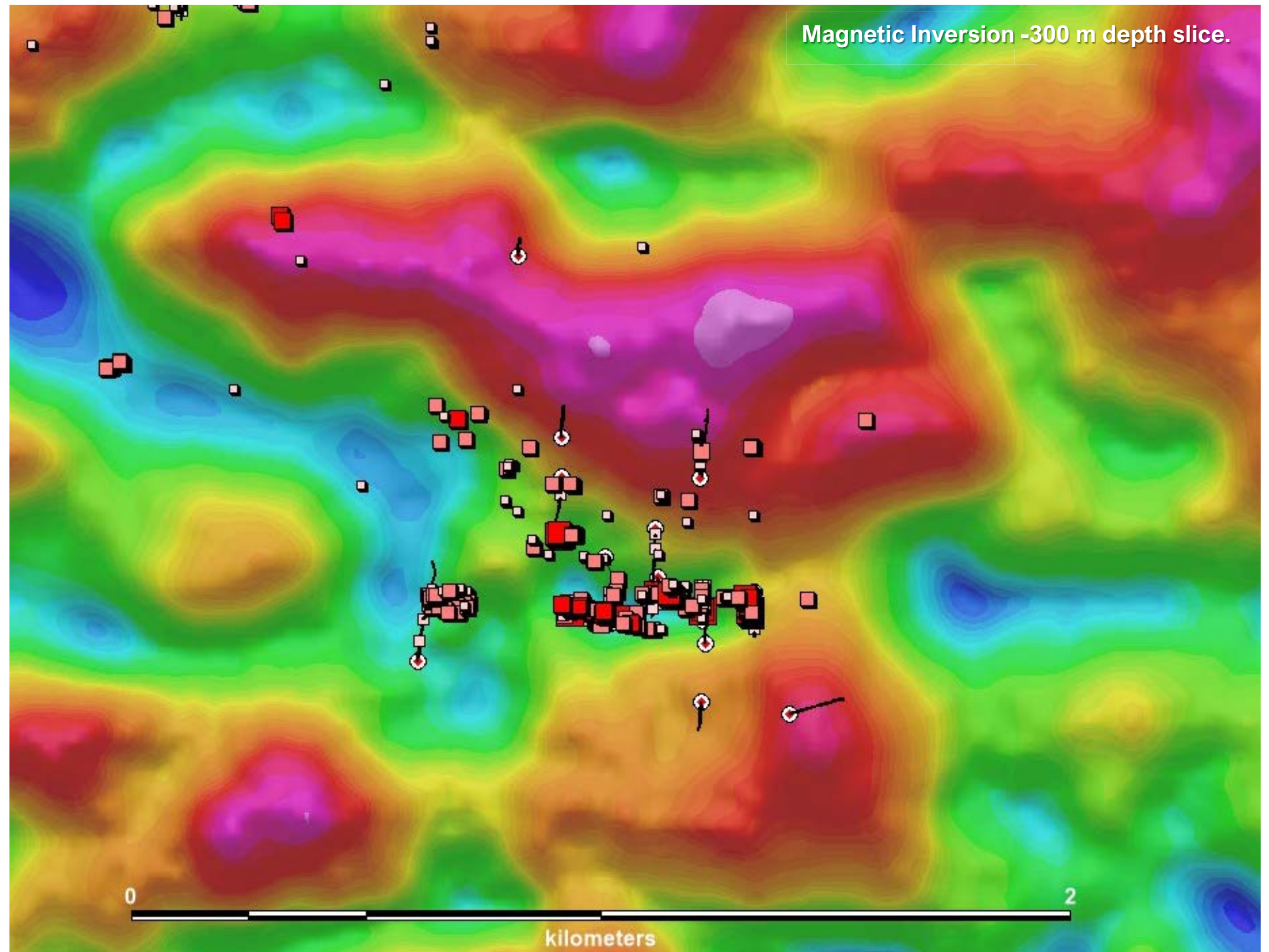
CONQUEST ZONE – CROSS SECTION COMPILATION

- Excellent spatial correlation between mineralization, IP and magnetic lows at depth
- Suggest all three components are related
- Degree of magnetic destruction is significant
- Magnetics can “see” much deeper than IP; shows the epithermal system going to considerable depth.

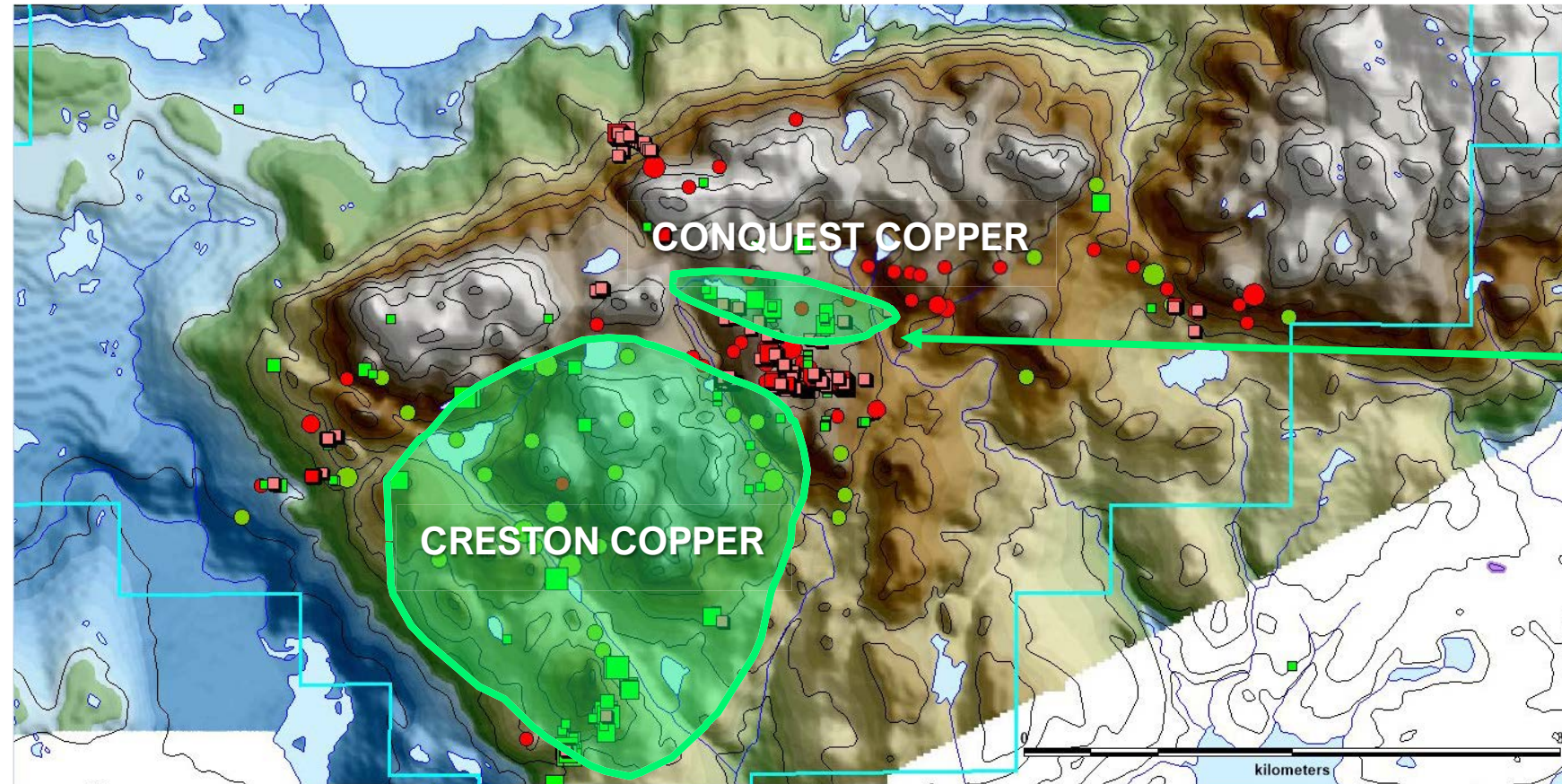


CONQUEST ZONE: GOLD-MAGNETICS

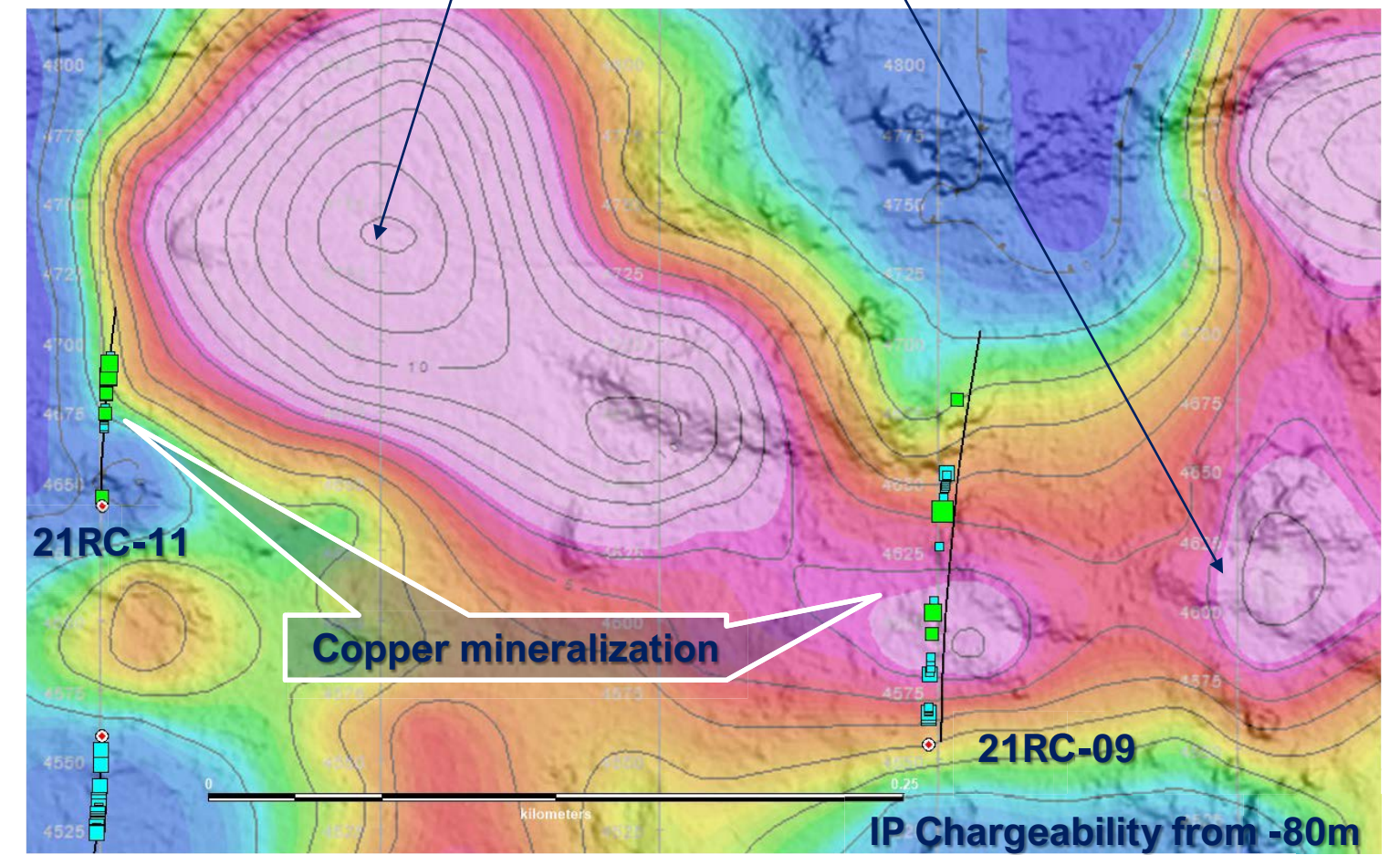
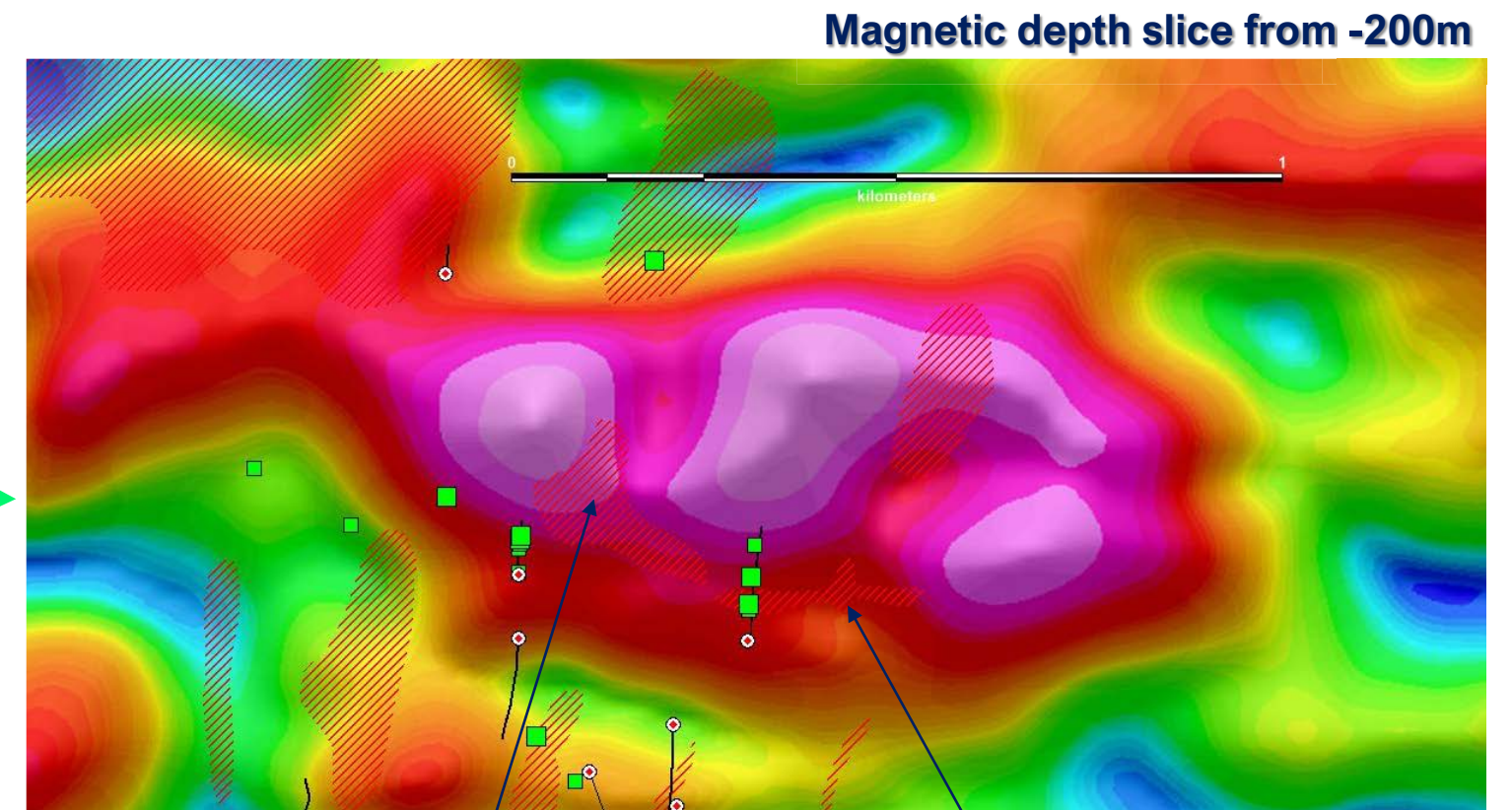
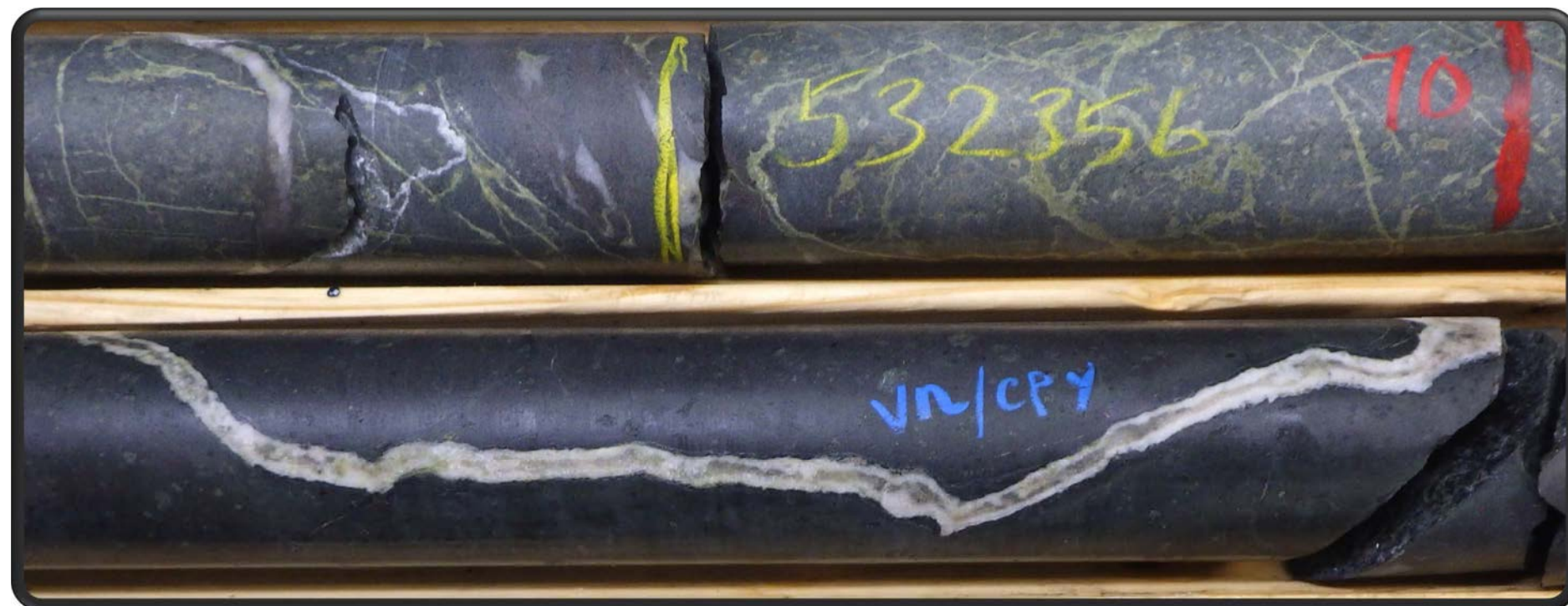
- Excellent spatial correlation between mineralization and magnetic lows



CONQUEST COPPER

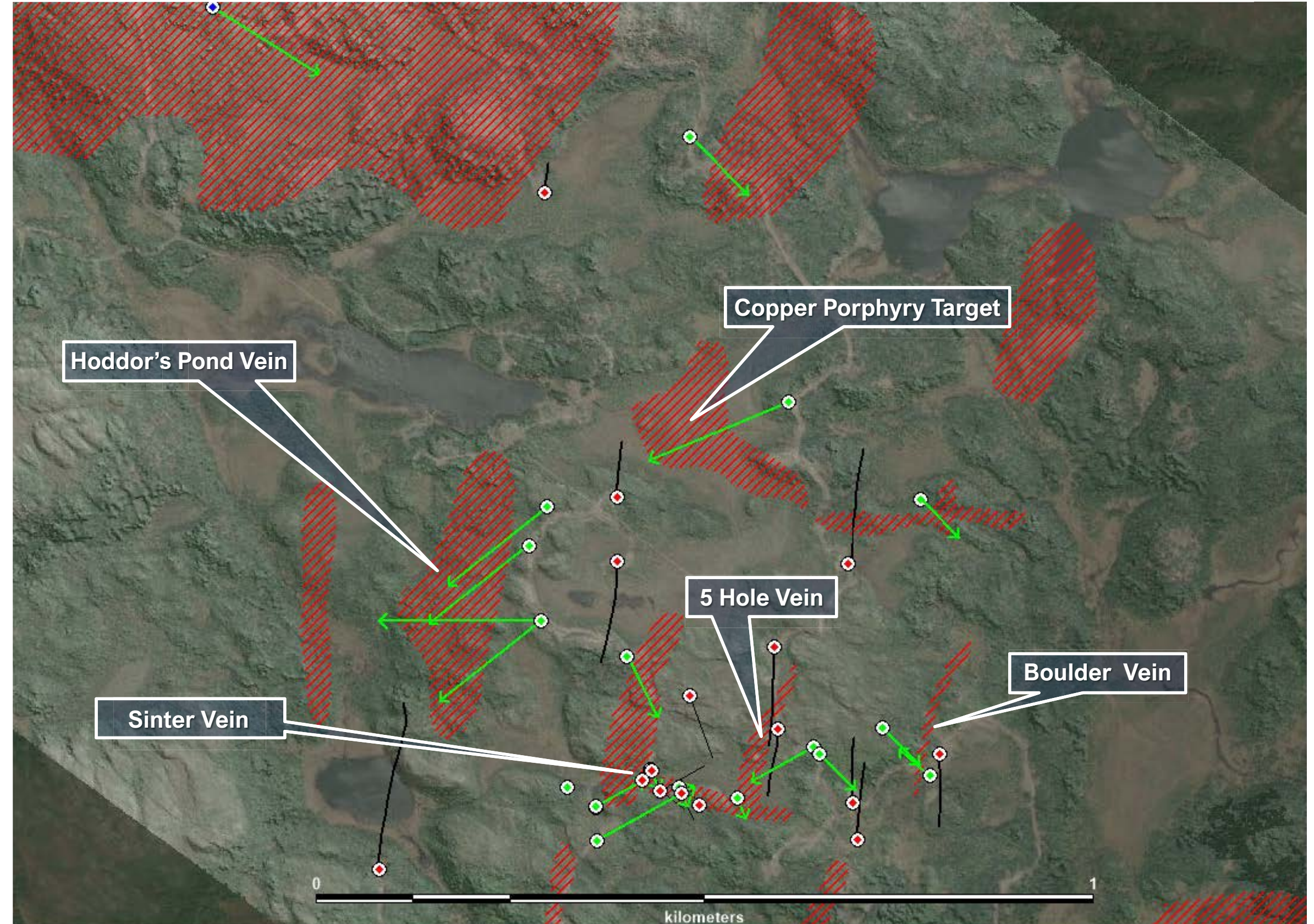


Chalcopyrite-bearing "B" vein from DDH 21RC-11



PLANNED DRILLING

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



THE INVESTMENT OPPORTUNITY



Low sulphidation epithermal gold systems are renowned for their bonanza grades of gold and silver but typically associated with relatively small tonnages. With grab samples up to 111 g/t gold, 1,395 g/t silver and 700 ppm tellurium, and 10.5% copper the high grades are apparent.

However, a select few of low sulphidation gold deposits are also associated with very large tonnages. A comprehensive exploration model and multiple datasets suggests that Root & Cellar has all the ingredients to form one of those few giant and high-grade epithermal gold systems.

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



CORPORATE

MANAGEMENT

Ian C. Bliss



President, CEO

Samuel Legg



CFO

Christine Vaillancourt



Chief Geologist

CAPITAL STRUCTURE

Common Shares O/S	93.3M
Fully Diluted	118.4M
Stock Price	C\$0.045
Market Capitalization	C\$4M
Treasury	C\$400,00
Debt	Nil



DIRECTORS

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Russ Richards

Private wealth manager
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Peter Dimmell

Past President of PDAC
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Past President of PDAC;
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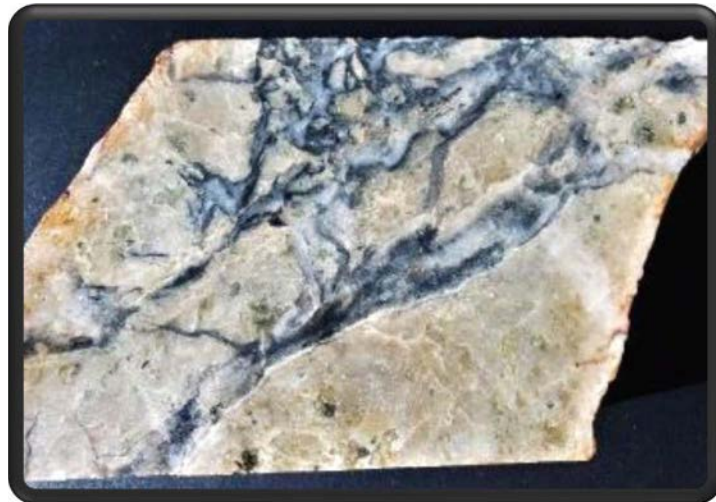


@NorthernShield

Appendix

TELLURIUM

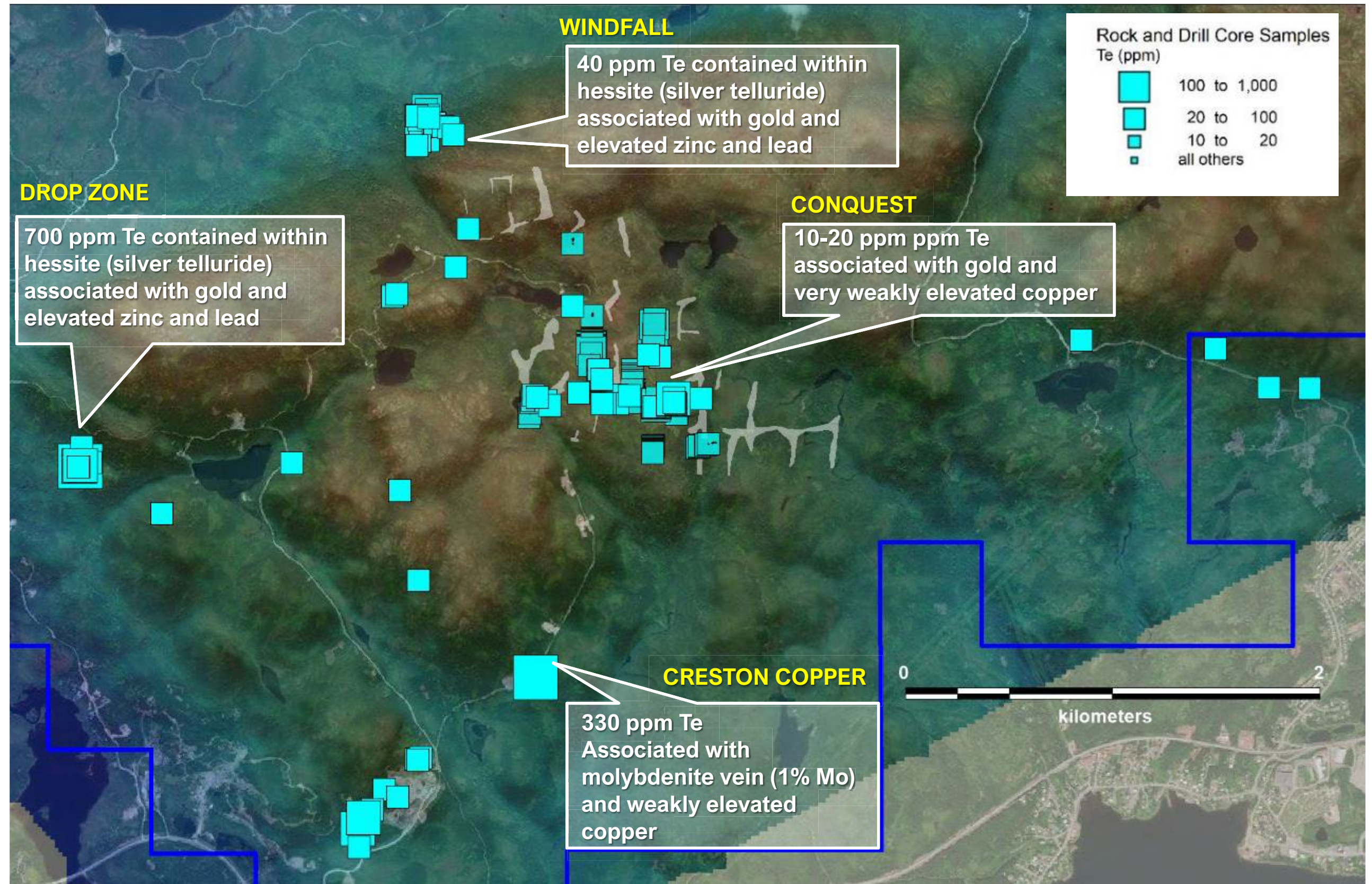
- High grade tellurium has been found at Drop Zone and Creston with extensive moderate grade in surface samples and drill core from Windfall and the Conquest Zone



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.

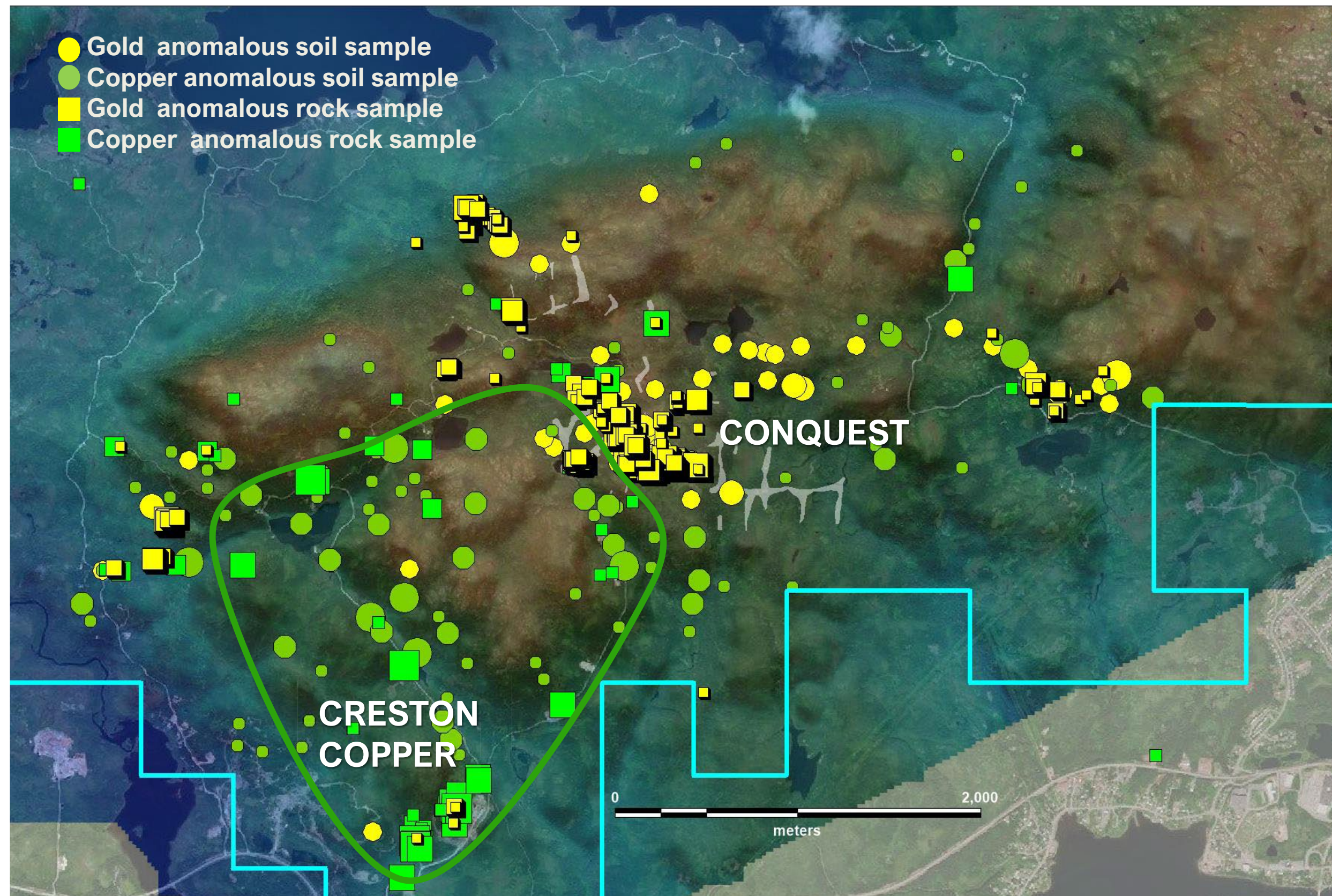


ROOT & CELLAR COPPER



“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



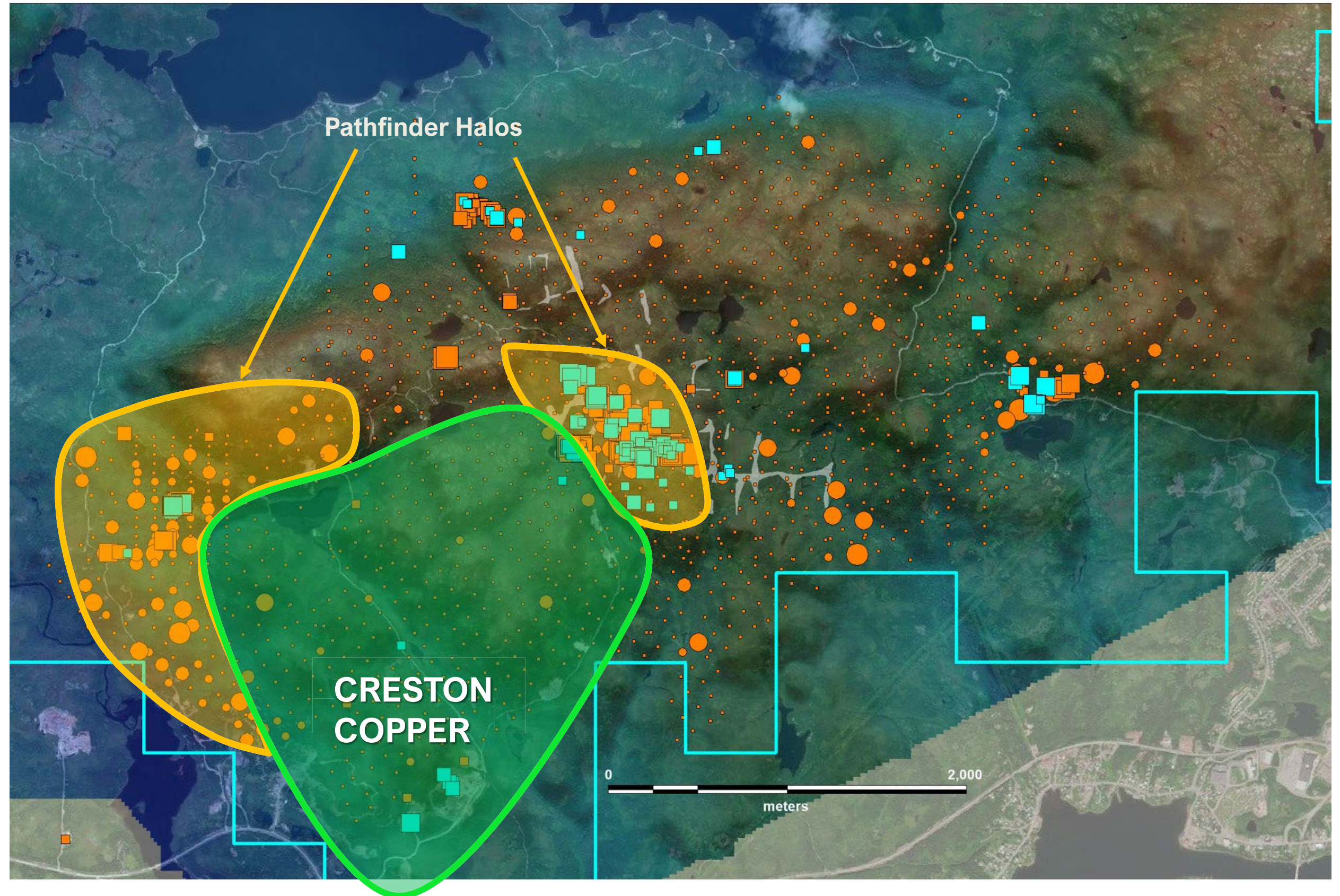
ROOT & CELLAR COPPER PATHFINDERS

- 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

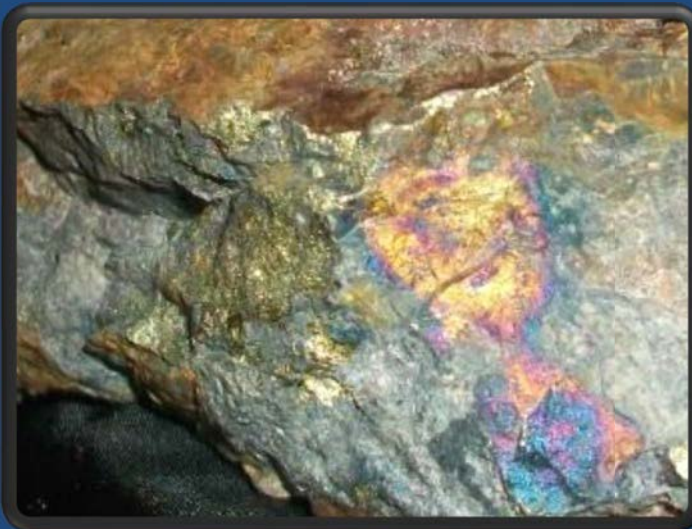


ROOT & CELLAR COPPER DEPOSIT MODEL

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

