

*Paris to Province...Terroir to Terranes*  
Emerging Research & Discovery Opportunities  
in the southern Gawler Craton

**INVESTIGATOR  
RESOURCES  
LIMITED**



**ASX : IVR**

John Anderson – Managing Director

*South Australian Exploration & Mining Conference*

11<sup>th</sup> December 2015

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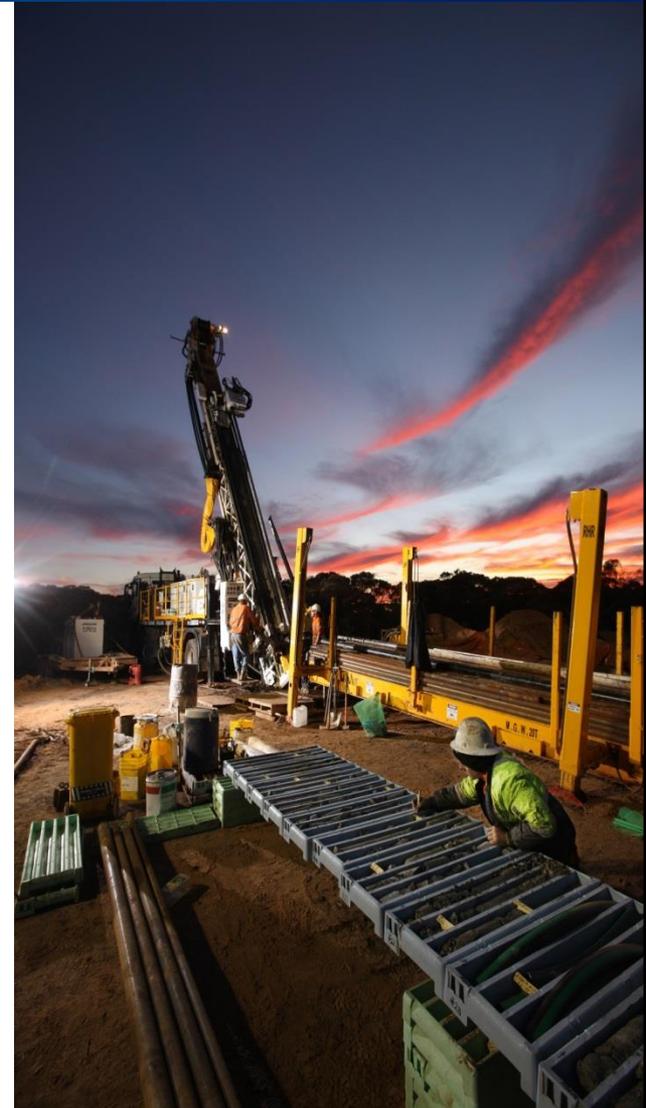
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## COMPETENT PERSONS STATEMENT

The information in this presentation relating to exploration results is based on information compiled by Mr. John Anderson who is a full time employee of the company. Mr. Anderson is a member of the Australasian Institute of Mining and Metallurgy. Mr. Anderson has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Anderson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this presentation that relates to Mineral Resources Estimates at the Paris Silver Project is extracted from the report entitled “Upgraded Paris resource estimate: 60% increase to 33Moz silver” dated 9 November 2015 and is available to view on the Company website [www.investres.com.au](http://www.investres.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.





## Capital Structure

ASX listed since 2007	IVR
Shares (ordinary)	462.3M
Options (Listed)	114.2M
Options (unlisted)	20.6M
Share Price (7 Dec 2015)	1.0c
Options Price “ “ “	0.2c
Market Cap (A\$m)	\$4.6M
Cash (30 September 2015)	\$2.4M

## Share Register as at 7 December 2015

CITIC Australia (Since IPO 2007)	14.5%
Board & Management	2.3%
Top 20	35.5%
Total shareholders	3,309

## Board & Management

Roger Marshall OBE	Chairman
Bruce Foy	Non Exec Director
David Jones	Non Exec Director
John Anderson	Managing Director
Peter Harding-Smith	CFO/Company Secretary
Alex Thin	Commercial Manager

## Offices

Corporate - Toowong in Brisbane (Qld)  
Operations - Norwood in Adelaide (SA)



***Maintained persistent approach in the southern Gawler Craton with emphasis on scout drilling & good geology as a platform for collaborative research & scientific exploration***

- 1. 60% upgrade of Paris Inferred silver resource to 33Moz at same robust grade; shallow bulk mining & high-grading possibilities**

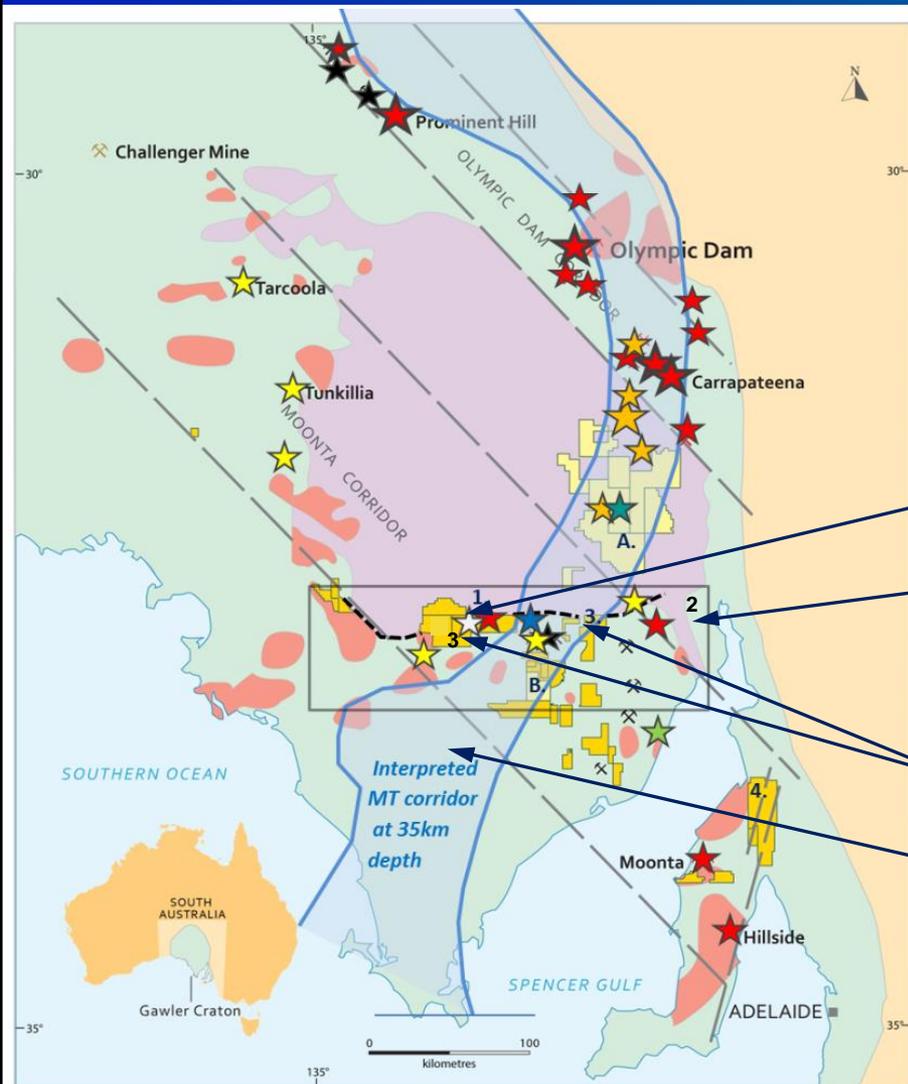
***Also applying knowledge & proprietary datasets to low-cost value-adding of flow-on ideas and targets:***

- 2. Associated larger silver & skarn/porphyry copper potential in wider Paris-Nankivel minerals system**
- 3. Nickel intersections near Paris:- prospective Archaean? basement**
- 4. New government geophysical research firms IVR's geographic focus & opens up regional potential for copper and nickel secured by recent IVR pegging**

***Major geological resets are revitalising SA's development opportunities***

# Exploration focus on the southern Gawler Craton of SA

## *Geological resets are revitalising the discovery potential*



### HILTABA DEPOSITS

- ☆ Silver
- ★ Lead, Zinc
- ★ Gold
- ★ Iron
- ★ IOCG/skarn/lode Copper
- ★ Uranium

### COVER DEPOSITS (Remobilised Hiltaba metals?)

- ★ Lead, Zinc
- ★ Copper
- IVR and JV tenement
- New tenement applications

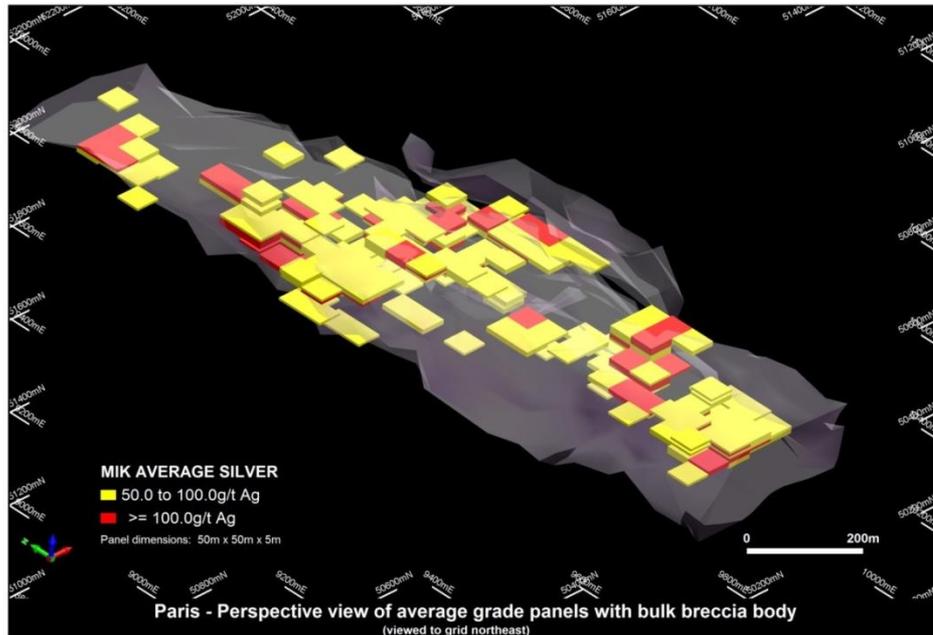
1. **2011 Paris silver discovery & revised 2015 resource (33Moz silver)**
2. **Concept of Uno Province** with shallow-covered epithermal deposits & related intrusive systems including possible porphyry copper of near Olympic Dam age
3. **Nickel potential** in Hiltaba mafic intrusives & extensive Archaean? basement
4. **Tectono-metallogenic Architecture:-** Breakthrough government Magneto Telluric (MT) research: interpreted corridor connecting IOCG & Uno Provinces prompted new tenement applications: A Stuart Shelf B Fairfield  
NW-oriented horst uplifts:- prospective for hydrothermal centres & exhumed prospective older basement

# Revised Paris silver Inferred Resource (November 2015)

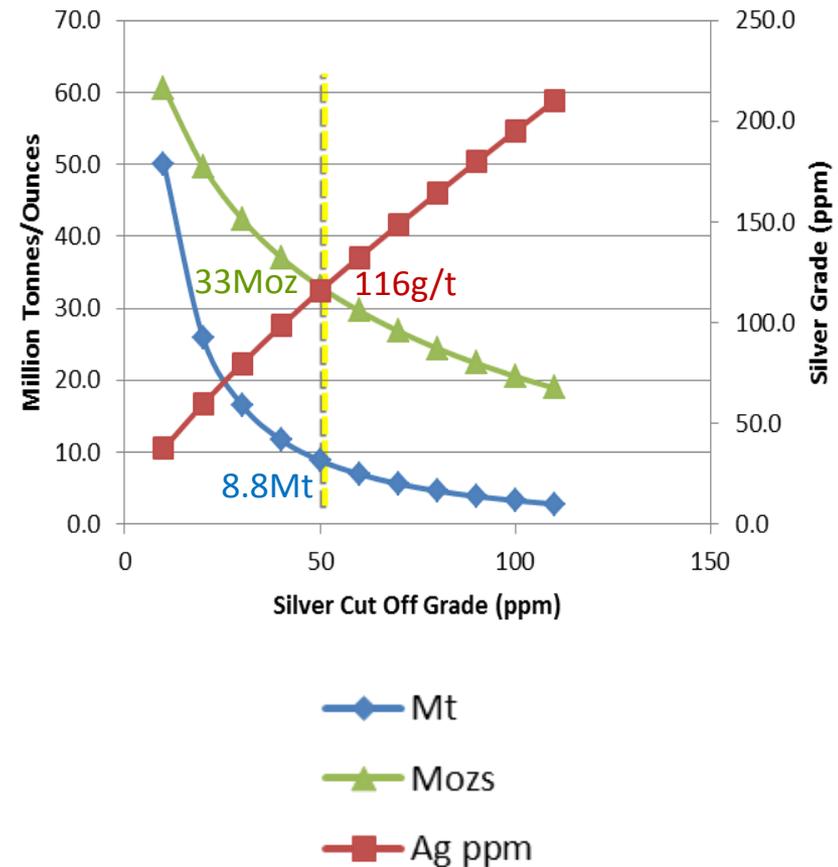
8.8Mt @ 116g/t silver for 33Moz using 50g/t silver cut-off



Oblique perspective view looking grid northeast representing distribution of >50g/t average silver grade blocks  
(long axis of deposit is about 1.5km long)

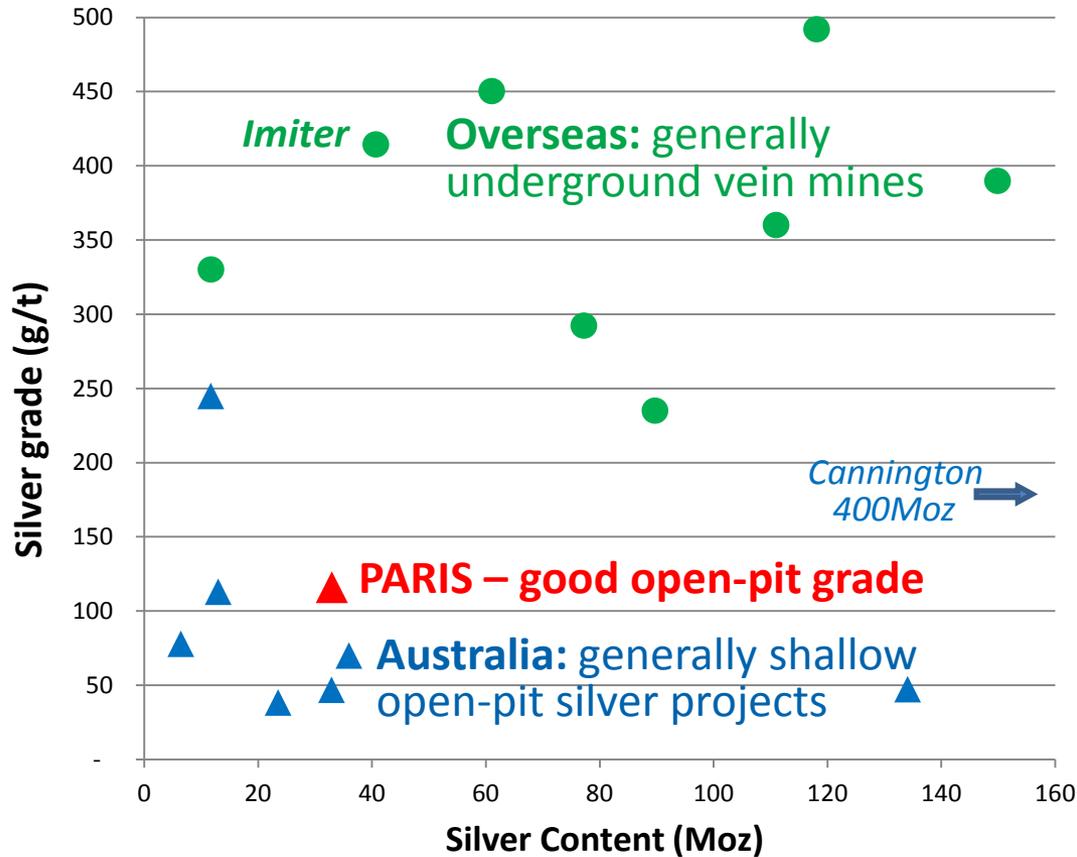


## Tonnage-grade curves



# Silver deposit comparison: \*

*Paris is a competitive silver project with grade & ounces*



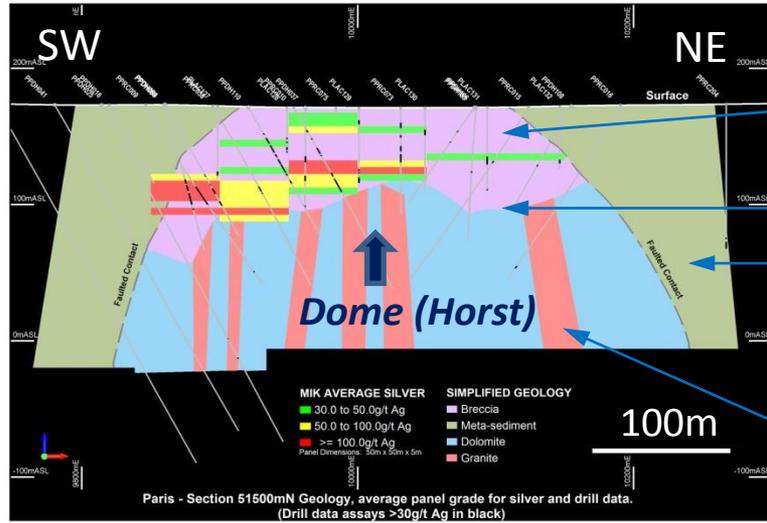
\* Based on current published resources & reserves;  
Silver contents only

- 33Moz silver
- 116g/t silver grade
- Perceived mining advantages:
  - ✓ Shallow – open-pit
  - ✓ Bulk mining of breccia host
  - ✓ Soft dig in altered host
  - ✓ Early high-grading options
- Good preliminary metallurgy
- Potential for deeper higher-grade Imiter-style deposits near Paris

***Investigator's 2016 Priority is converting the Paris resource to Indicated & development studies***

# Paris silver deposit: First pointers to a porphyry association

## *An Intermediate Sulphidation epithermal breccia*



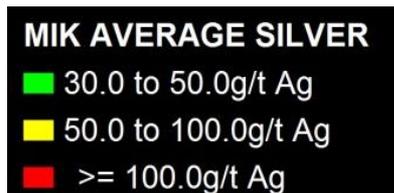
### Intermediate sulphidation attributes

- Volcanic breccia host with sericite/clay/manganese carbonate alteration
- Unconformity position at base of volcanics
- Graphitic basement wallrocks

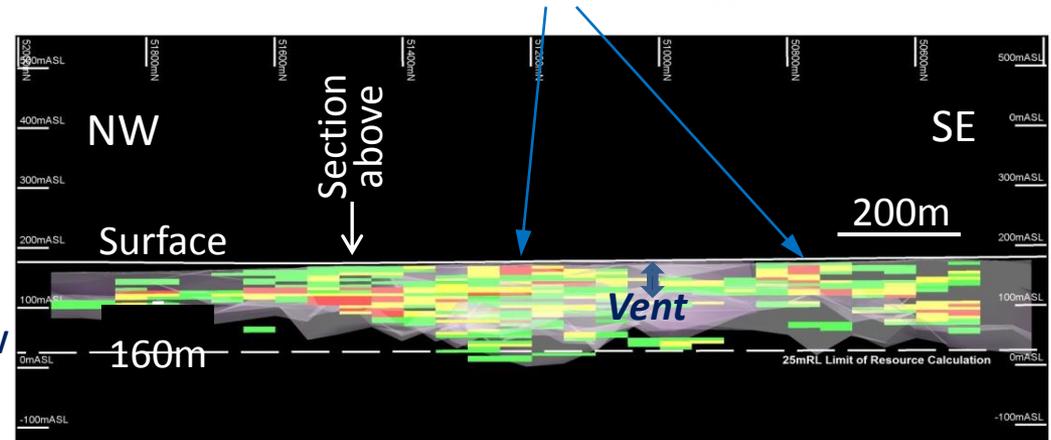
### Horst\* focus for intrusive dome & vent

- Granite dykes intruding dolomite (blue)
- High-grade breccias draped around dome/vent (starter pit opportunities)

Section view of average grade block model panels within purple breccia host at base of volcanics

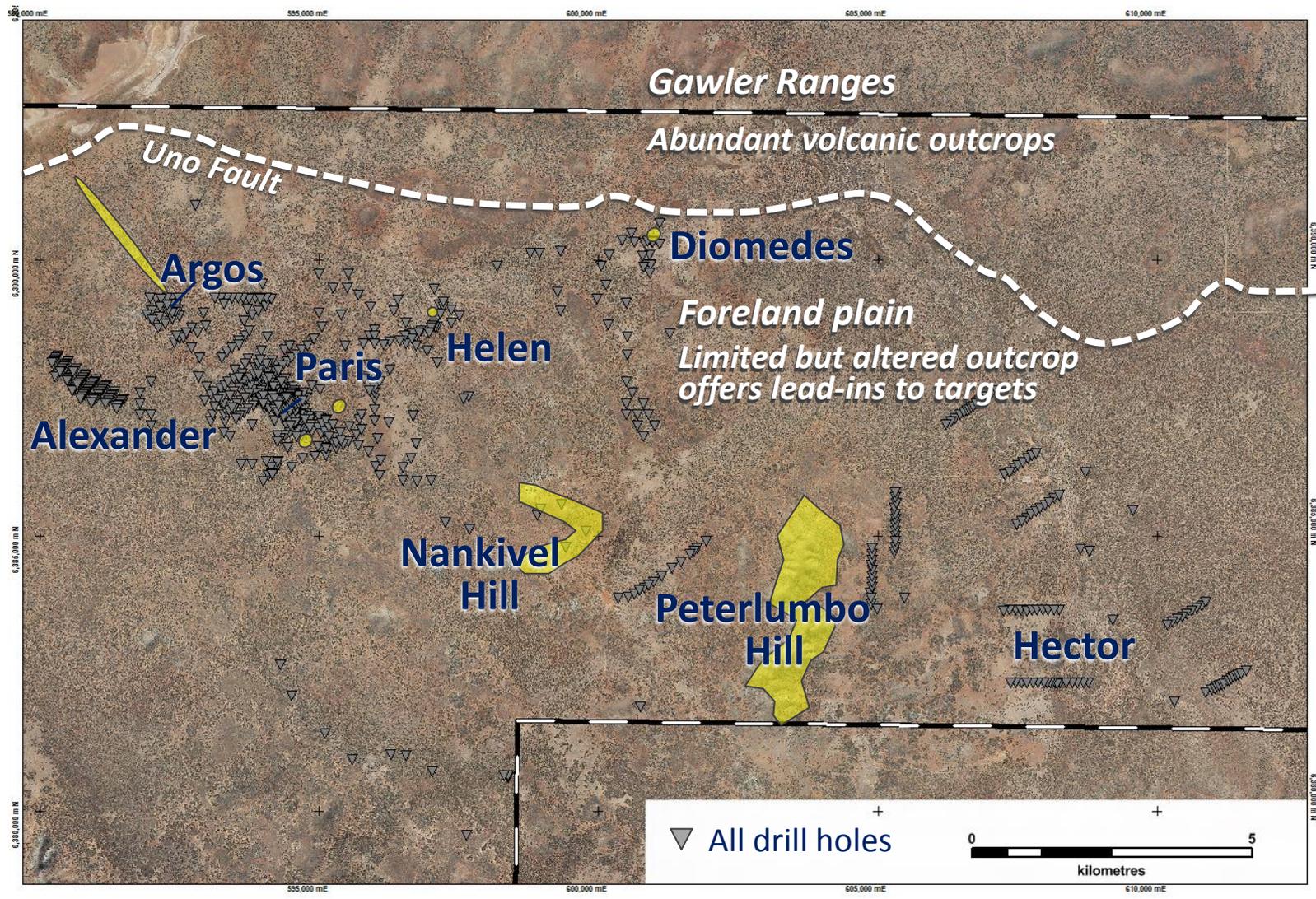


Side-on perspective view

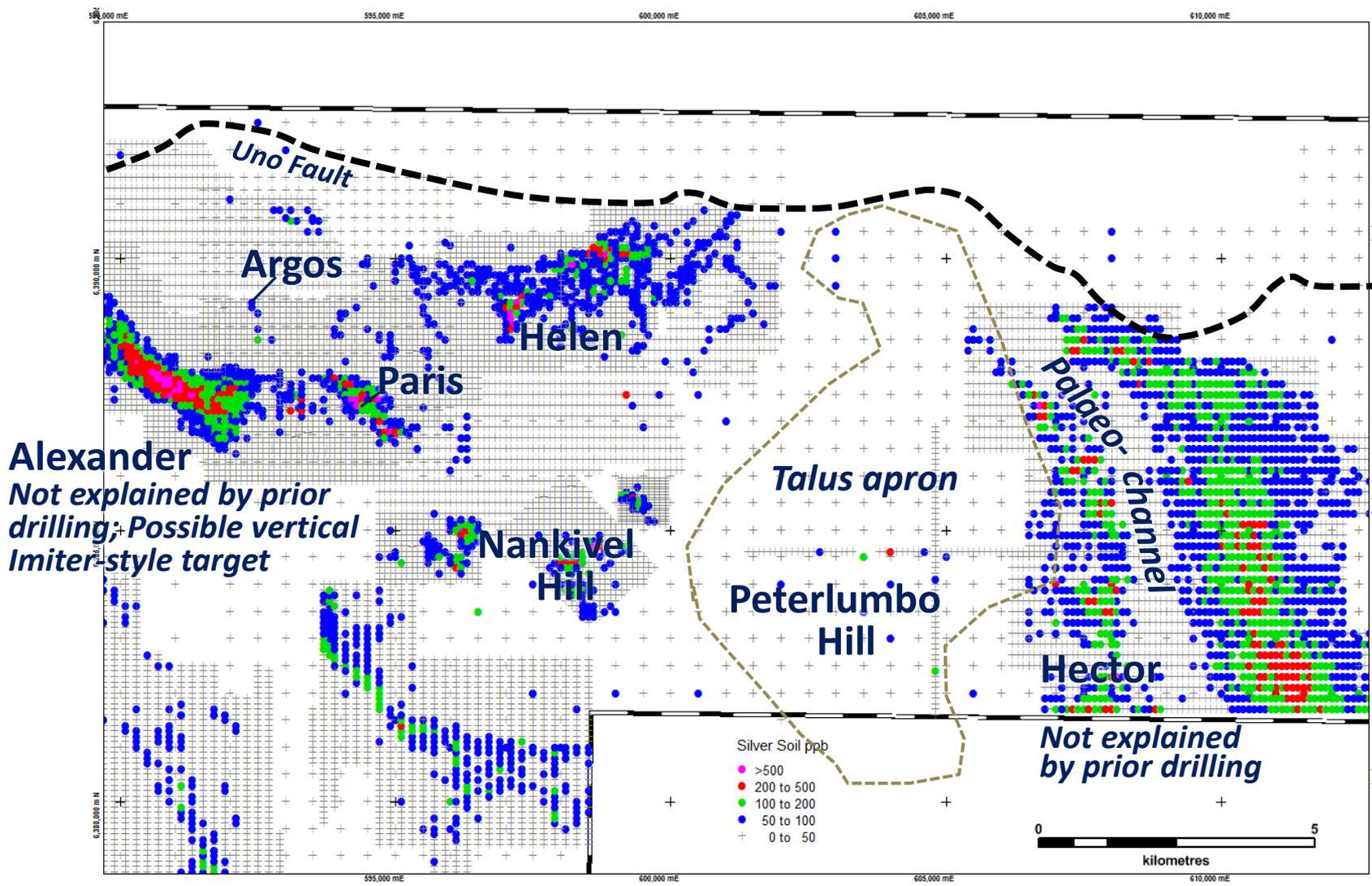


\*A horst is an uplifted block like a piston

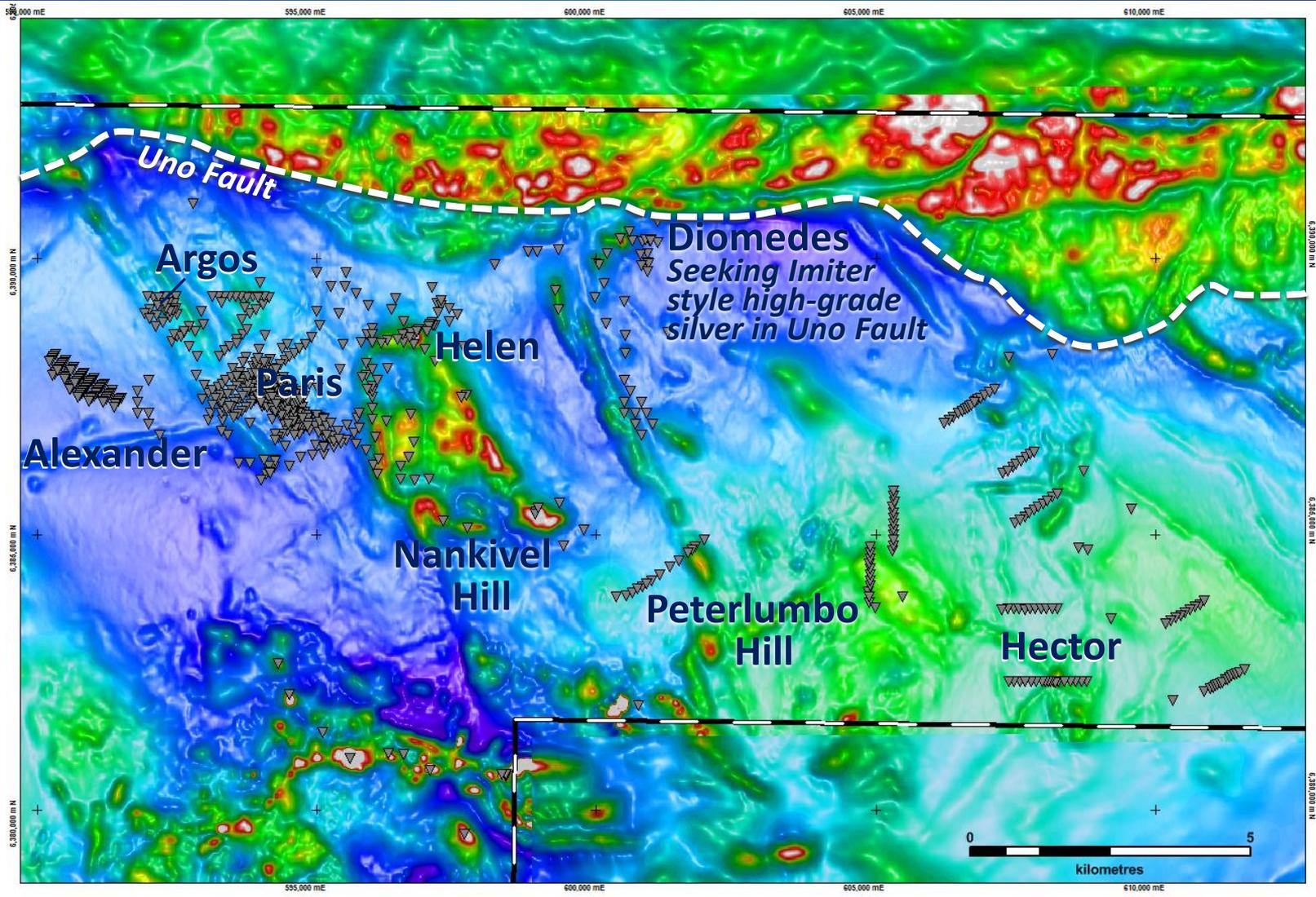
# Excellent surrounding exploration potential: Anomalous limited outcrop ●; *Reliance on nose-to-ground mapping & scout drilling*



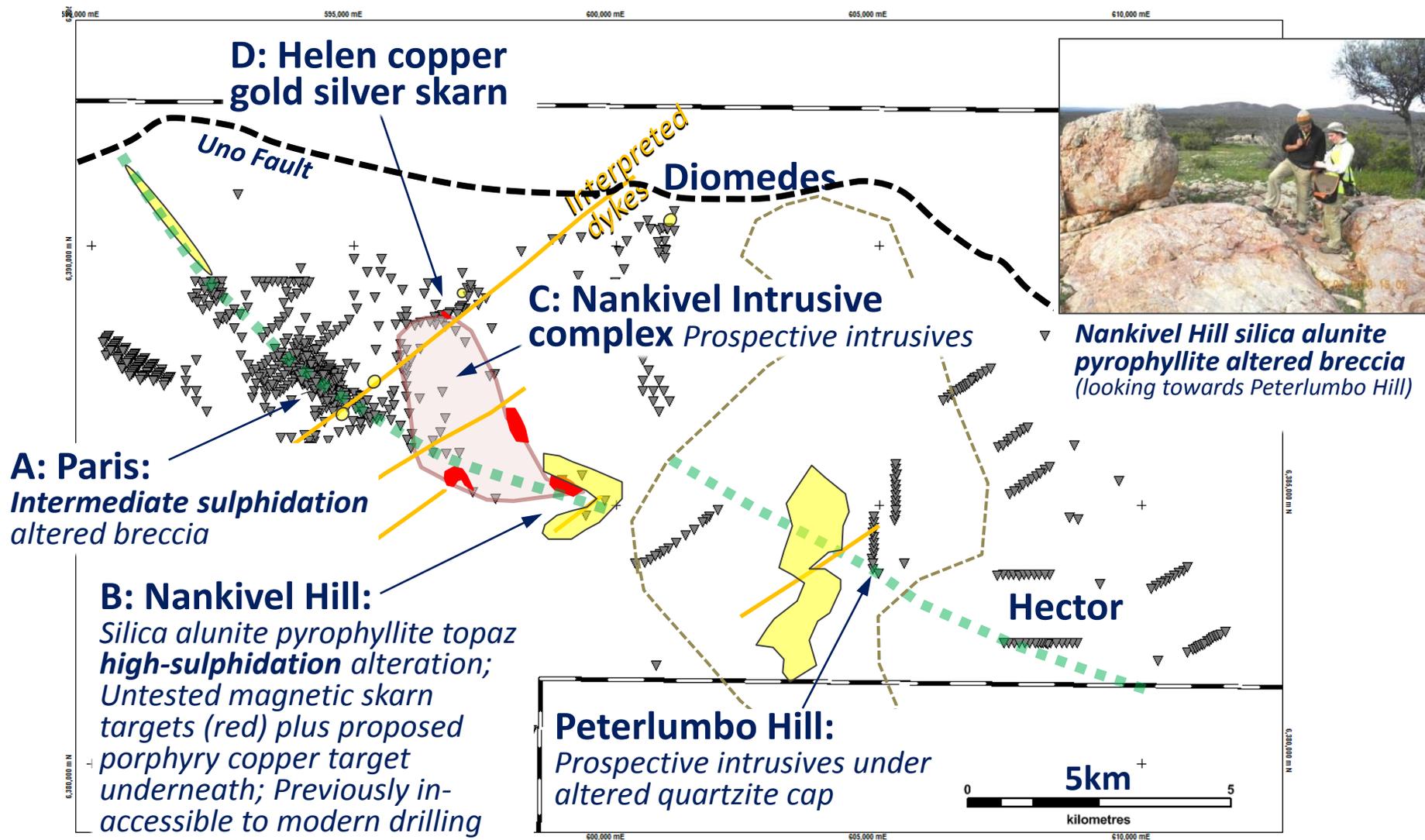
Initially targeted by empirical soil geochemistry (e.g. silver): Limited by variable transported cover e.g. talus & alluvium subdue soil response



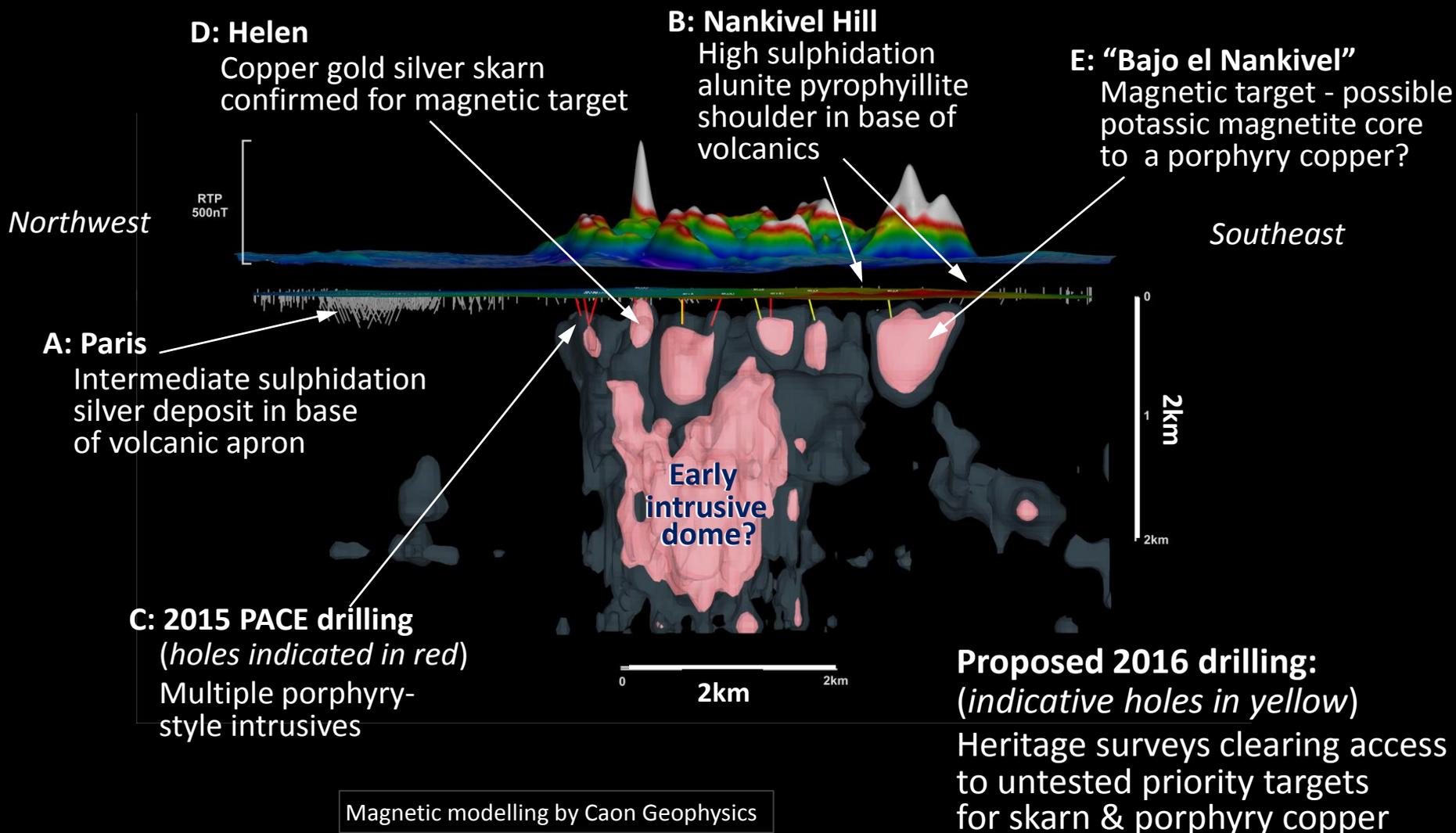
# Magnetics - Additional undercover view of faults, intrusives & basement: *IVR Modelling confirms prospective geometry of Uno Fault*



# Paris-Nankivel mineral system: Prospective intrusives & alteration zoning point to targets along structural (horst) trend



# Paris-Nankivel mineral system: Perspective side-on view of magnetic model/drilling showing key porphyry indicators & targets



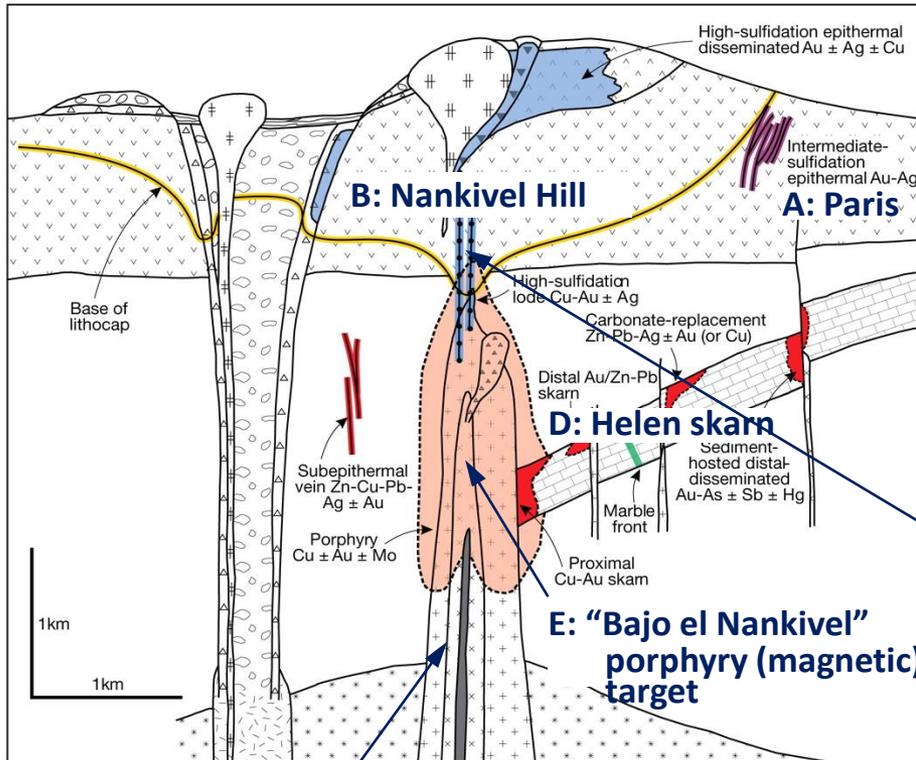
# Case for porphyry copper targets in Paris-Nankivel system

## Strong comparison with standard porphyry model

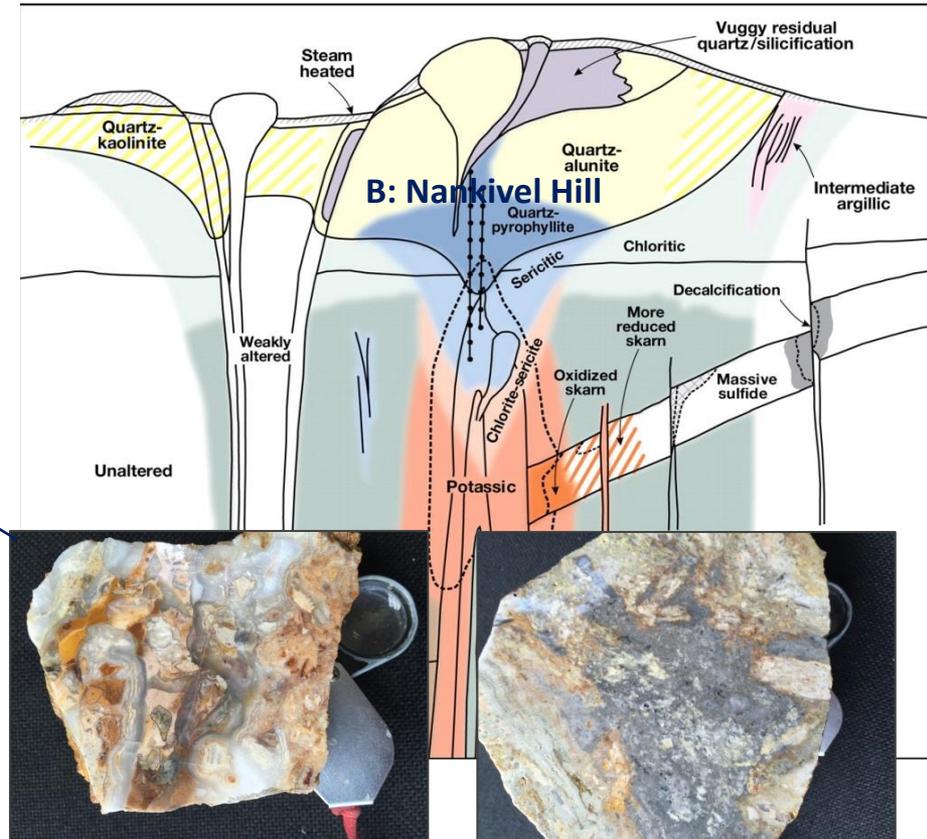


### Definitive porphyry diagrams from Sillitoe *Economic Geology* (2010)

#### Geology & deposits



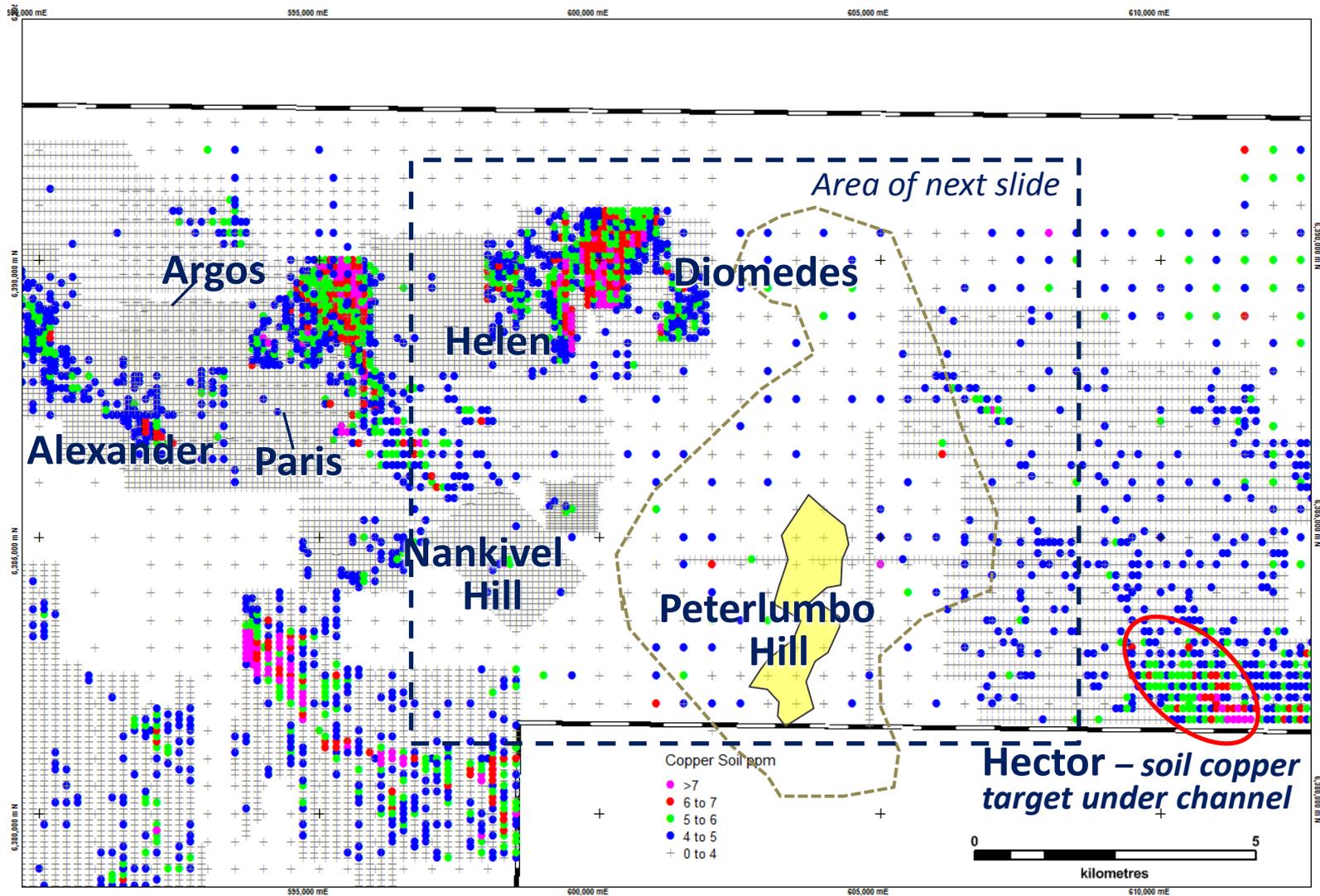
#### Alteration mineralogy



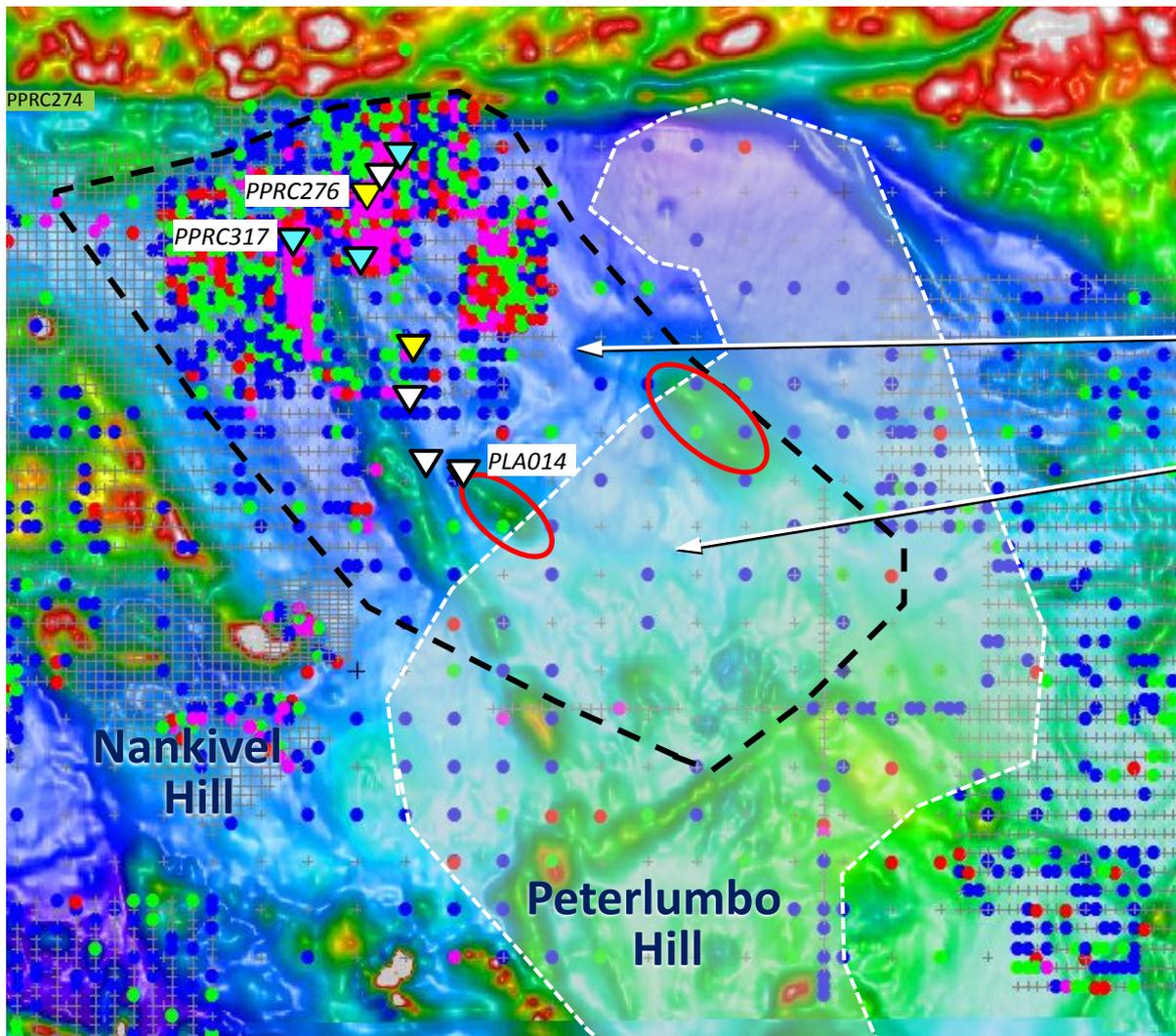
**C: Multiple porphyry-style intrusives along connecting structure**

**B': Sulphide mineralised epithermal breccia lodes cutting Nankivel Hill**

# Researching our extensive datasets: e.g. copper-in-soils took us into the Diomedes area & is inviting us back to Hector



# Diomedes basement nickel opportunity: Between wide-spaced scout holes & under cover in Archaean? ultramafics



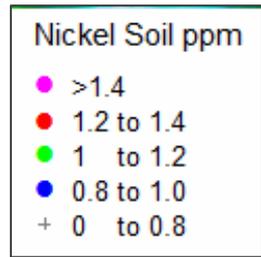
## 2011 & 2014 drill holes

- ▽ Shallow anomalous nickel intersections to 0.4% Ni
- ▽ plus ultramafic confirmed with petrology
- ▽ plus ultramafic & fresh sulphides

Interpreted mafic/ultramafic (possibly Archaean) basement enclave (*exhumed in horst?*)

Talus cover reduces soil response in southern part of target area

IVR is assessing how to explore & drill this large area for nickel



○ Prospective magnetic anomalies

PPRC317 – holes referred to in next slide

5km

# Case for nickel targets at Diomedes: Widespread ultramafic, sulphide & nickel intersections

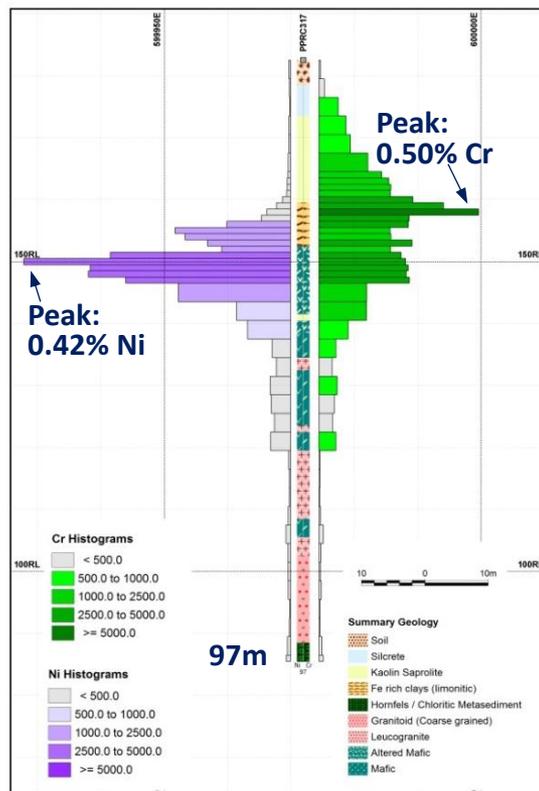


Shallow Intersections are interpreted as primary with little lateritic enrichment

Petrology identifies widespread metamorphosed ultramafic host with disseminated fresh iron, copper & probable nickel sulphides

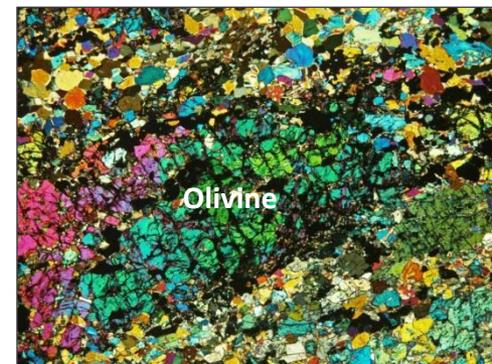
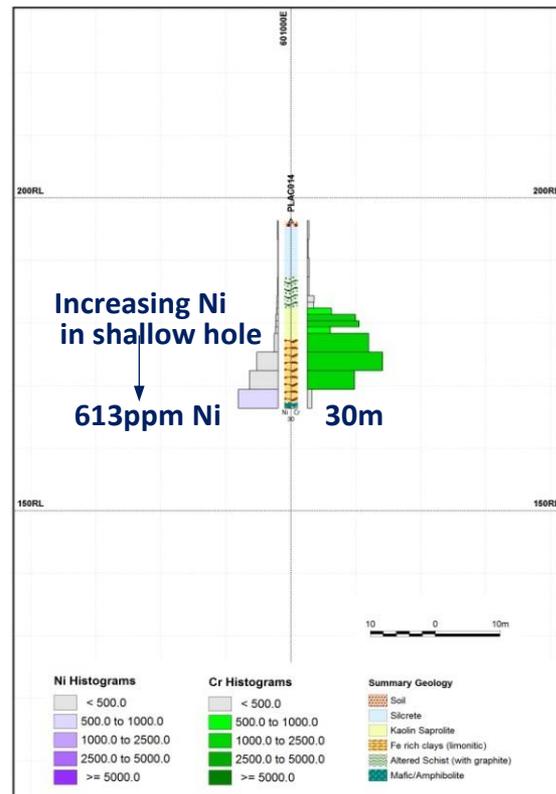
## PPRC317

Residual Cr values shows likely primary with upper nickel depletion



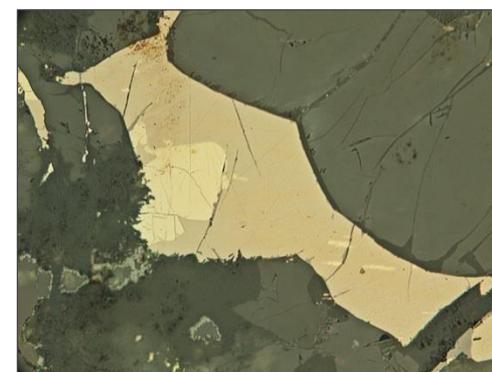
## PLAC014

Shallow drilling 2km south shows similar target profile



PPRC276 (54m)

1 mm



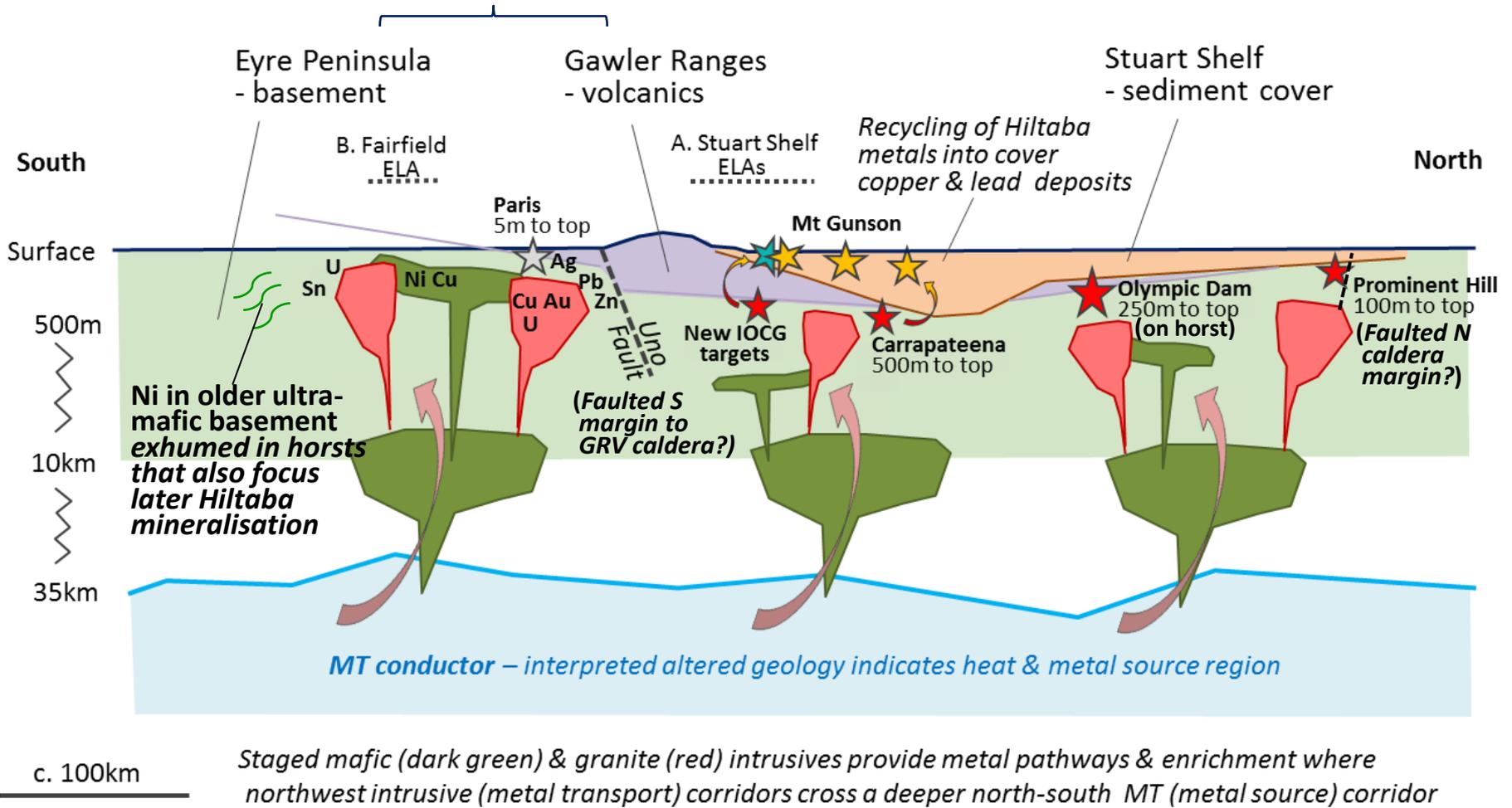
Petrology by Doug Mason

0.05 mm

# Pulling the emerging model together along the new MT corridor: Interpreted long-section showing vertical tectono-metallogenic concepts



Uno Province – 1590 or 1620Ma subduction tectonics? (e.g. Betts et al., 2009)



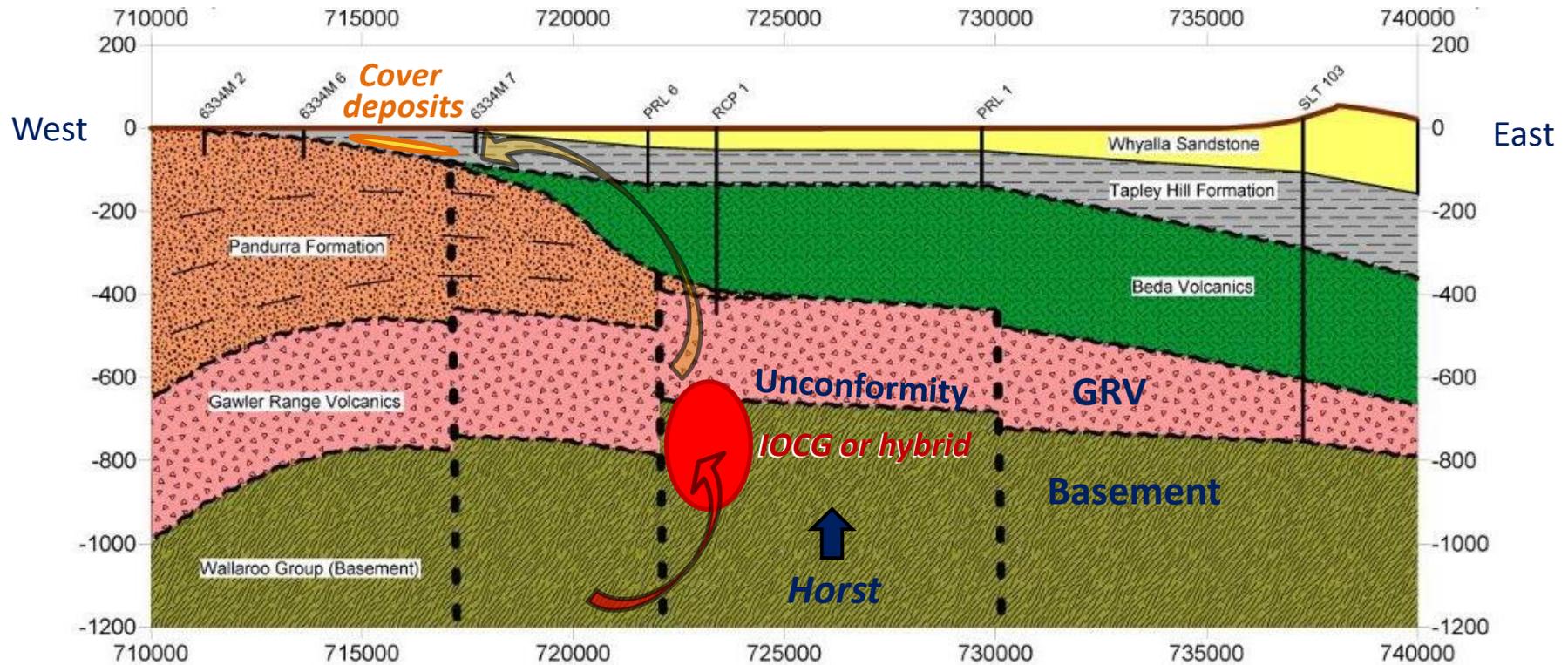
# Review of IOCG targets under Stuart Shelf revitalised by MT Corridor

## Seeking untested gravity anomalies near source structures



**Example section:-** Horst block interpreted from past drilling & public geophysics lifts the target GRV unconformity within 700m of the surface & provides a final stage fluid pathway

### MT corridor



10:1 vertical scale exaggeration; Geophysics interpretation by Hutchens Geophysics



## Paris is an intermediate sulphidation epithermal breccia of near Olympic Dam age



- IVR initial model, iterative relogging, mineralogy, alteration chemistry
- quantitative mineralogical, HyLogger spectral & dating studies (<sup>c</sup>UofA; <sup>c</sup>DSD)

## Paris-Nankivel mineral system has potential for larger Imiter Ag & HS/skarn/porphyry Cu deposits



- mapping, drill sample platform, pathfinder analyses & vector research (IVR)
- mapping, HyMapper spectral, intrusive dating studies (<sup>c</sup>DSD)
- PACE drilling of multiphase intrusives (<sup>c</sup>DSD)

## Uno Province has a unique tectono-metallogenic character with a direct or transitional connection to the Olympic IOCG Province offering a spectrum of deposit styles with variable signatures

- Uno Fault is a mineralised margin to the GRV caldera (IVR modelling)
  - *Fault Reactivation & Mineralisation proposal* (<sup>P</sup>UofA)
  - *NS-oriented detailed seismic & MT lines across Uno Fault* (<sup>P</sup>DSD/UofA)
  - <sup>R</sup>*Processing of shallow level GA seismic to identify upper metal flow structures*
- Veracity & role of MT corridor - <sup>R</sup>AusLamp infill
- Syn (1590Ma) or pre-OD (1620Ma St Peters Suite) subduction tectonics (e.g. Betts et al., 2009)
- Wider epithermal/porphyry potential, porphyry-IOCG hybrids, Hiltaba & Archaean nickel
  - *Source to Spectrum proposal* (<sup>P</sup>UofSA/UofA/DSD)
  - <sup>R</sup>*Prospectivity drilling in southern Gawler Craton to characterise & micro-date intrusives & basement enclaves*
- Therefore area selection can be improved - the horst-MT fluid flow architecture will prioritise potential hydrothermal centres & uplifted prospective basement independent of diverse target signatures

*The best discovery opportunities are “under our feet” – THANK YOU*