

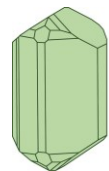
Very

# ^ Early Stage Gold and Base Metal Exploration, NE Tasmania

*a back to basics targeting approach*

J. Phillips

(for Stellar Resources)



**JP GEOSCIENCE**  
EXPLORATION GEOCHEMISTRY

# Outline

- **Metallogenesis of NE Tas**
- **Stellar Resources NE Tas Tenement package**
- **Areas of Interest for Au and Sn Exploration**
- **Results to date**
  - Back Creek/Leura
  - Nabowla
- **Other High Priority Targets**
  - Pyengana
  - North Scamander

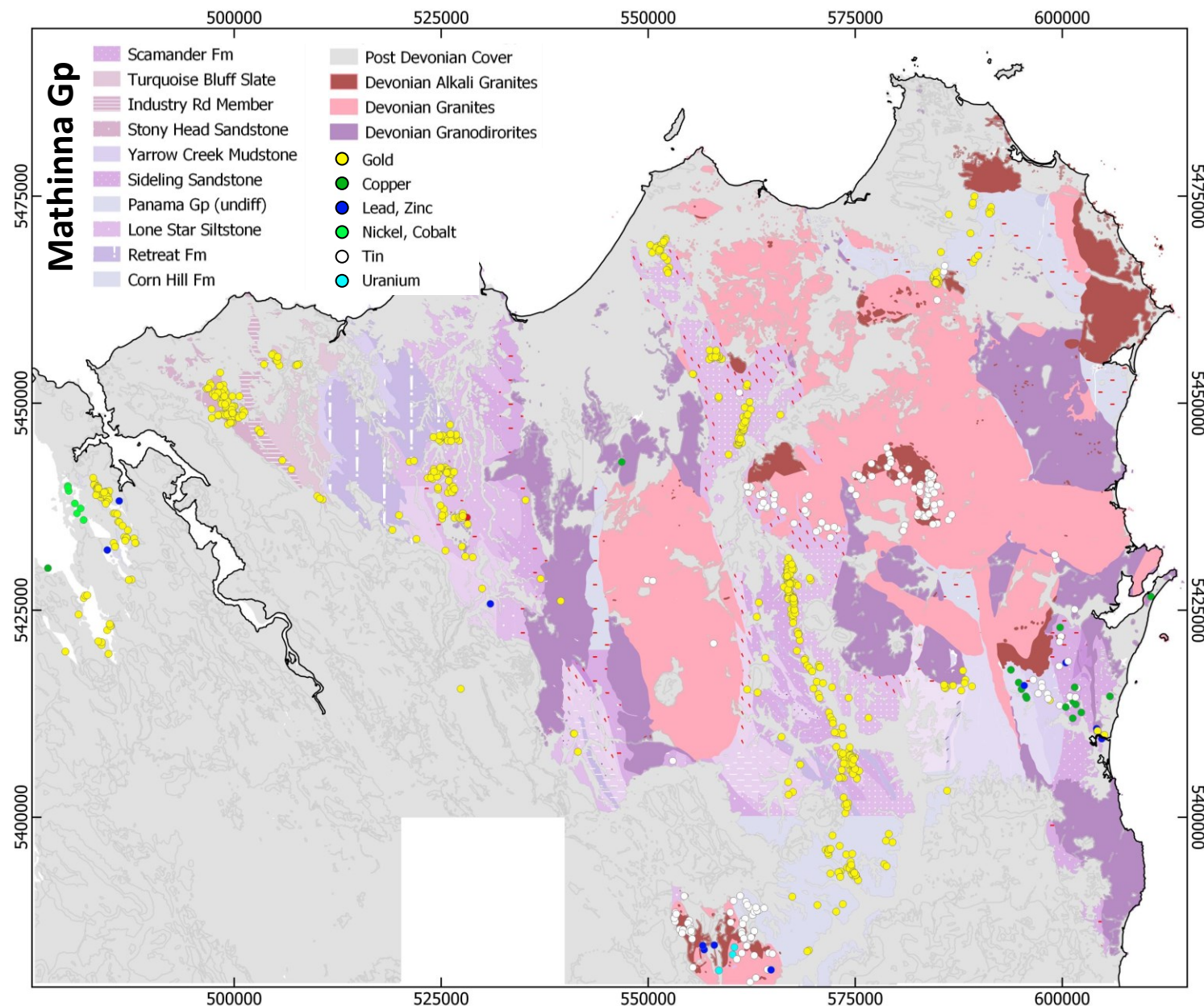


North Scamander  
NSD2 – 176m



# Regional Geology and Mineral Occurrences

1. Ord – Dev **Mathinna Beds**
2. NE/SW compression  
(**Orogenic Au**)
3. Intrusion of **granodiorites**  
(**Intrusion –Related Au**)
4. Intrusion of **S-type granites**
5. Late stage highly  
fractionated **alkali granites**  
(Granite Sn-W, Li)



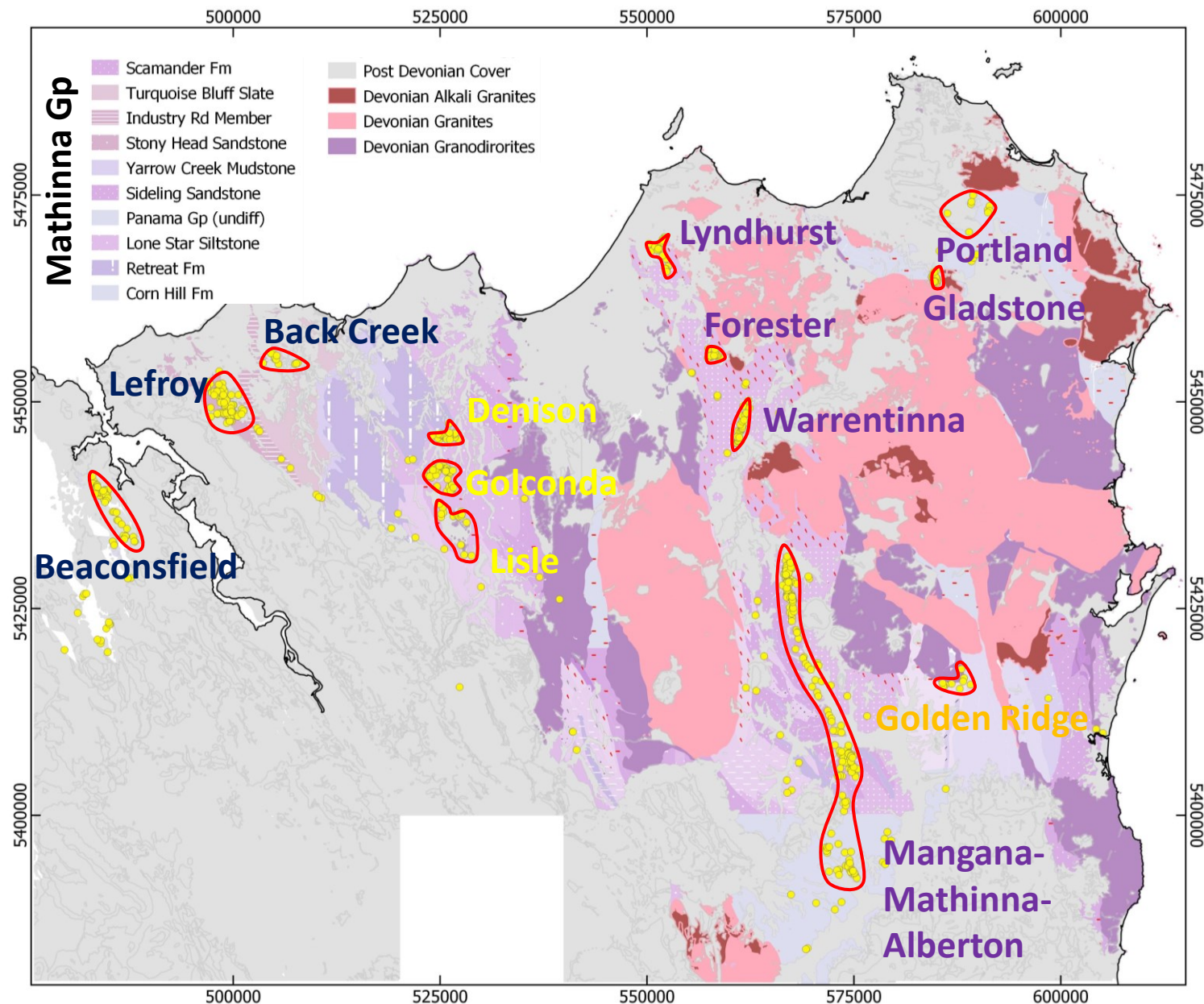
# Au Mineralisation in NE Tas

- **Orogenic Au**

- Metals are sourced from devolatilization of mafic rocks in the deep basement and focussed into structural traps during orogeny
- *Multiple structural styles in NE Tas*

- **Intrusion Related Au**

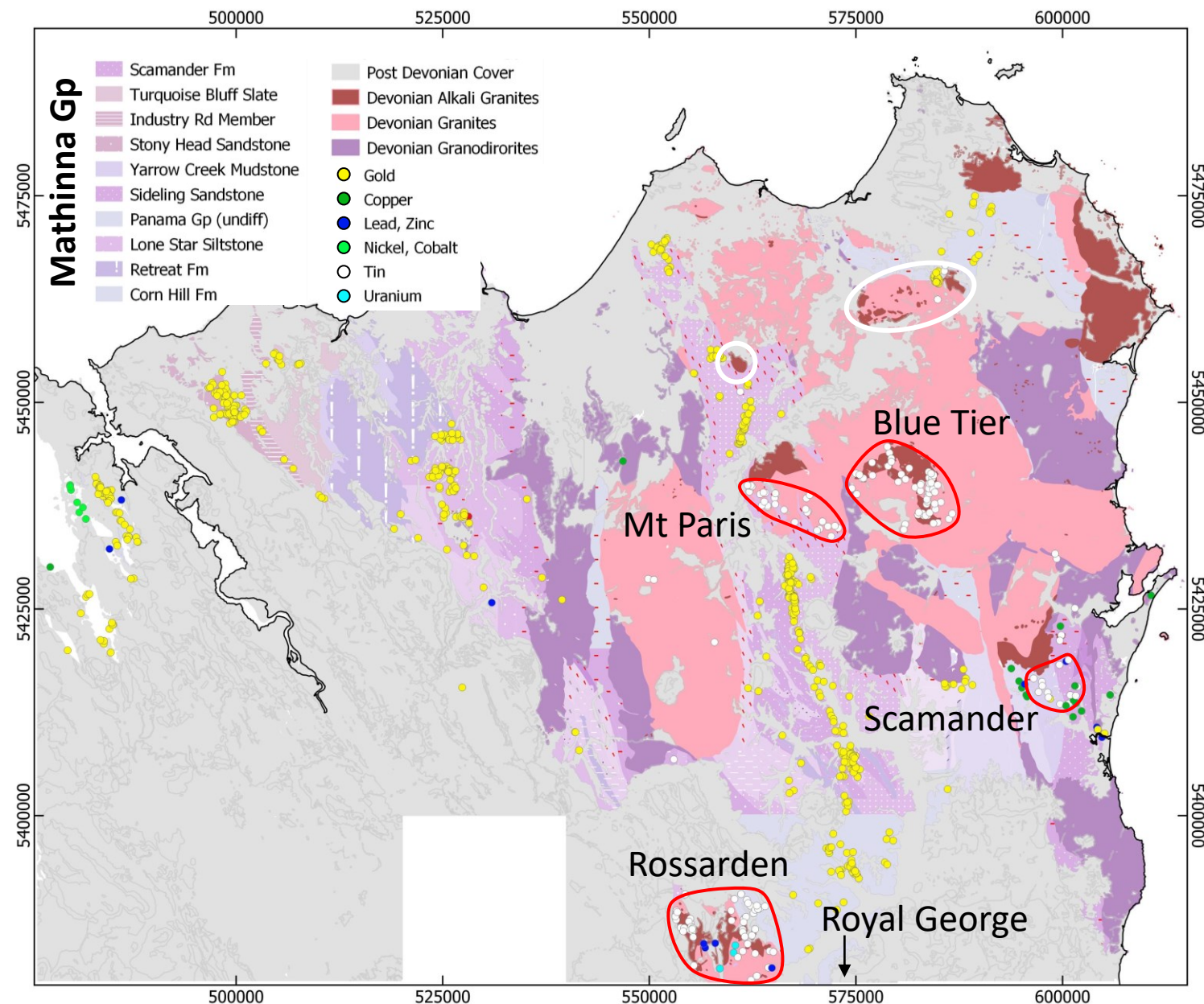
- Metals are sourced from an intermediate-felsic magma (granodiorite) and focussed along the margins as sheeted veins or stockworks in Mathinna host rocks
- *Variable magnetic characters*





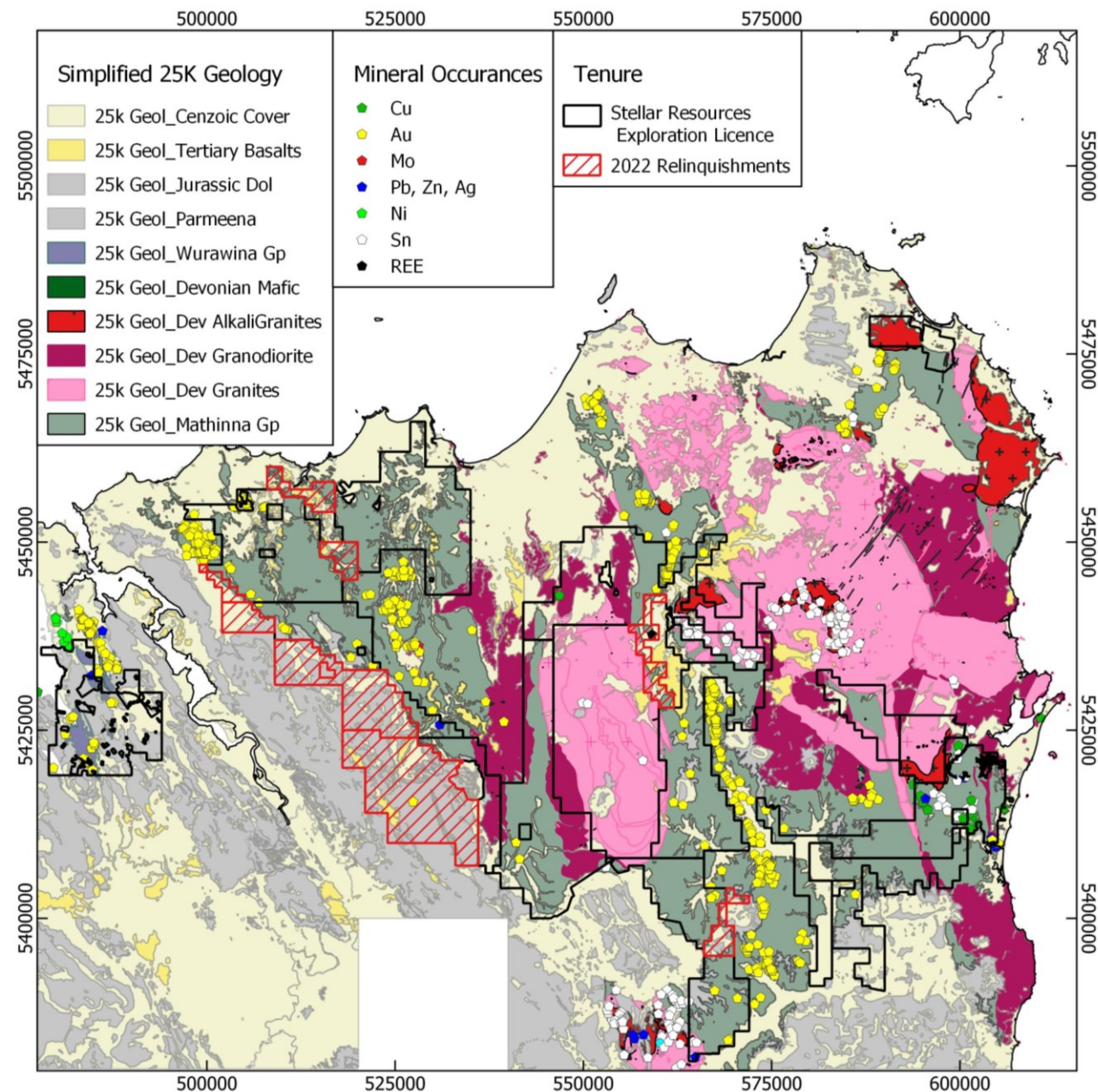
# Tin Mineralisation in NE Tasmania

- Tin – Tungsten mineralisation associated with late stage fractionated alkali granites
- Vein and disseminated deposits, no skarns
- Some districts, like the west coast, are well zoned with respect to metal occurrences
  - W → Sn → Cu → Pb-Zn-Ag
- Exposure level critical for preservation of Sn mineralisation



# Stellar Resources Tenure

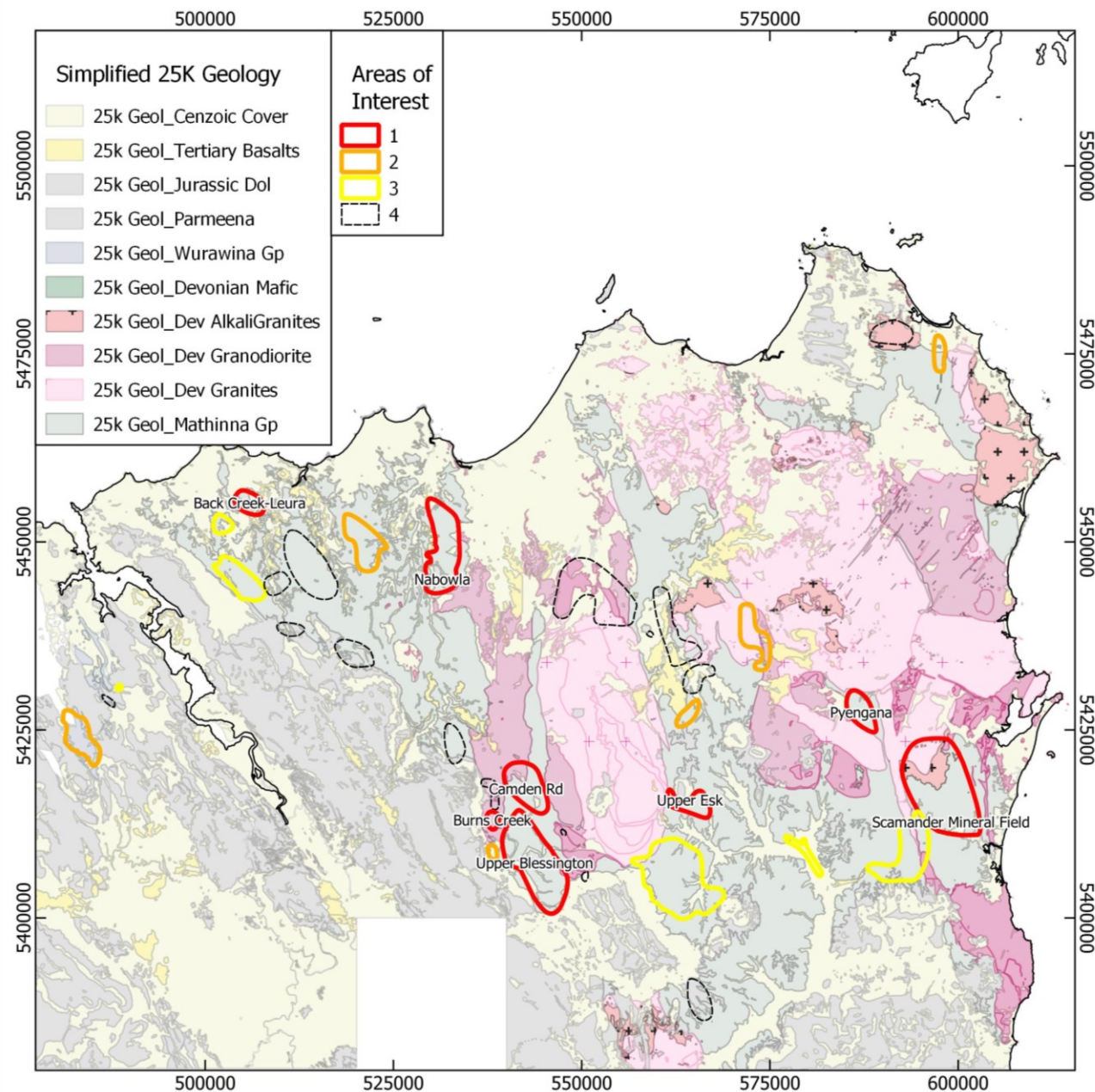
- **2019-2021 - Stellar Resources took up significant EL holdings over (~2,600 km<sup>2</sup>), generally off major districts**
  - Primary interest in Au
  - Some ground prospective for Sn
- Relinquished 25% over consolidated cover
- Q4 2021 - Early stage data review and identification AOI's
- Q1 2022 – Fieldwork begins





# Areas of Interest

- **~35 Identified – using basic, publicly available data - magnetics, gravity, stream sediments and rock chips**
- **Reconnaissance fieldwork, and/or access aspects have reduced the number of high priority targets to ~8**
- **Detailed surface geochemistry programs completed over 2 AOIs**
  - Back Creek – Leura
  - Nabowla

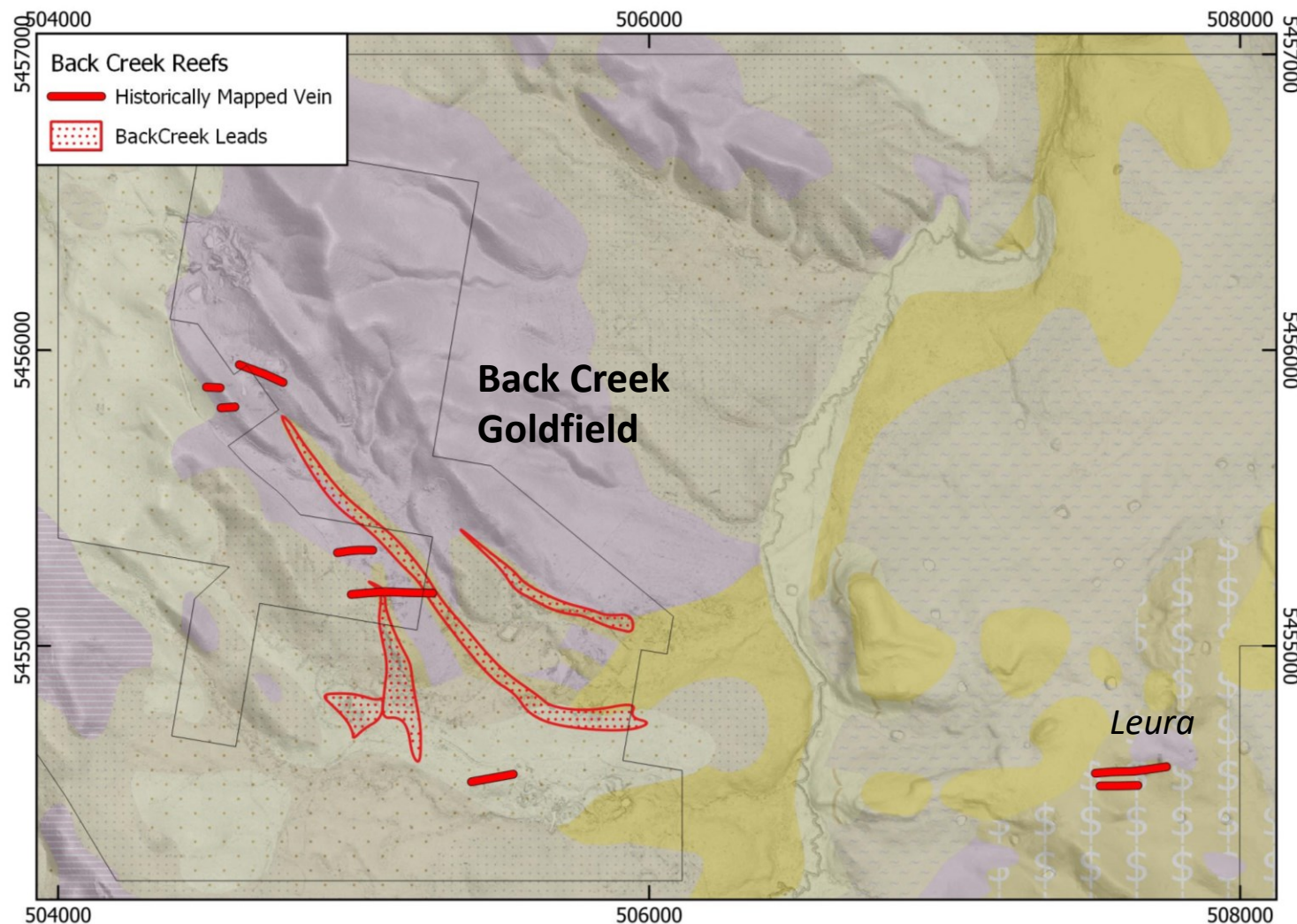


# RESULTS TO DATE



# Back Creek-Leura – Orogenic Au

- **Historic goldfield**
  - Most production from alluvial
  - Poorly mapped hard-rock reefs
  - Small ‘widows’ of basement in shallow (<10m) cover
- **Structurally identical to Beaconsfield and Lefroy**
- **Competing interests/tenure = No modern exploration**



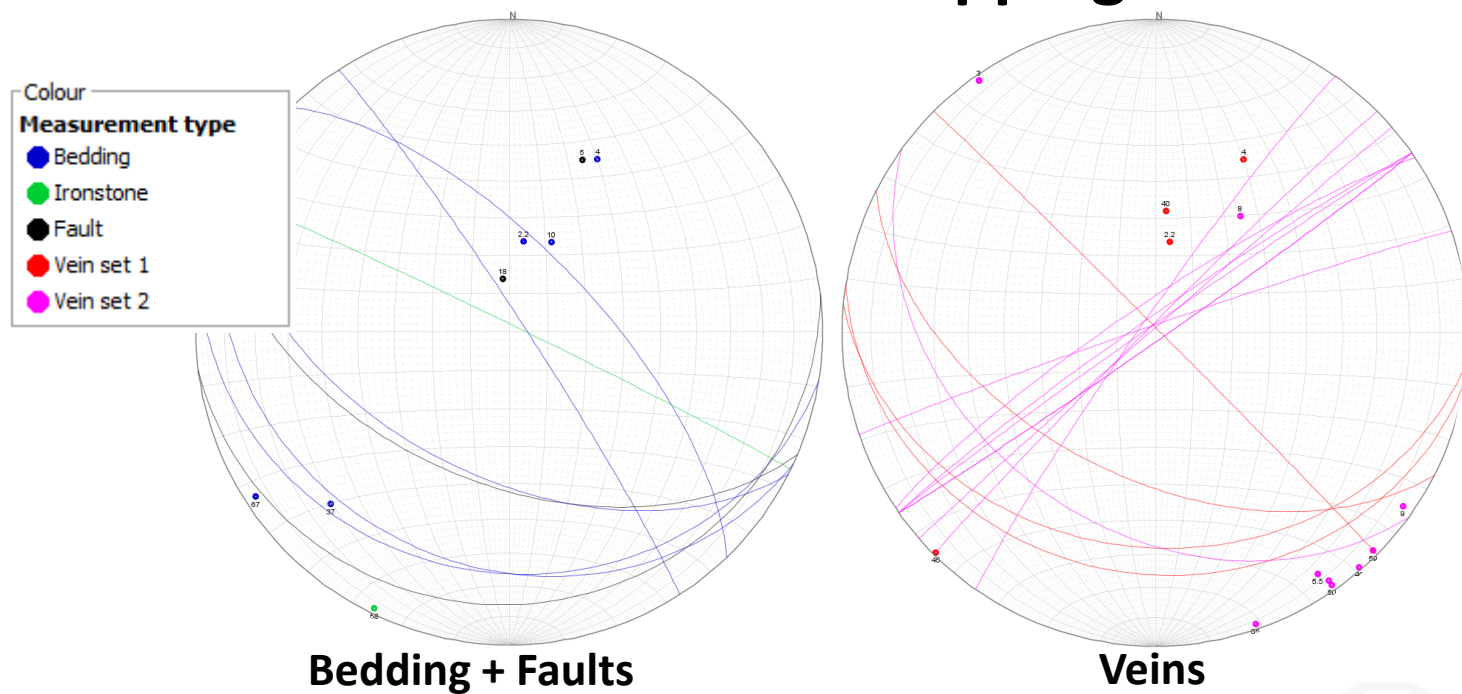


# Back Creek Reconnaissance Results

## Rock Chips



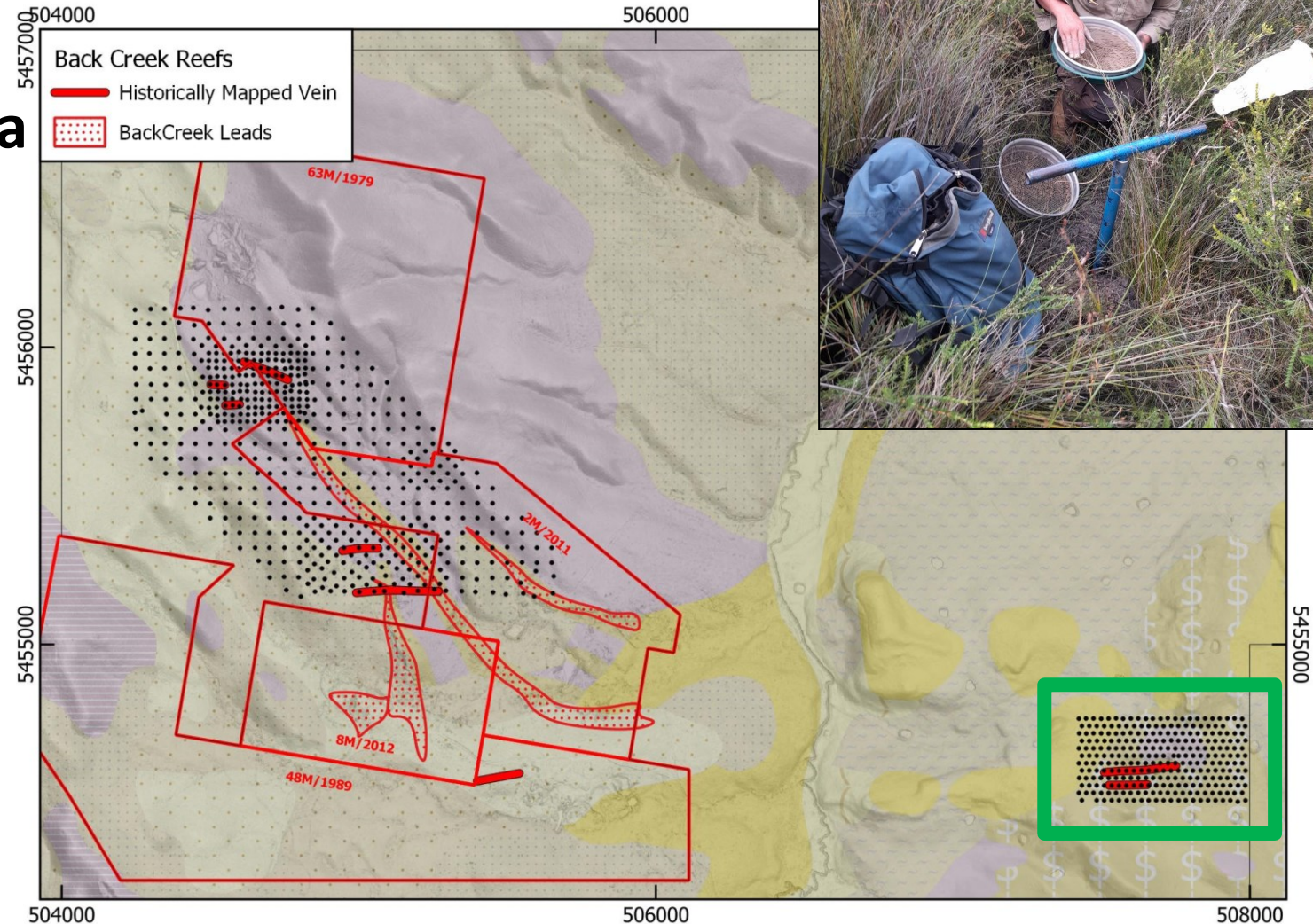
## Structural Mapping





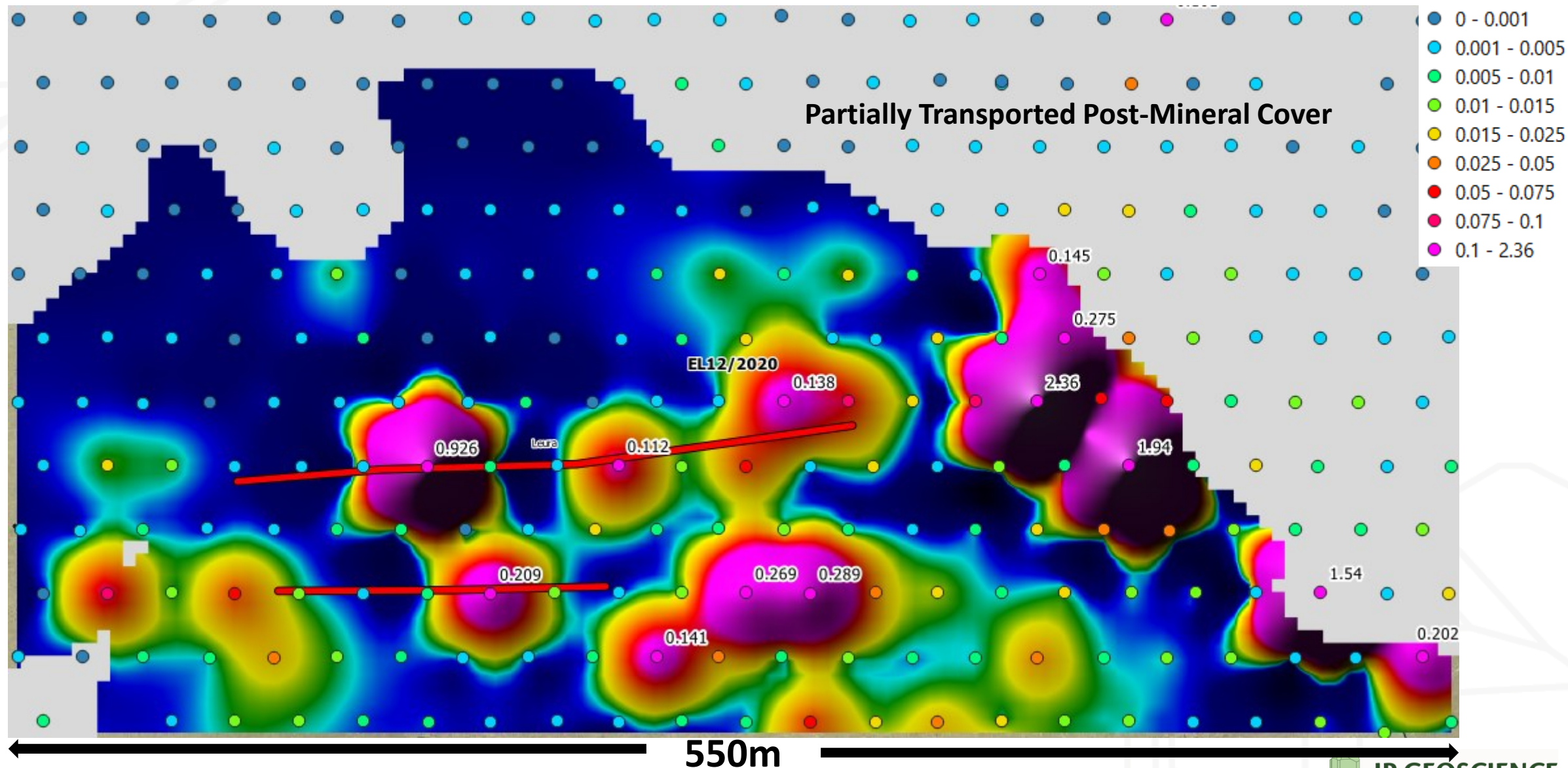
# Back Creek – Leura Soils

- Soil program conducted over Back Creek (inc MLs) and Leura Goldfields
- Back Creek results remain sensitive, SRZ in discussions with ML holders
- Leura results 100% SRZ



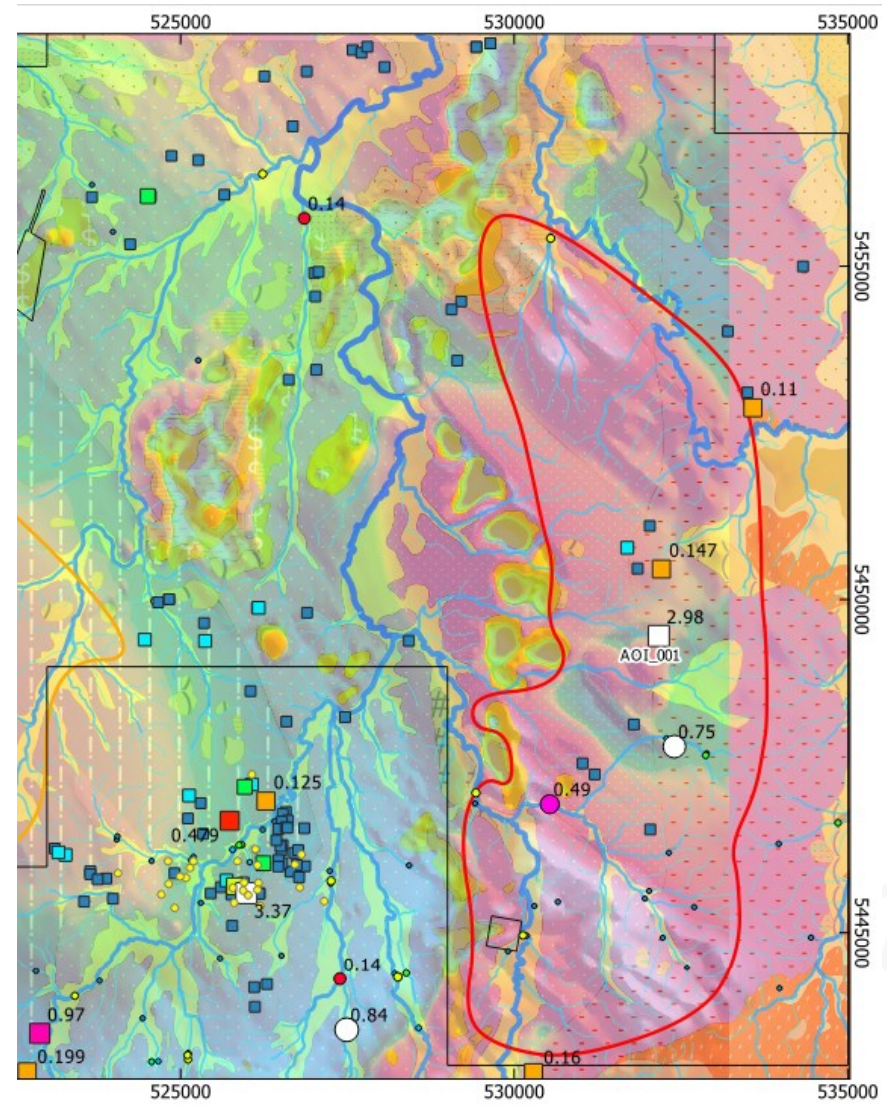
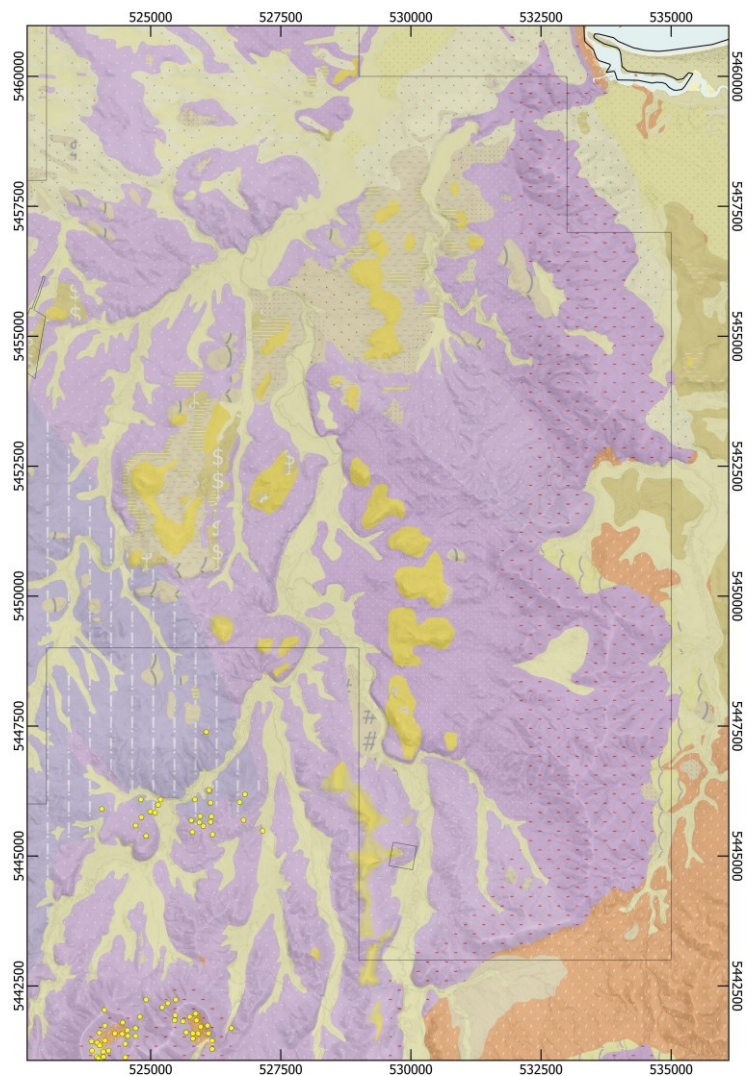


# Leura Soil Results – up to 2.36 g/t Au





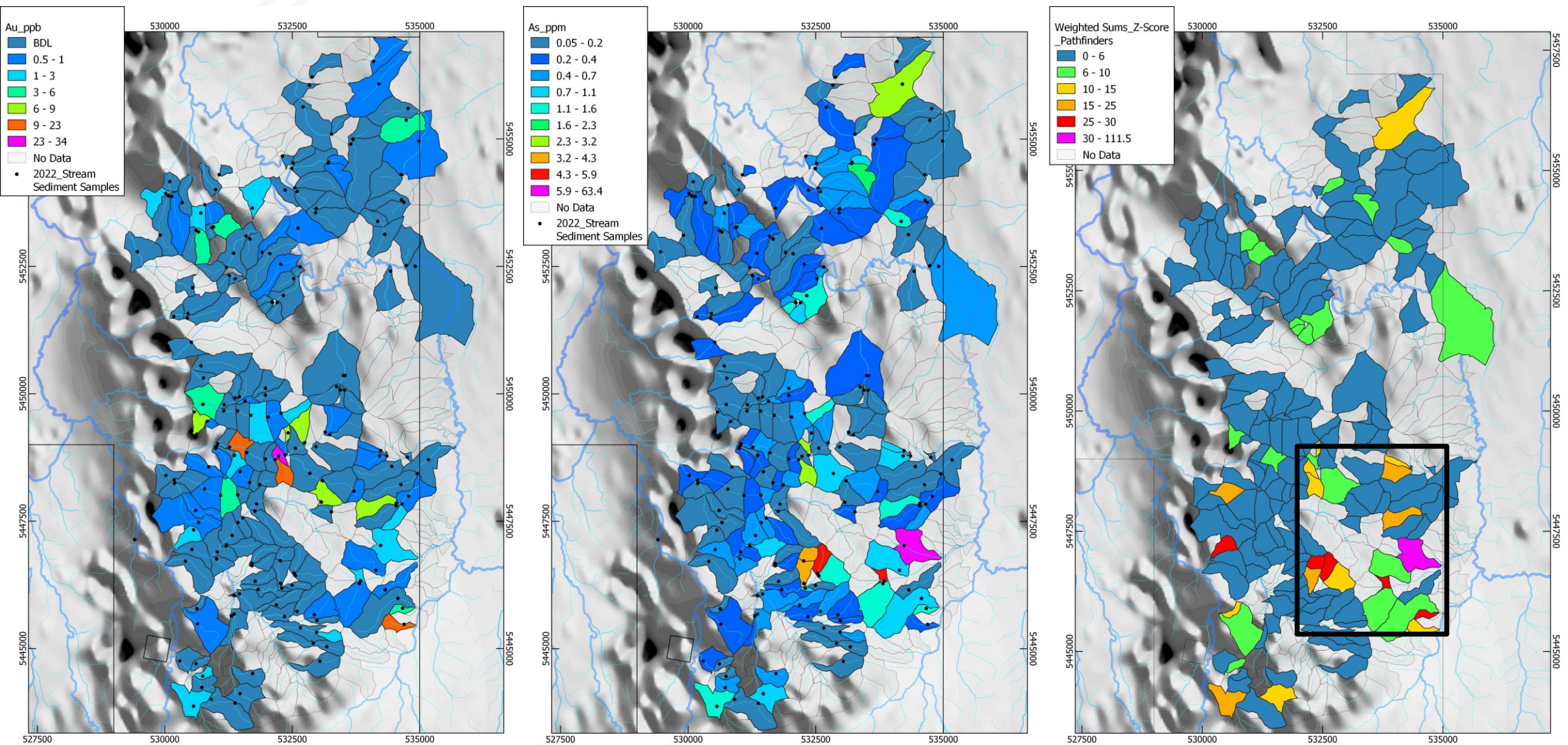
# Nabowla Rationale – IRG/Orogenic Au



- Permissive geology for Orogenic or IRGS – Edge of (?Lisle) granodiorite, strong NW mag lineaments, sporadic Au in streams and rocks



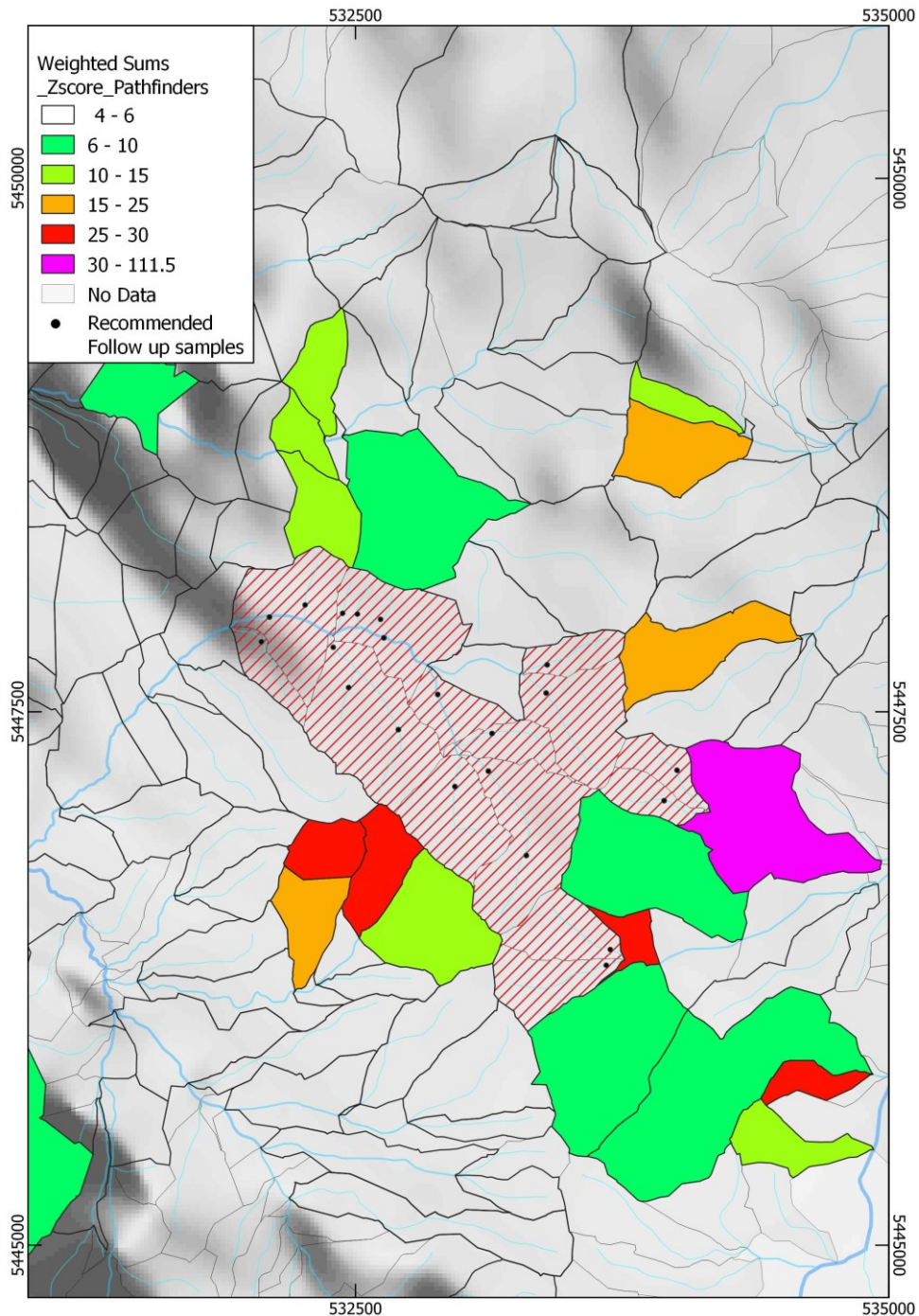
# Nabowla Results – The Power of Pathfinders?





# Follow-Up Sampling at Nabowla

- Using a multivariate approach to stream sediment results provides a spatially coherent and robust target area for follow up sampling at Nabowla
- Results Pending...



## SRZNAB008

Fe\_% 14.45

S\_% 0.16

As\_ppm 63.4

Sb\_ppm 0.12

Te\_ppm 0.16

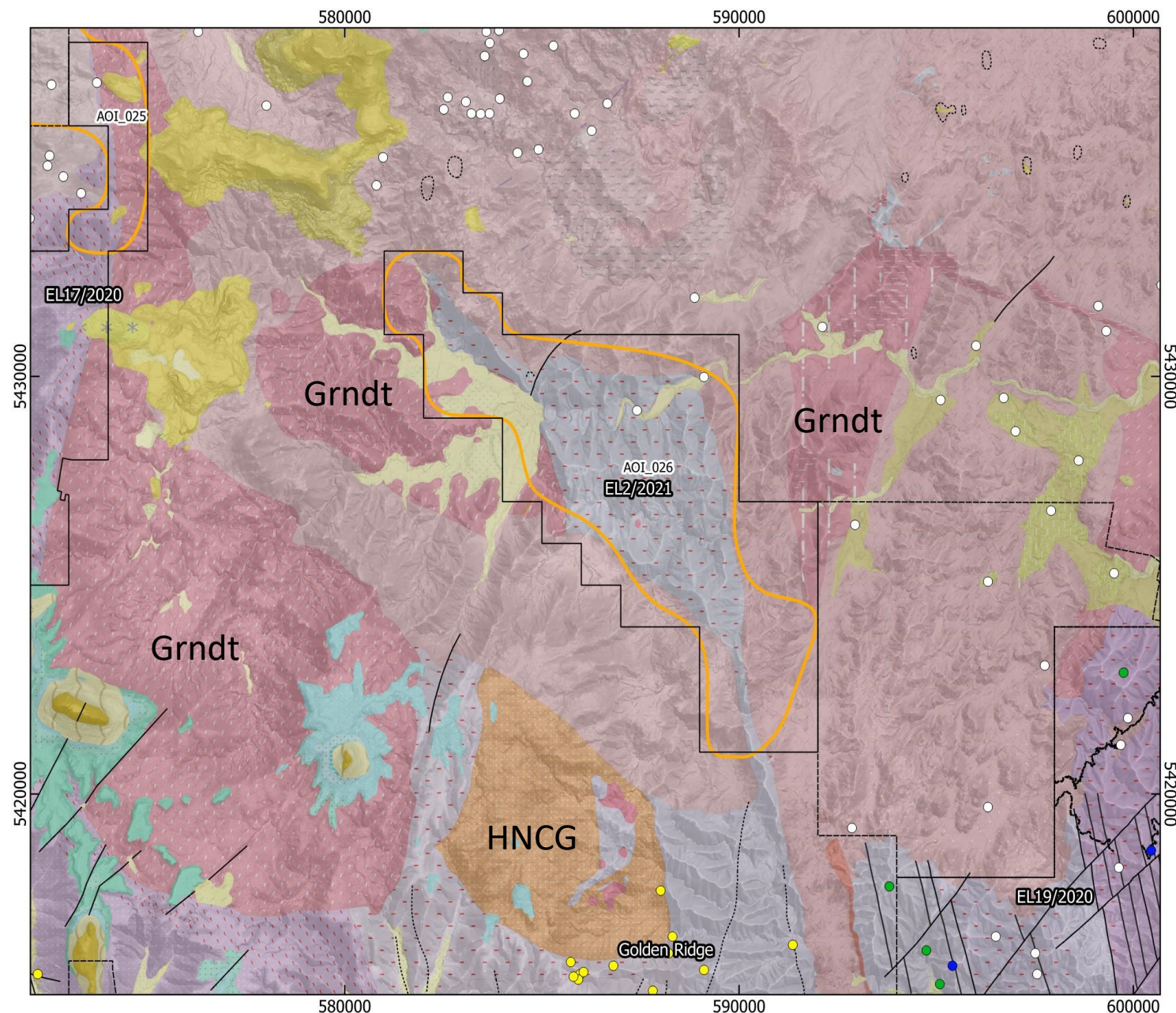
Bi\_ppm 0.18

# OTHER HIGH PRIORITY TARGETS



# Pyengana - IRG

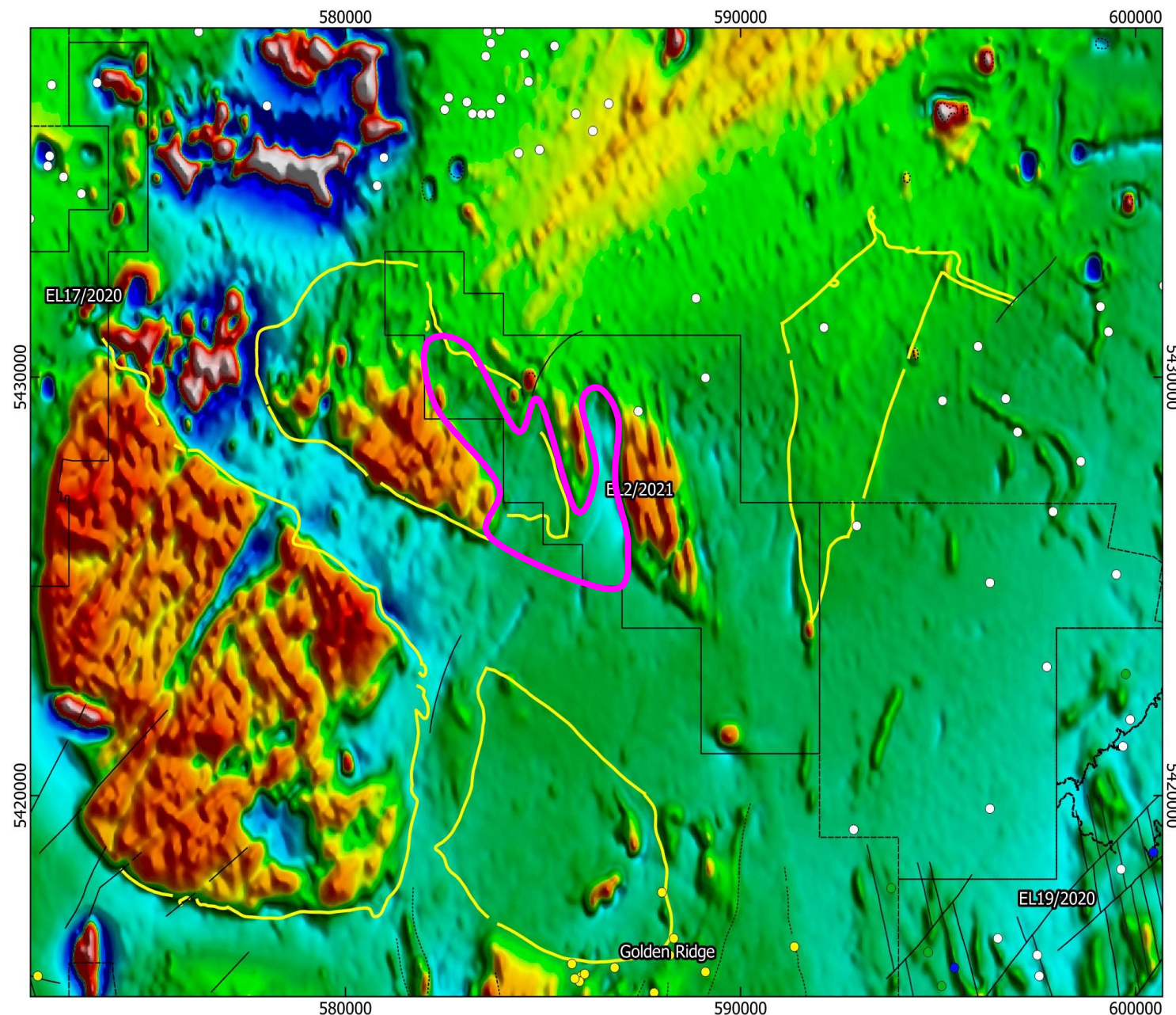
- **Wedge of hornfelsed Mathinna Gp surrounded by granodiorite intrusions and cross-cut by late Poimena granite**
- **Haleys New Country Granite (HNCG) considered causative stock for Golden Ridge district**





# Pyengana - Magnetics

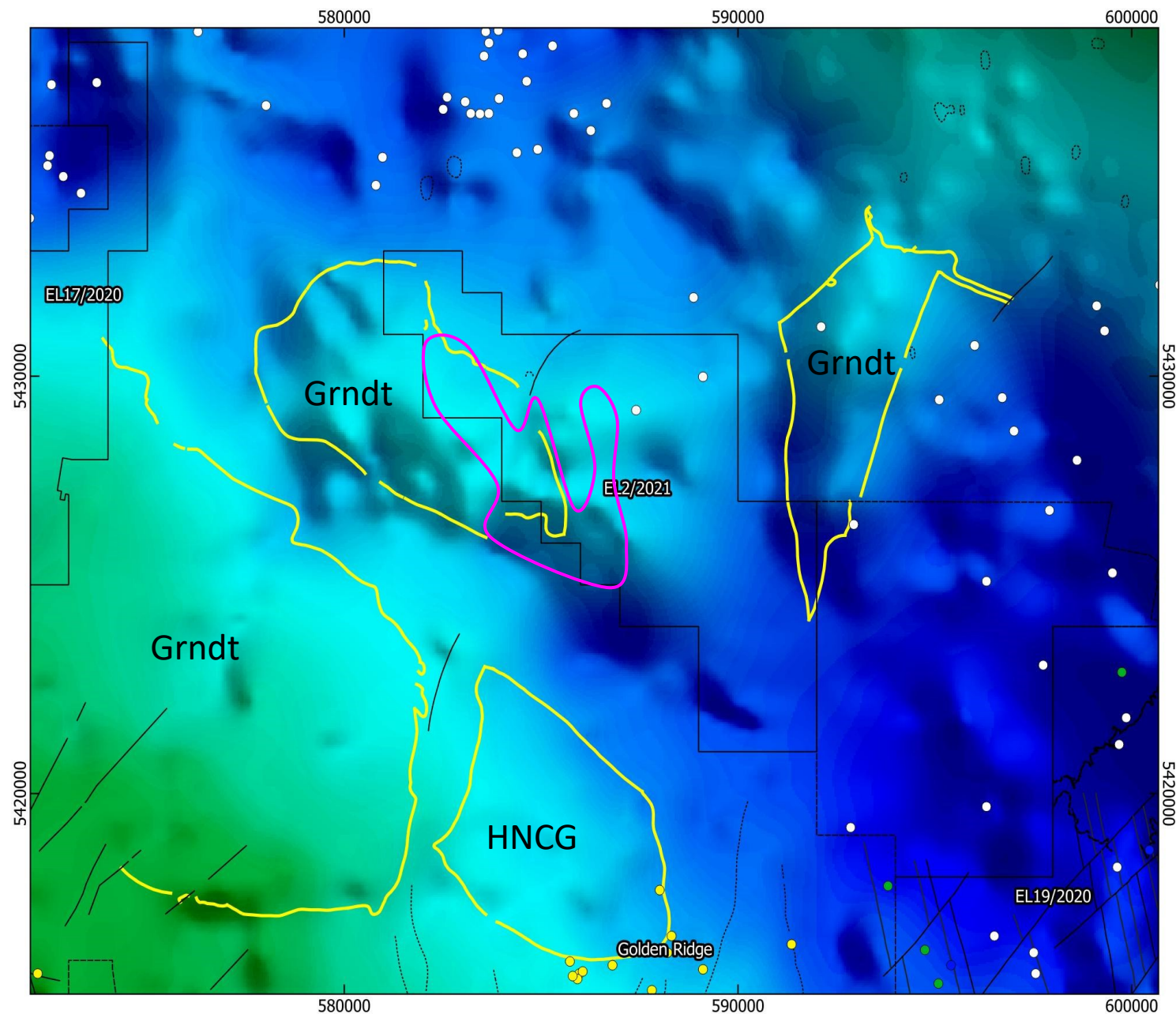
- **Granodiorites display quite different magnetic character**
  - Western stocks are strongly magnetic
  - Eastern stock has almost no magnetic response – more similar to HNCG in south
- **Hornfelsing of Mathinna Group at Pyengana, with central zone of **subdued magnetics****





# Pyengana - Gravity

- Mag Low coincides with gravity ridge extending out from mapped granodiorite under Mathinna Gp
- Geophysically very similar to Golden Ridge
  - Strongly altered granodiorite at depth?
  - Originally related to HNCG?
  - Stoped out by Poimena?



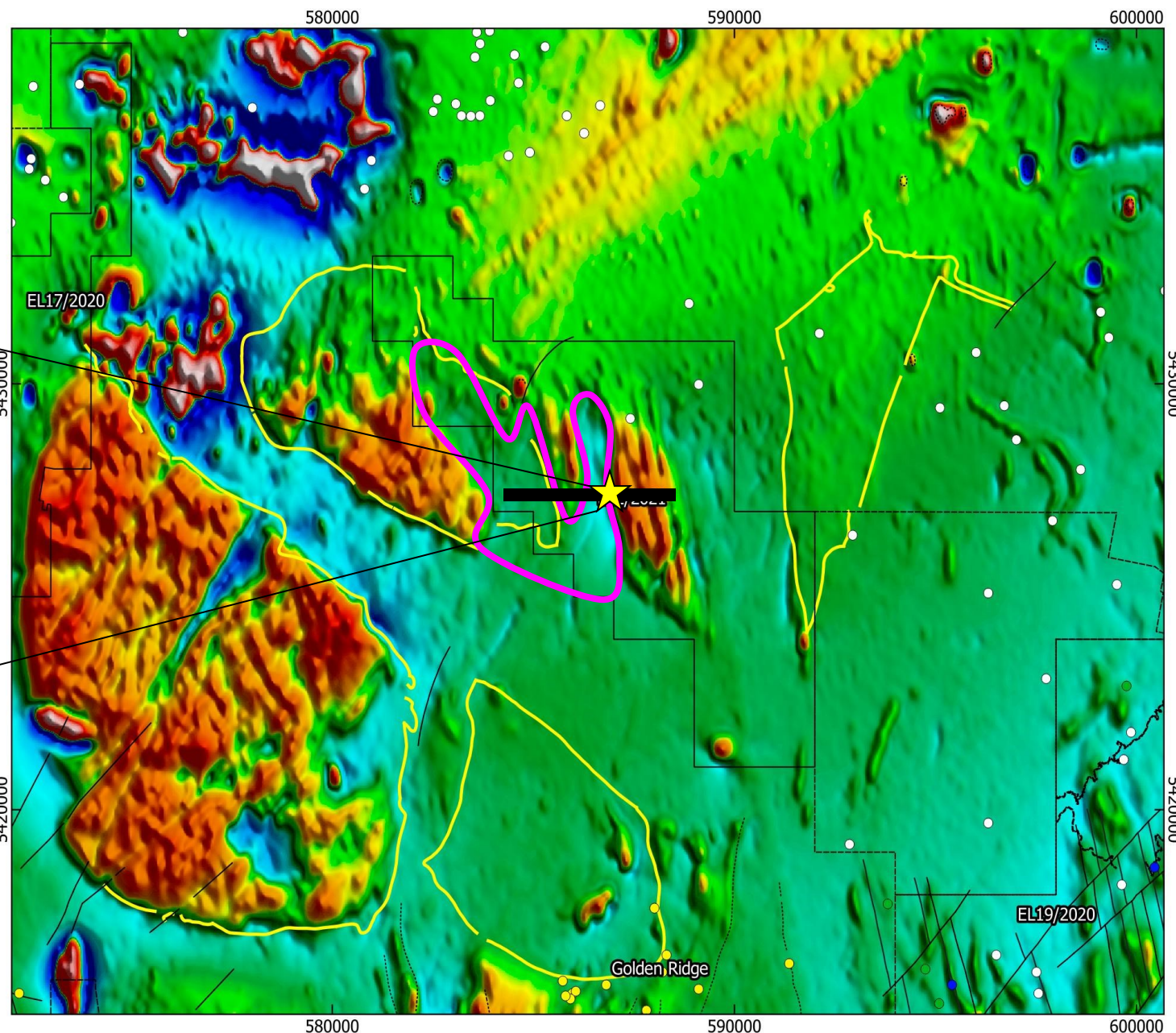


# Pyengana - Reconnaissance Sampling Traverse



**Gossanous  
Qz veins in  
hornfelsed  
Mathinna**

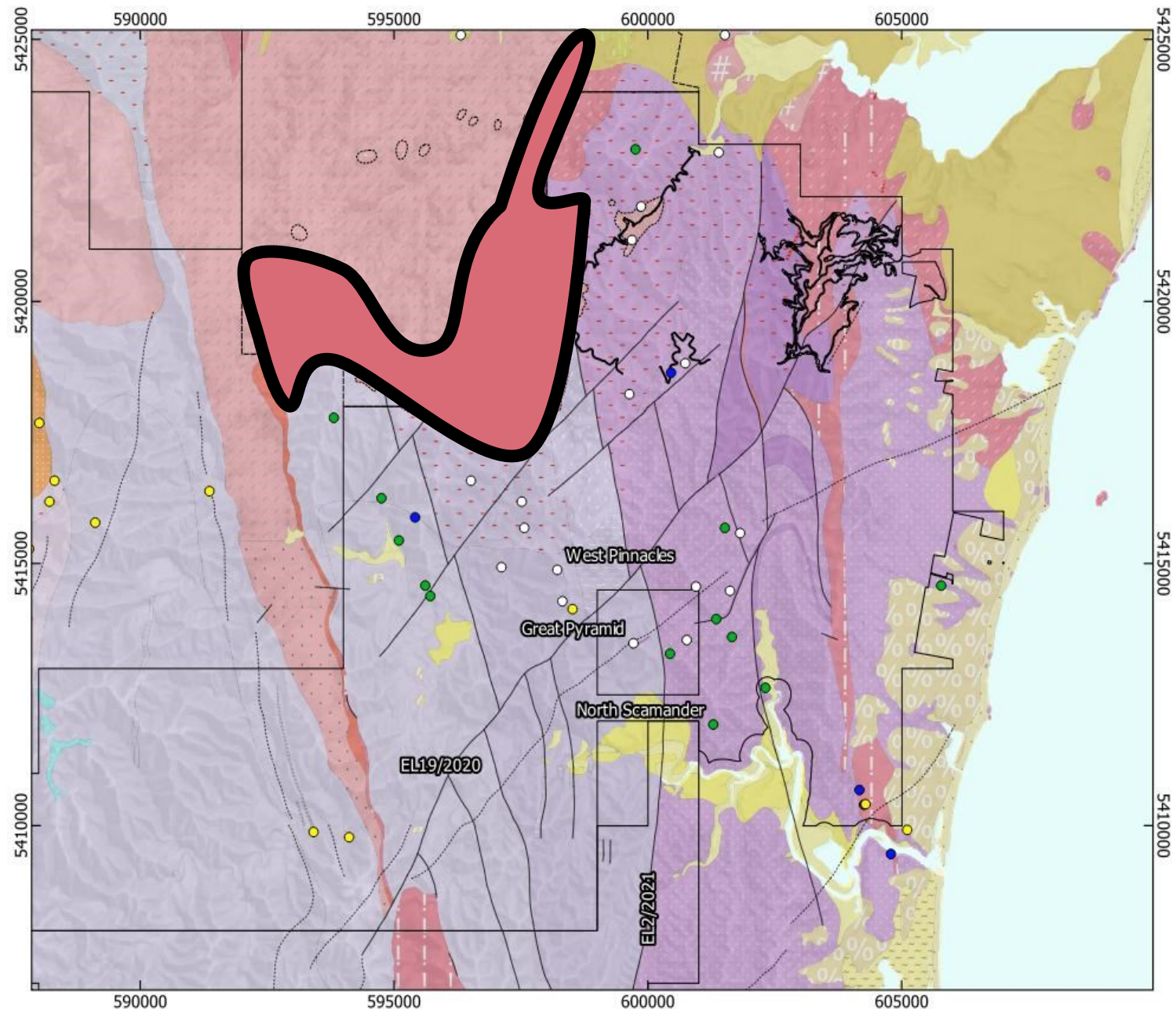
**Results Pending...**





# Scamander Geology

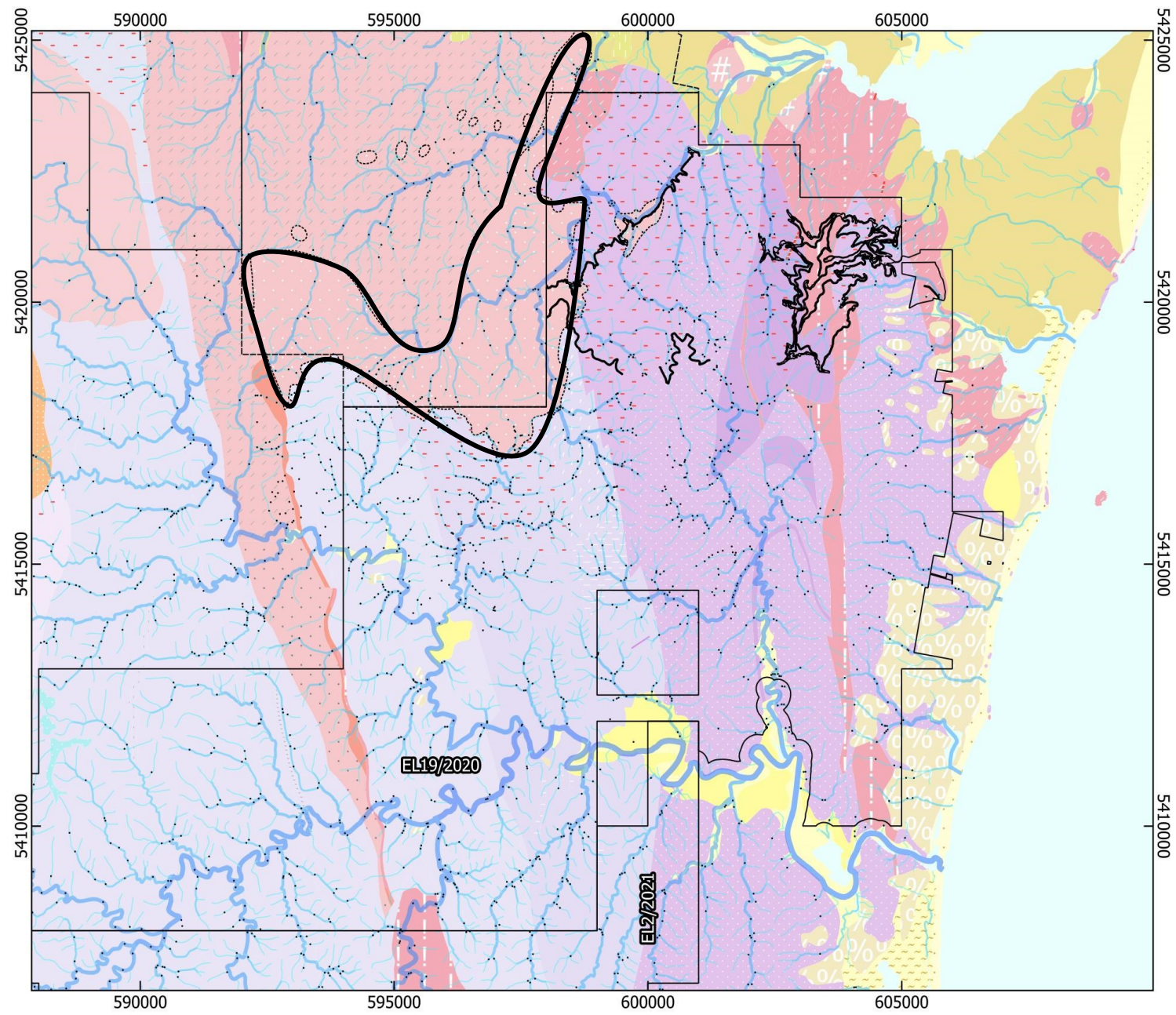
- **Well known mineral district**
  - Southern extension of Constable Creek Granite under Mathinna Group
- **TinOne Resources' (TORC) Great Pyramid the most advanced**
- **Series of W-Sn-Cu-Pb/Zn occurrences concentrically zoned around hypothesised centre of granite**





# AOI\_28 – Scamander

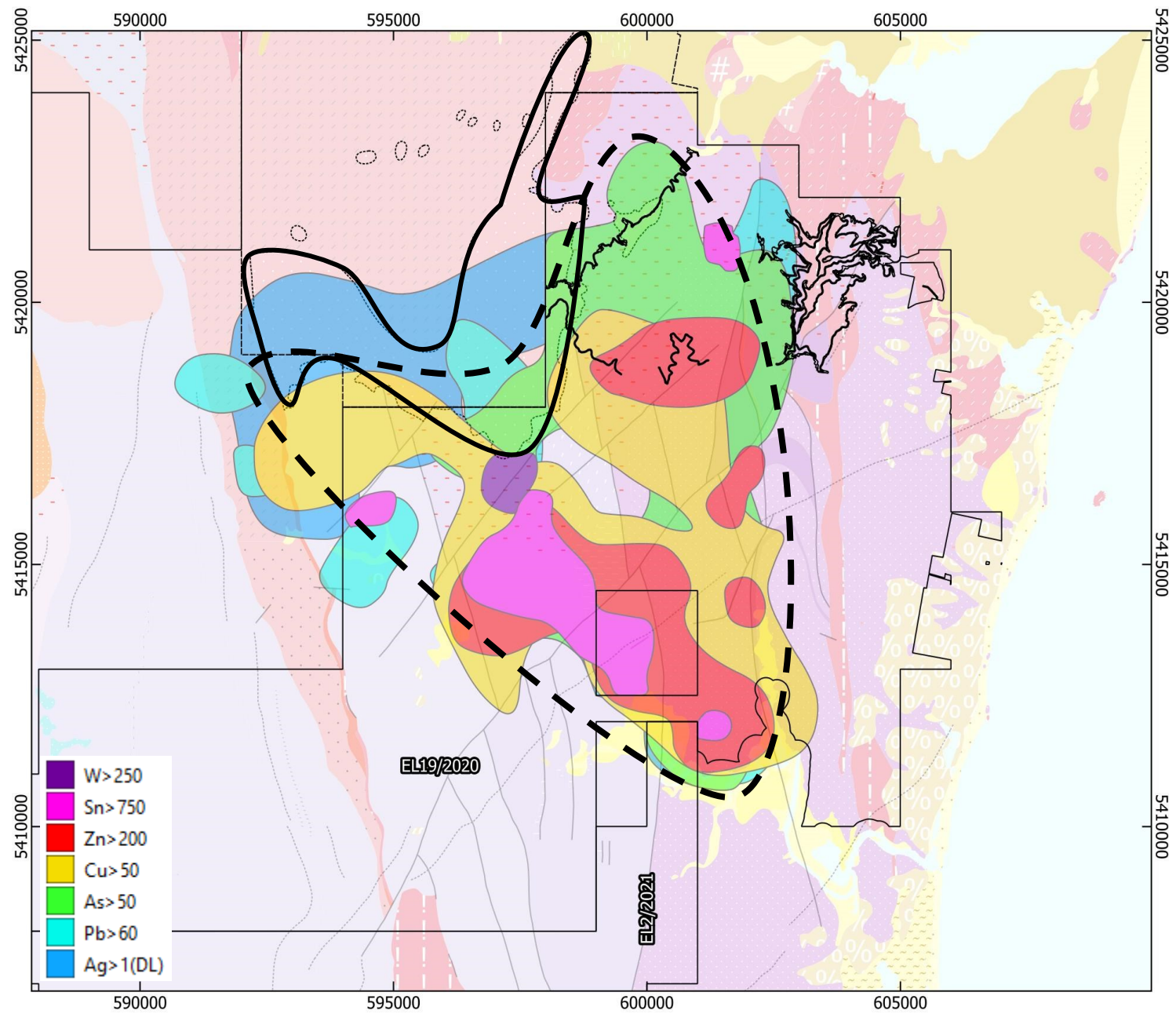
- Covered with dense(ish), consistently analysed stream sediment samples
- Good for gridding





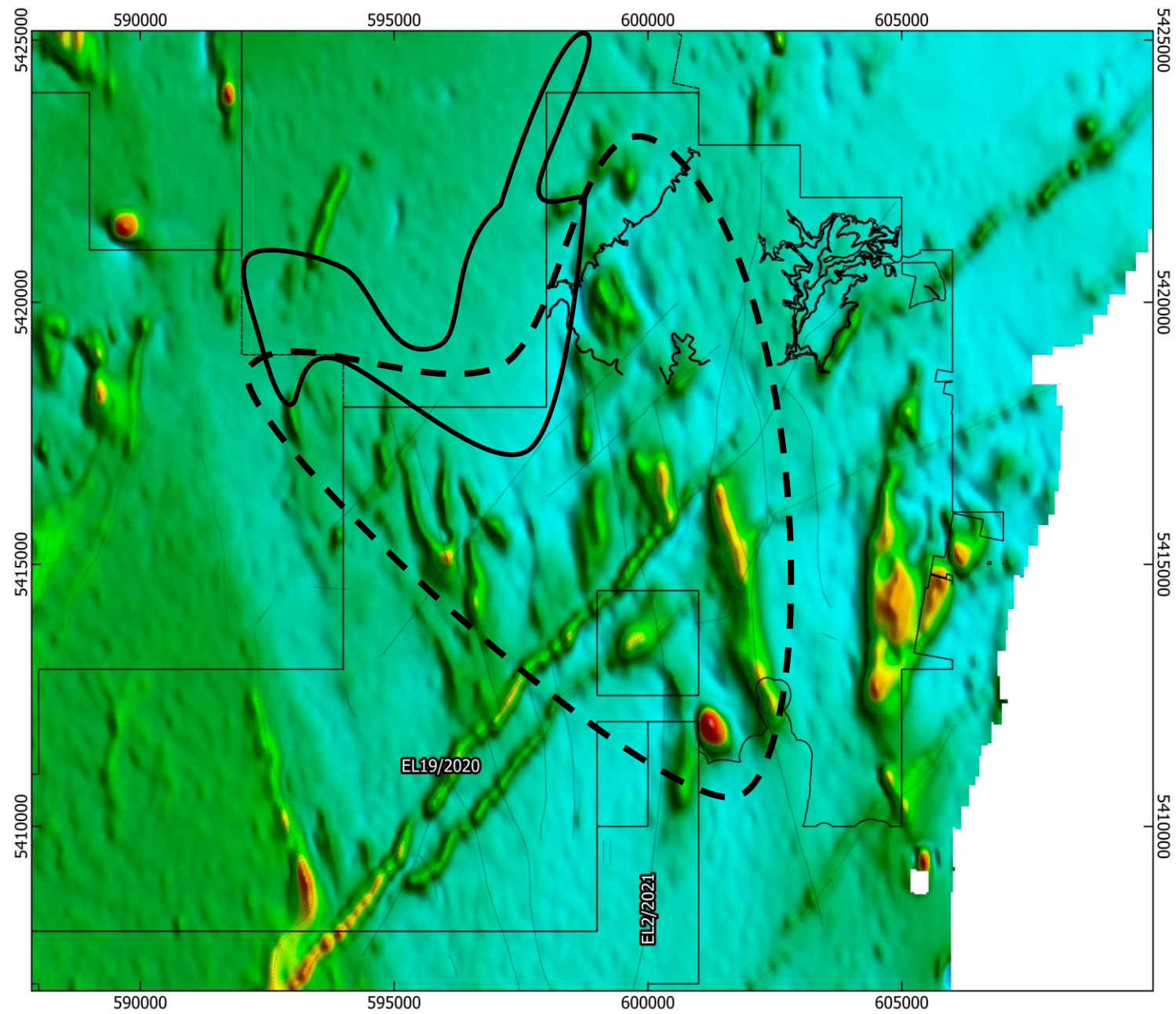
# AOI\_28 – Scamander – Zoned Stream Sediment Results

- Ag >1ppm
- Pb >60 ppm
- As >50 ppm
- Cu >50 ppm
- Zn >200 ppm
- Sn >750 ppm
- W >250 ppm



# AOI\_28 – Scamander

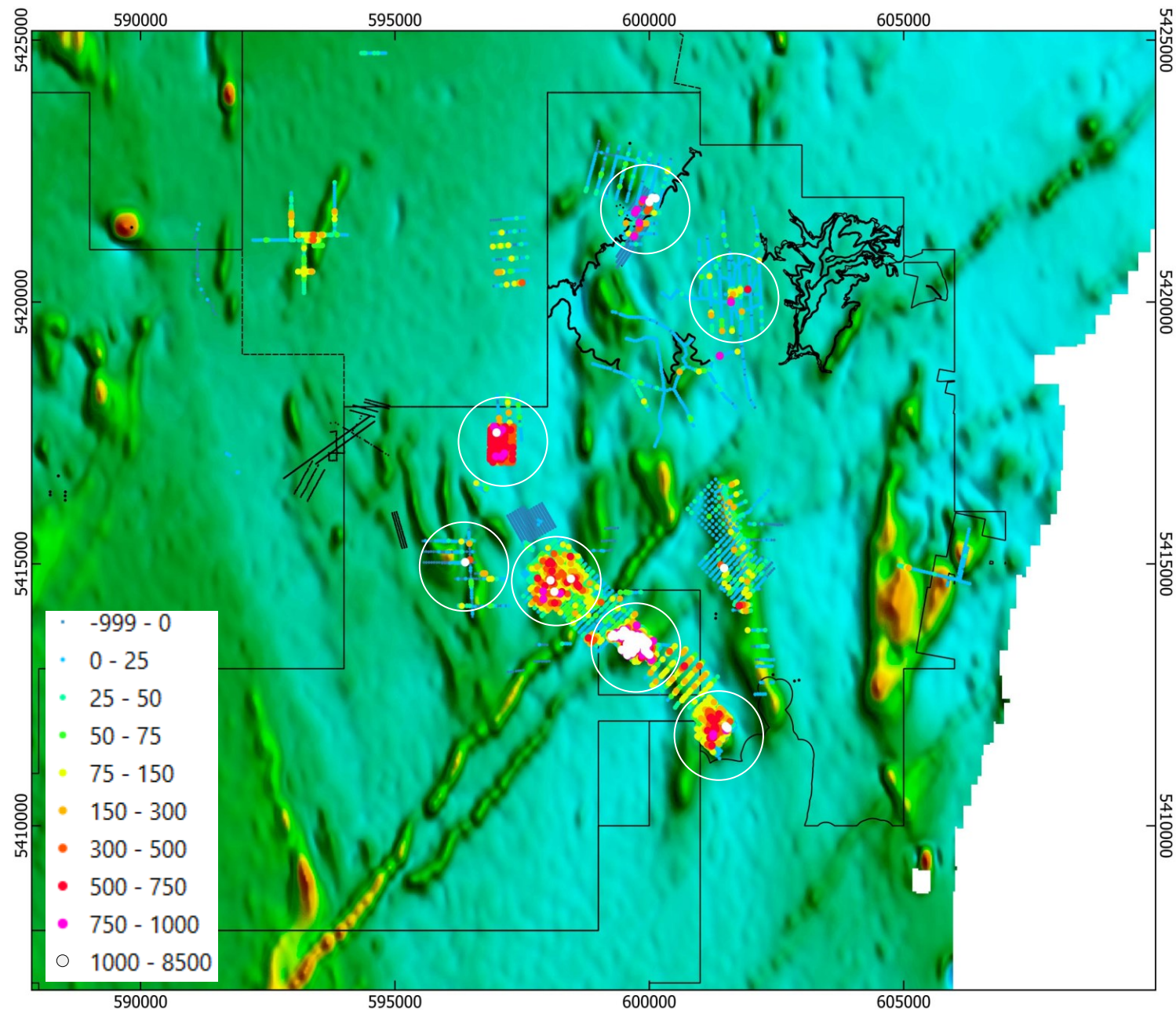
- Plausible geologic relationship, coincident with regional geochemistry
- Fluidal geometry, relationship with structural architecture suggest largely magmatic-hydrothermal origin
  - Probably reflecting pyrrhotite...
- Approx. 70 sqkm of prospective ground





## AOI\_28 – Scamander - Sn in Soils

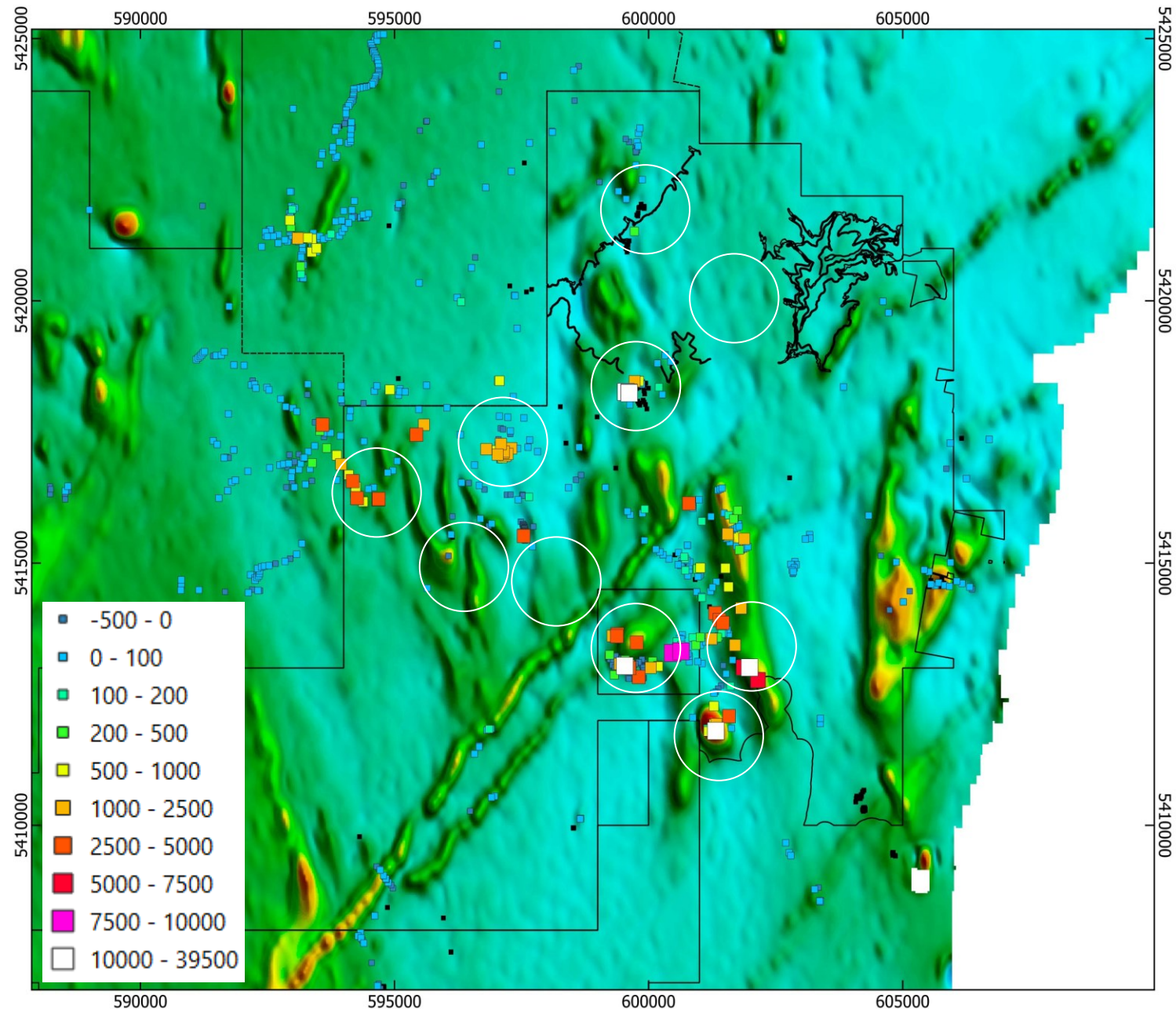
- **Extreme Sn values in a NW trending corridor – inc North Scamander, Great Pyramid, Pinnacles and Wolfram Creek**
- **3 -4 additional prospects with strong Sn values in soils and rock chips**





## AOI\_28 – Scamander - Sn In Rocks

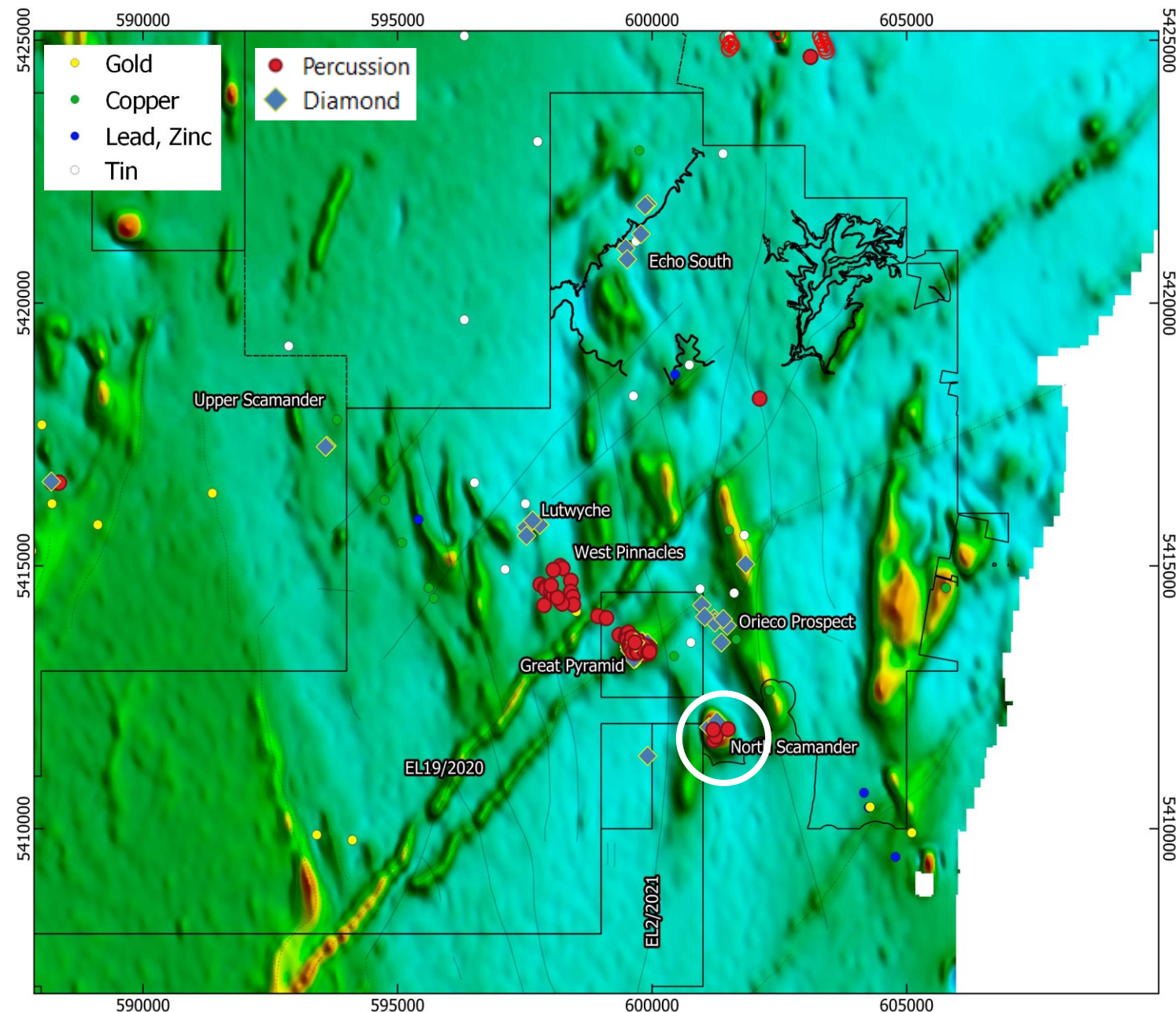
- **Extremely Sn values in a NW trending corridor – inc North Scamander, Great Pyramid, Pinnacles and Wolfram Creek**
- **3 -4 additional prospects with strong Sn values in soils and rock chips**





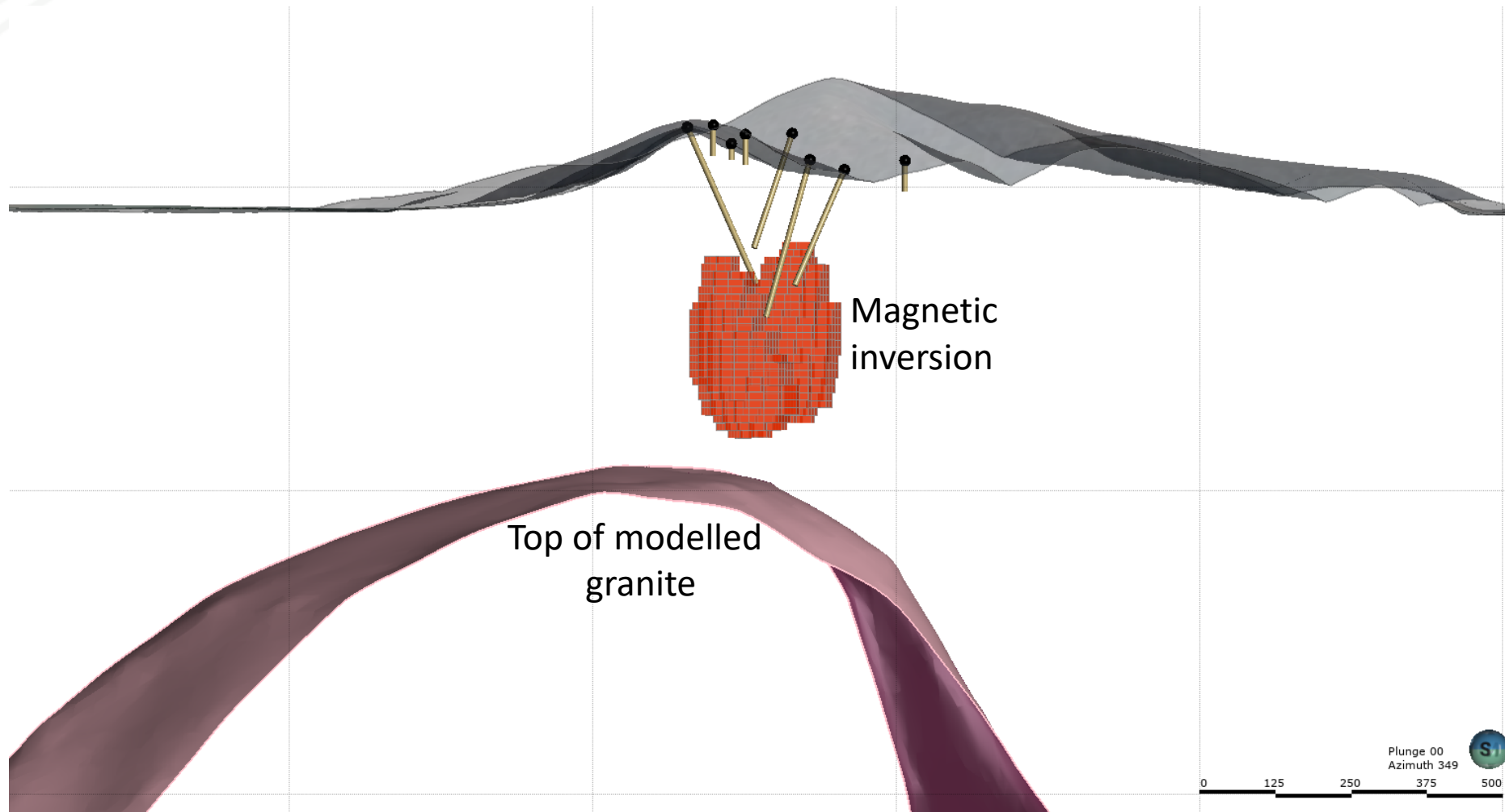
# AOI\_28 – Scamander - Mineral Occurrences and Drilling

- Limited drilling considering the surface and geophysical anomalism, and most holes <200m
- Great Pyramid Resource
  - 5.2 Mt @ 0.2% Sn (10,400t Sn)
- North Scamander
  - NSD2 – 138m @ 0.8% Zn (inc. 1m 0.45% Sn, 6.2% Pb, 7.8% Zn, 62 g/t Ag (from 31m))
- Huge potential here!



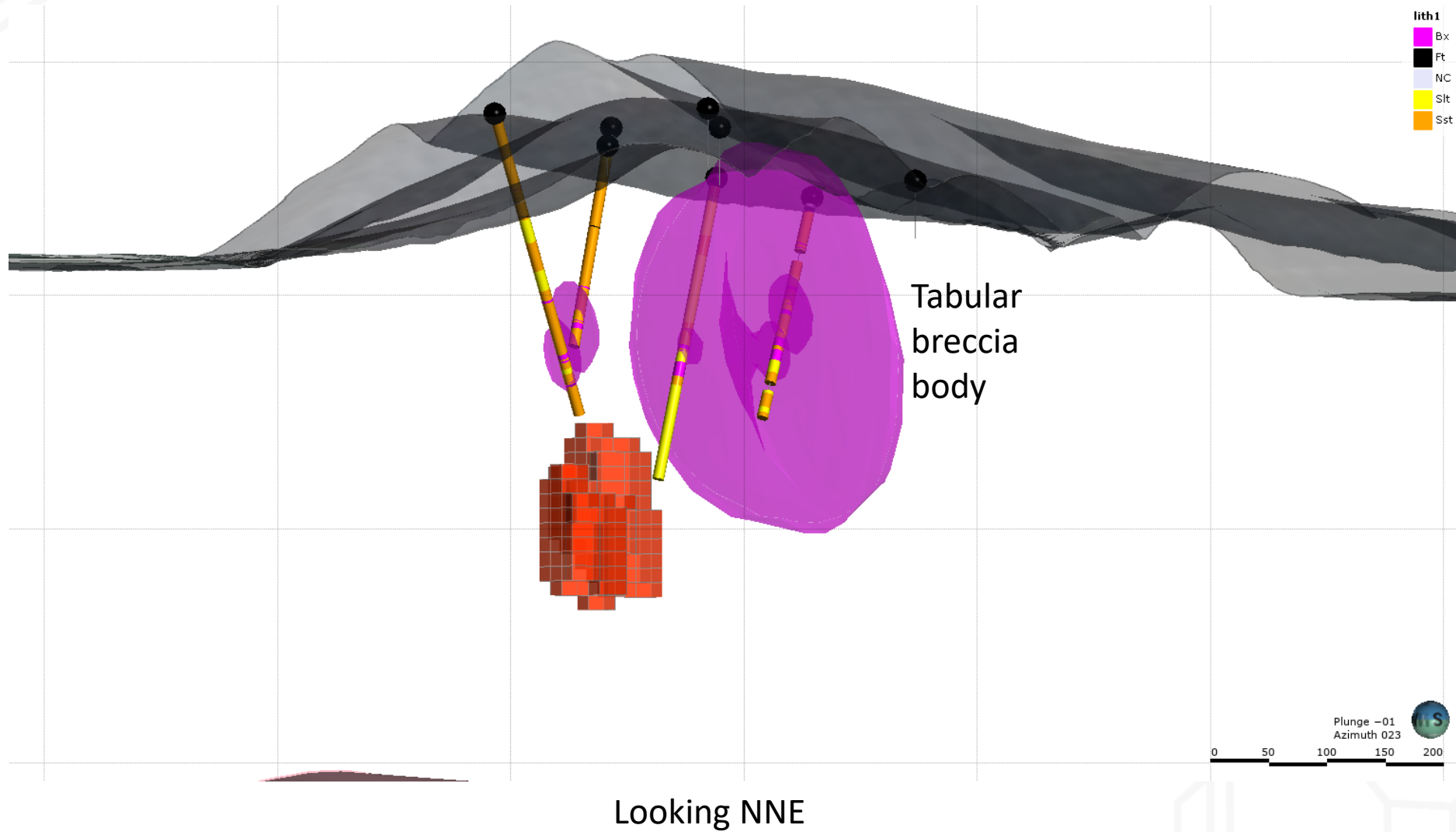


# North Scamander





# North Scamander – Hydrothermal Breccia





140.5



NSD2

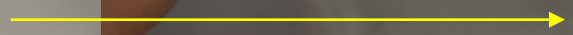
139



139.3

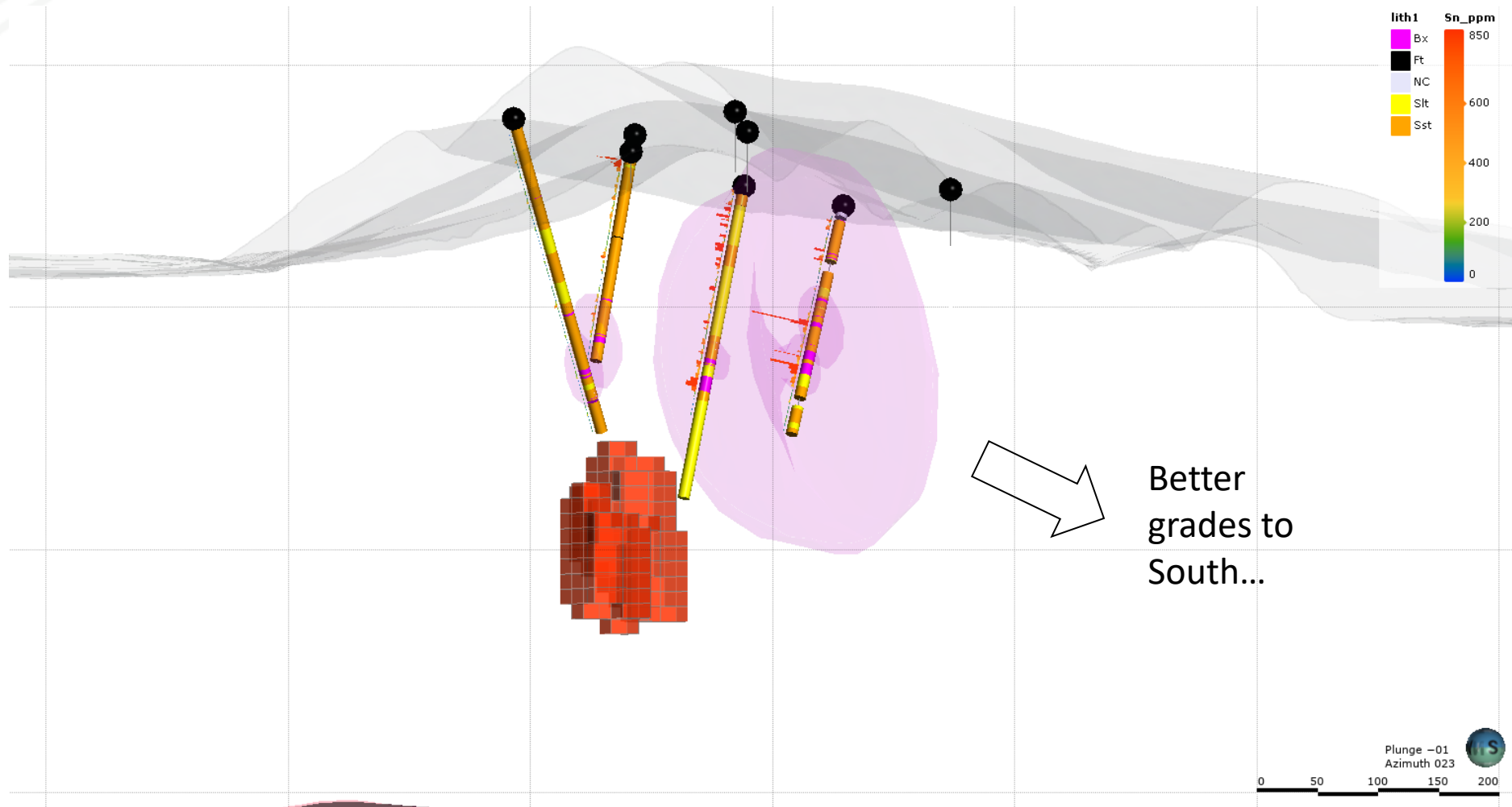


Increasing Breccia Intensity





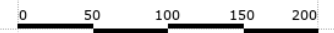
# North Scamander - Sn



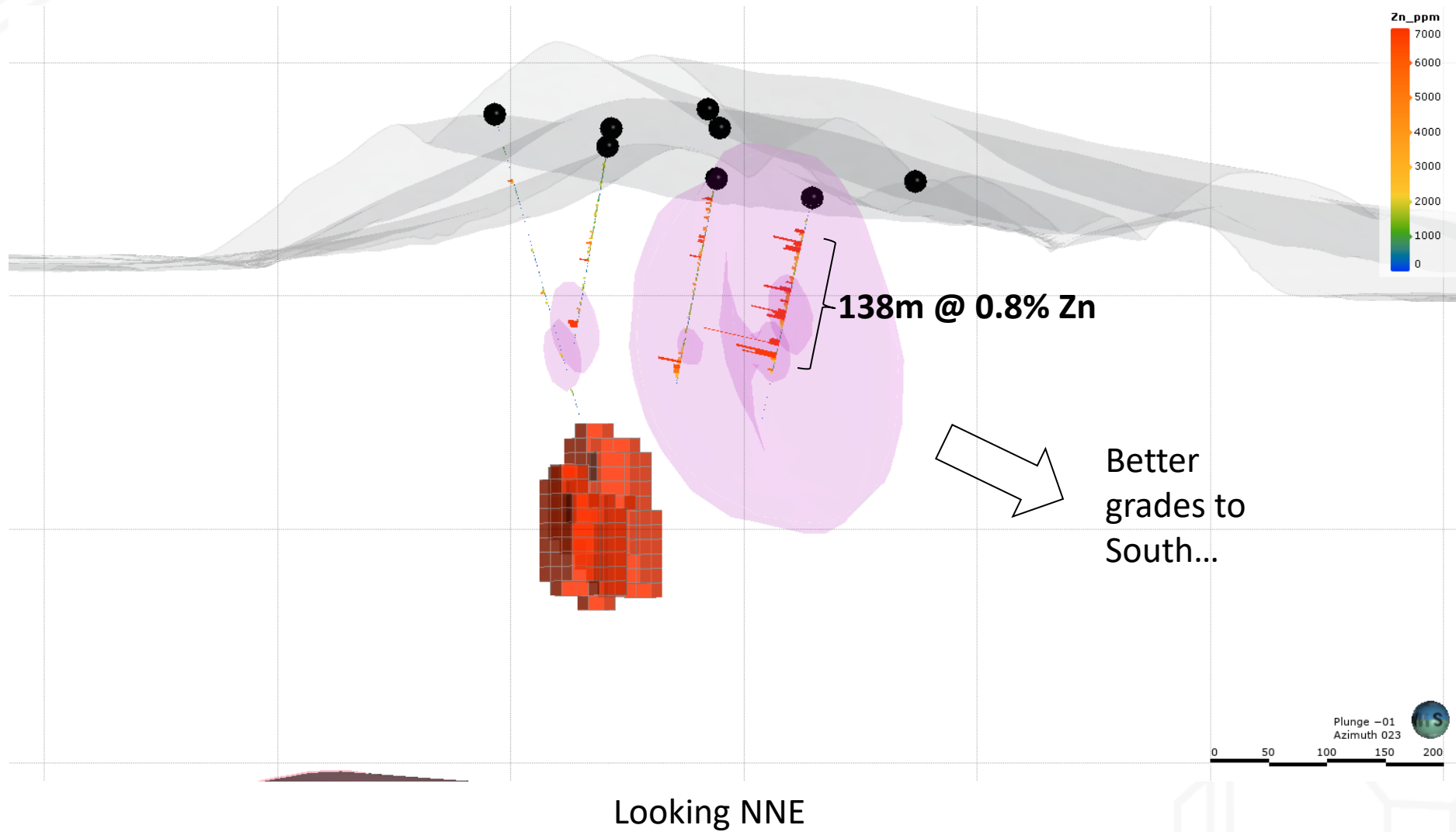
Looking NNE

Better grades to South...

Plunge -01  
Azimuth 023

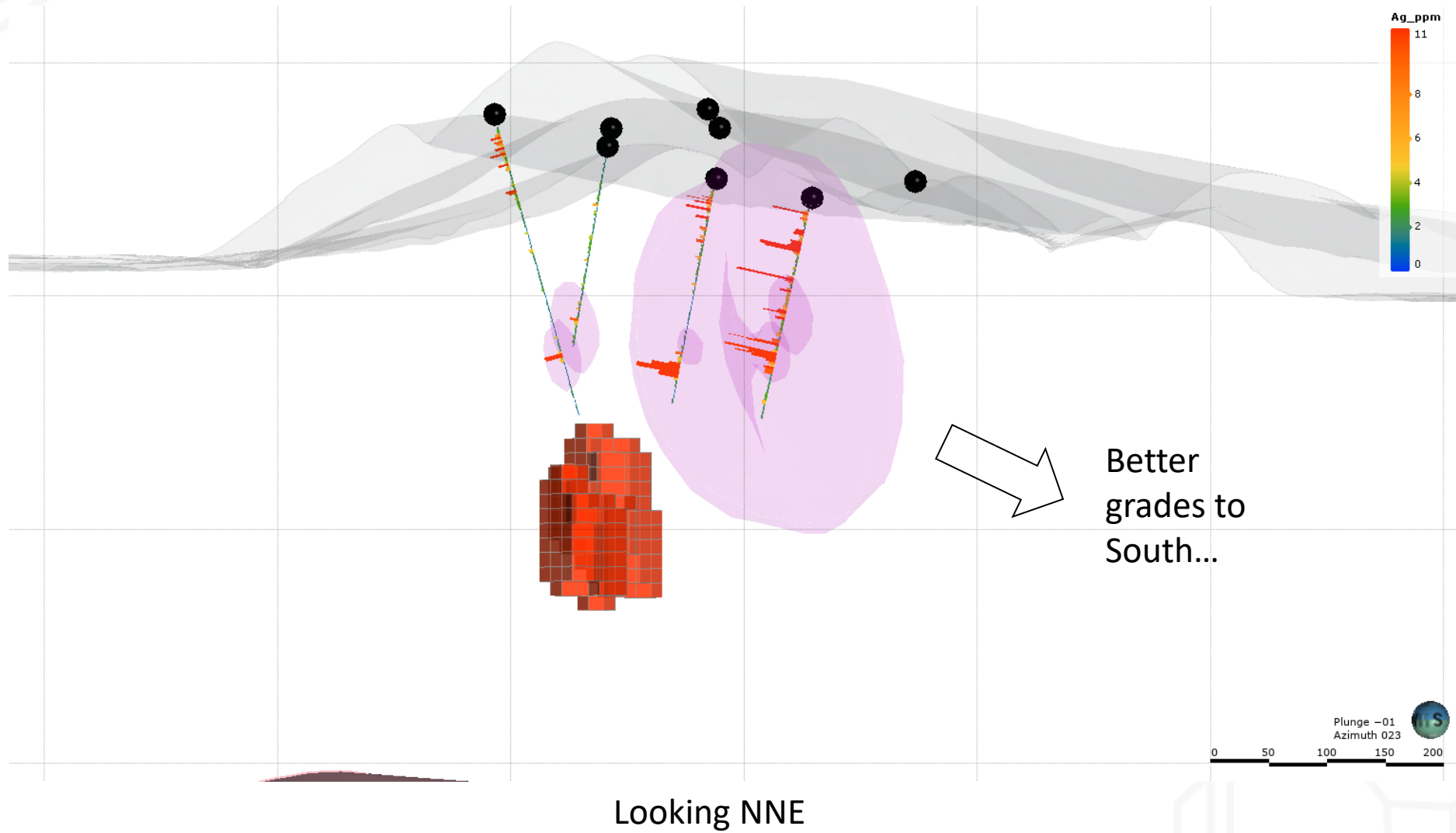


# North Scamander - Zn

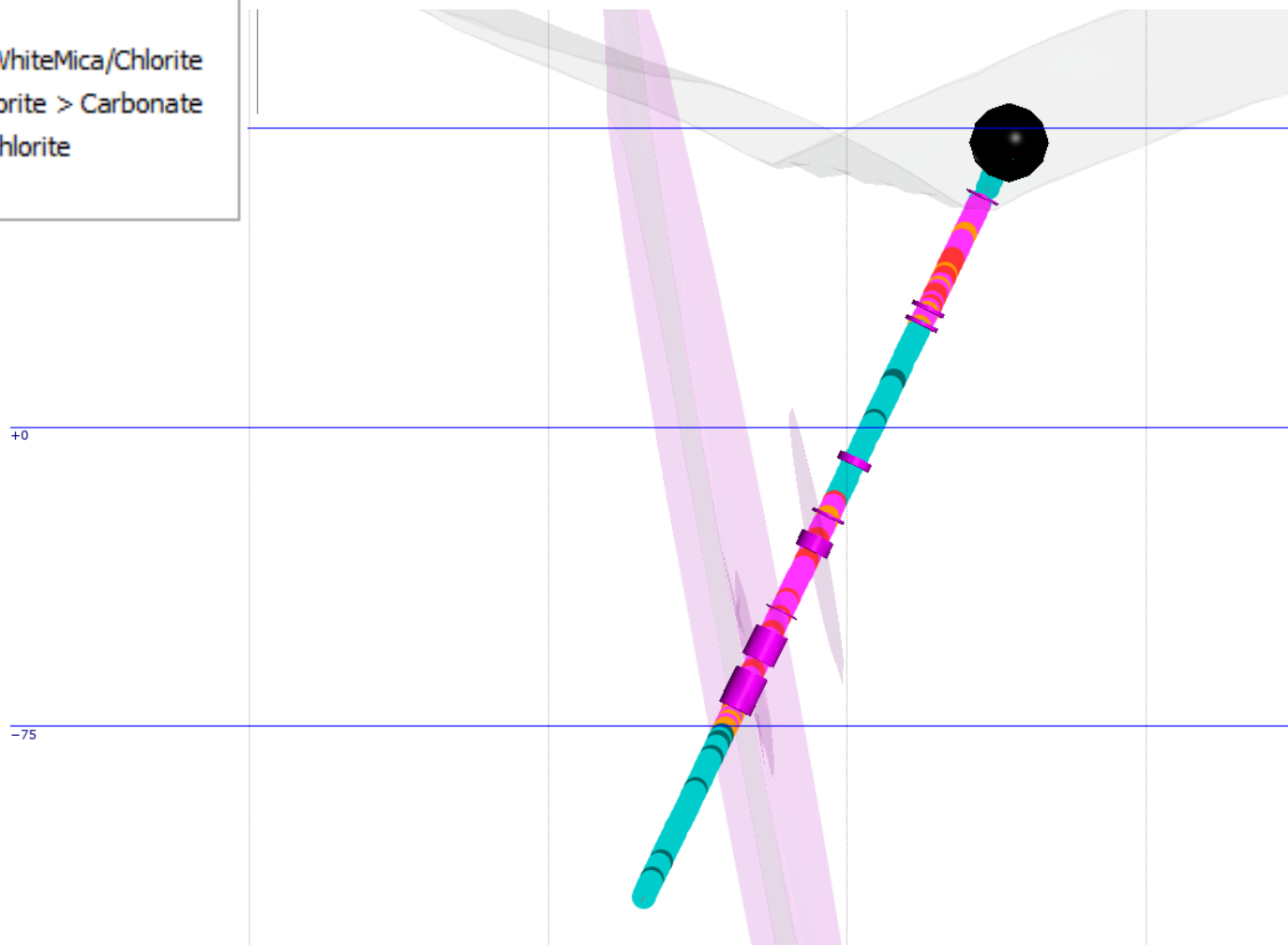
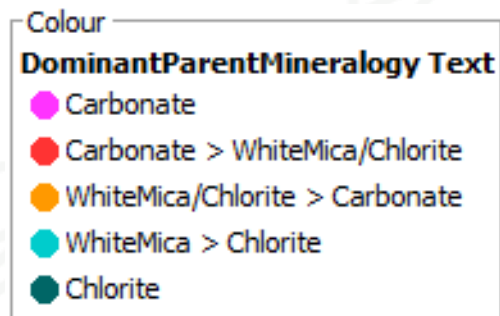




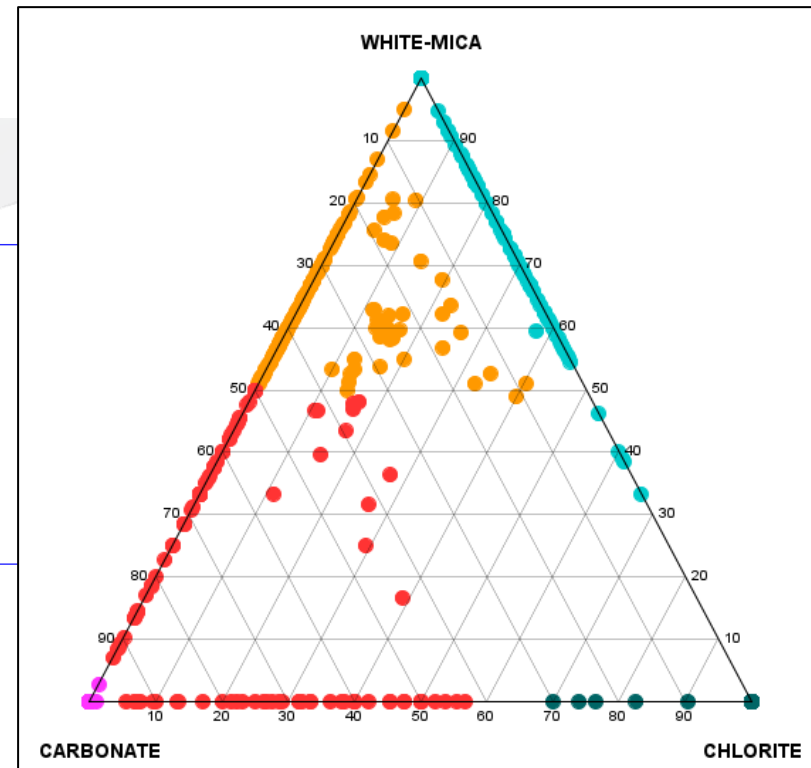
# North Scamander - Ag



# NSD2 Alteration Domains from Hylogger Data (Thanks Jake & MRT!)



Looking NNW



Plunge 00  
Azimuth 326

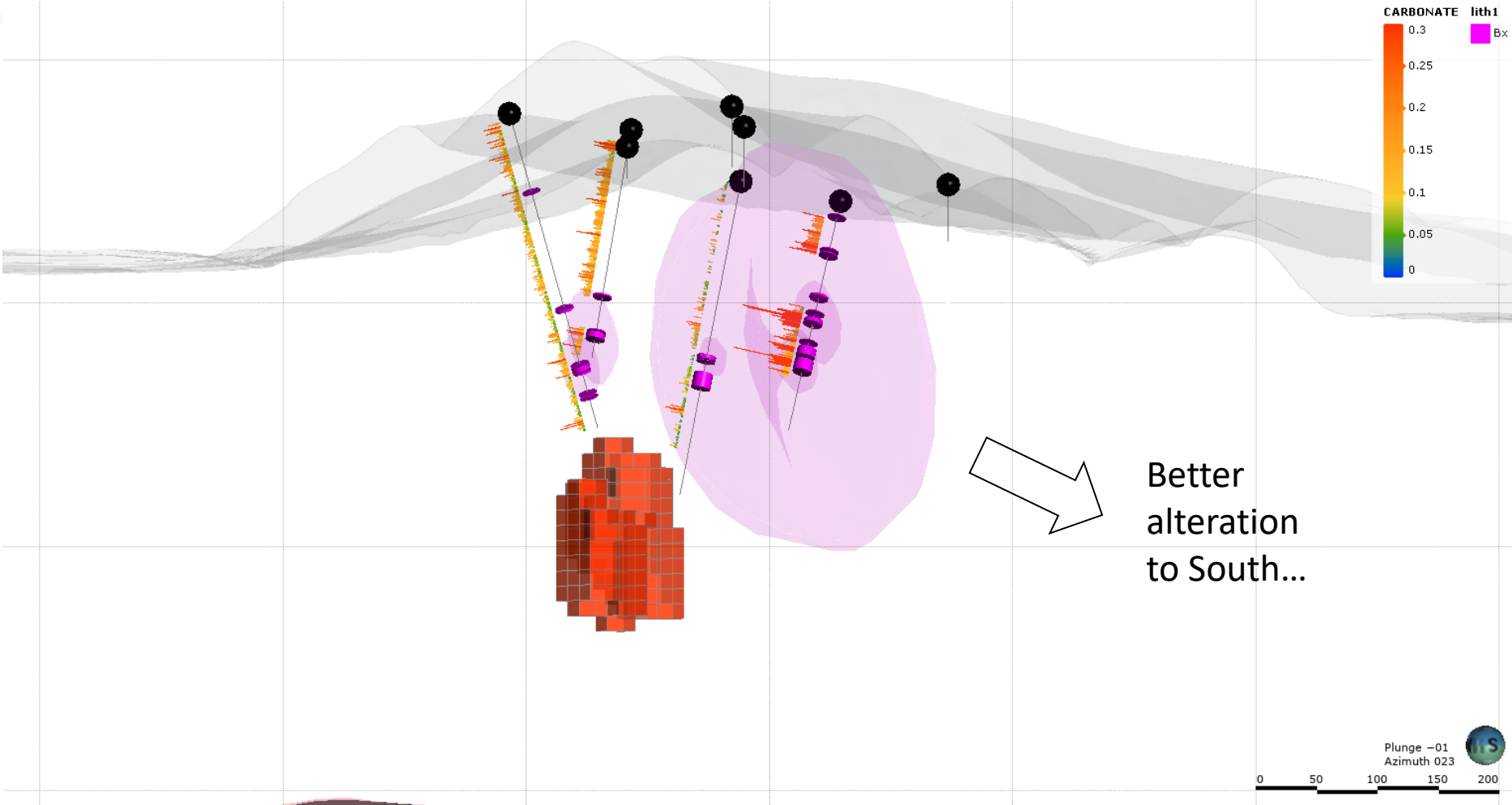


0 25 50 75



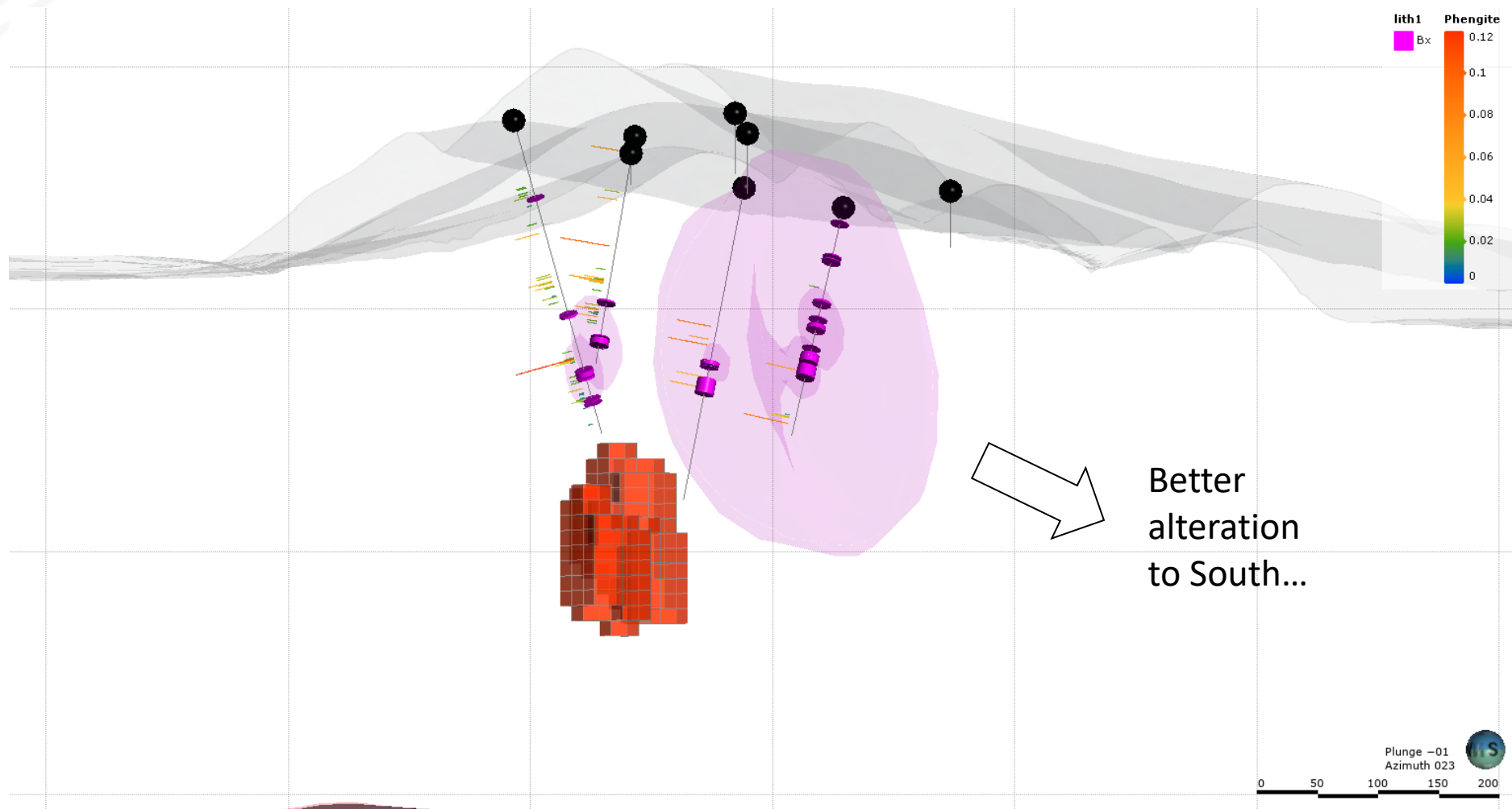


# North Scamander - Carbonate



Looking NNE

# North Scamander – White Mica - Phengite



\*Phengite (Mg-rich) white mica usually represents more neutral-alkaline fluids and so tends to increase **away** from more acidic associated with Sn mineralisation



# Summary

- **Multiple styles of mineralisation in NE Tas**
  - And sub-styles!
- **In known districts, there are already drill-ready targets**
- **In SRZ tenure off the known districts**
  - Truly greenfield opportunities
  - Allows a 'back to basics' targeting approach
  - Some promising results so far
- **SRZ have developed a pipeline of high quality targets in 12 months – no fancy footwork required**