



**Founders  
Metals**

# Antino Gold Project

## Structural Settings & Gold Mineralization

Vincent Combes, PhD & the Founders Metals Exploration Team

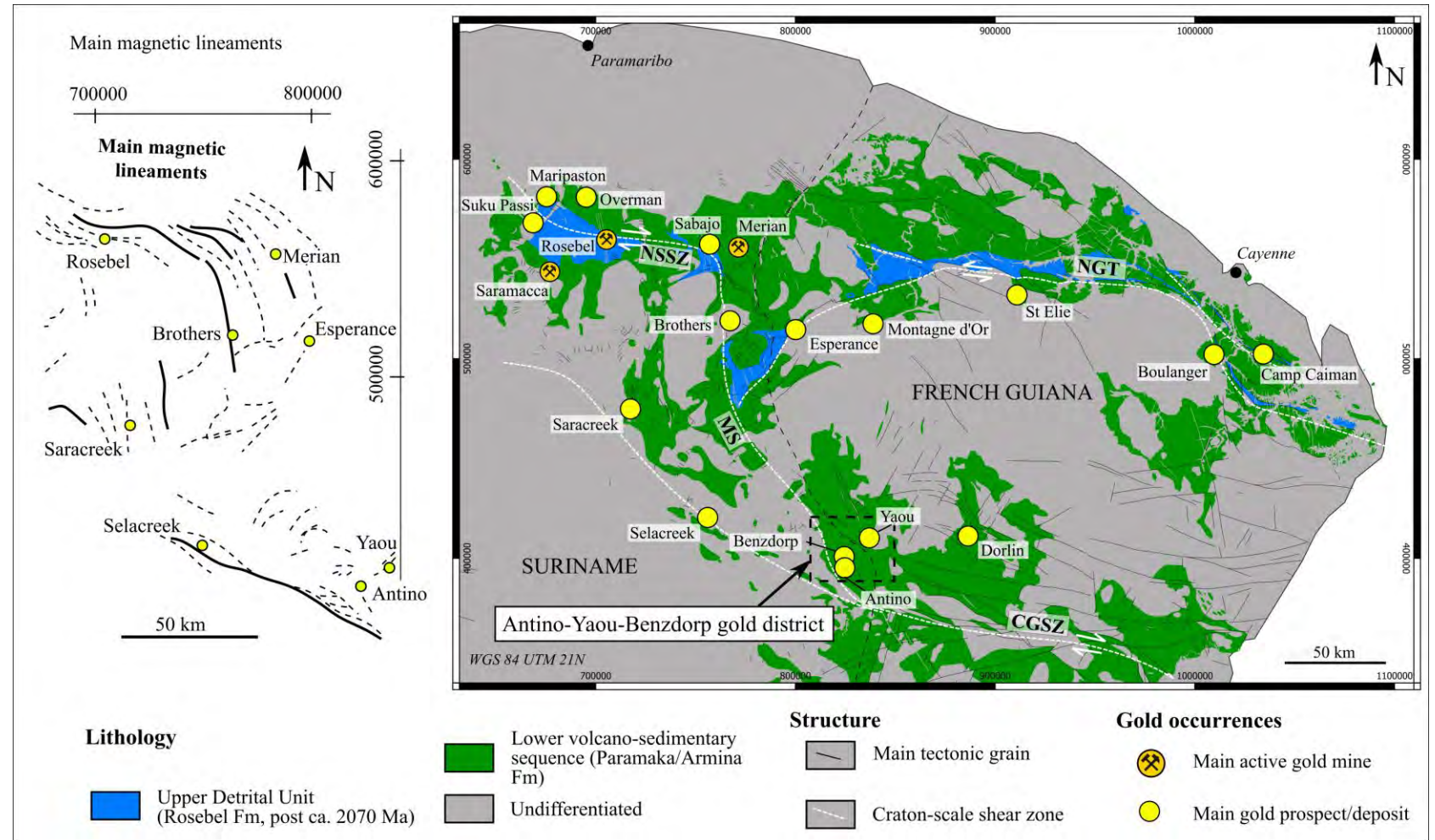
TSX-V FDR

FDRMETALS.COM



# The Antino Gold Project Within The Guiana Shield

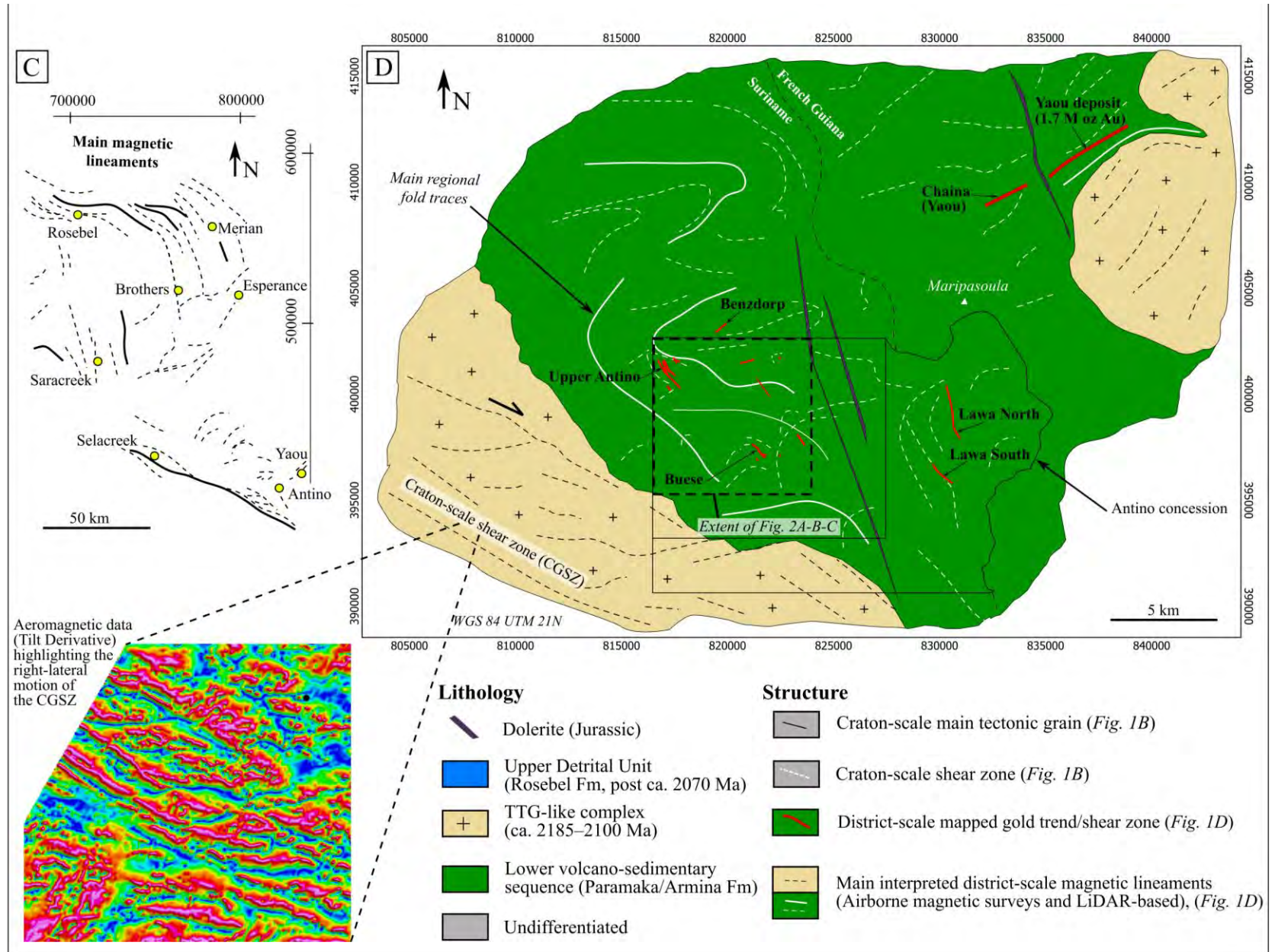
- NE part of Guiana Shield
- At intersection of two craton-scale shear structures
- 10 km from the Yaou gold deposit (> 1.5 M ounces) in French Guiana





# Regional Framework

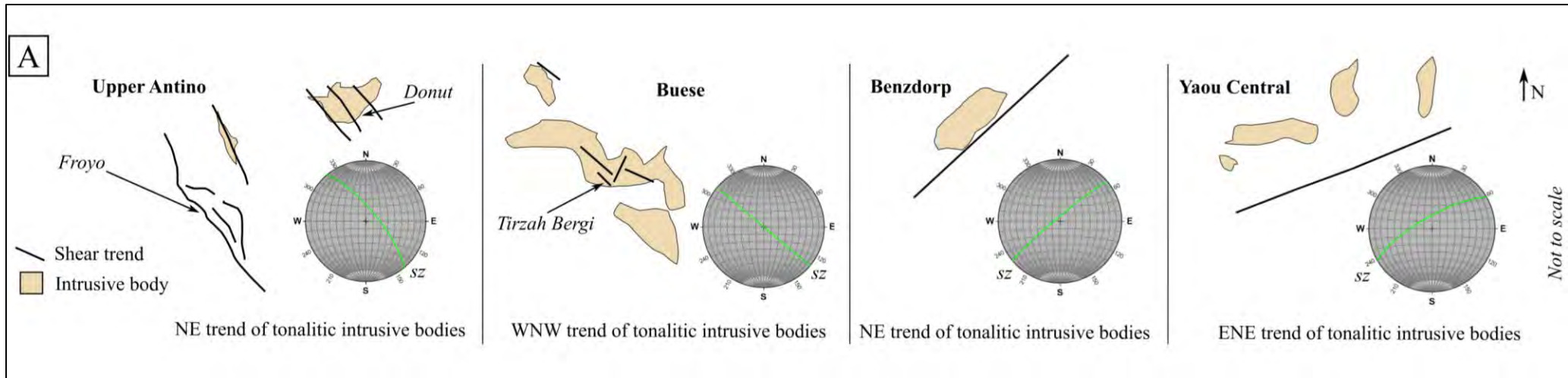
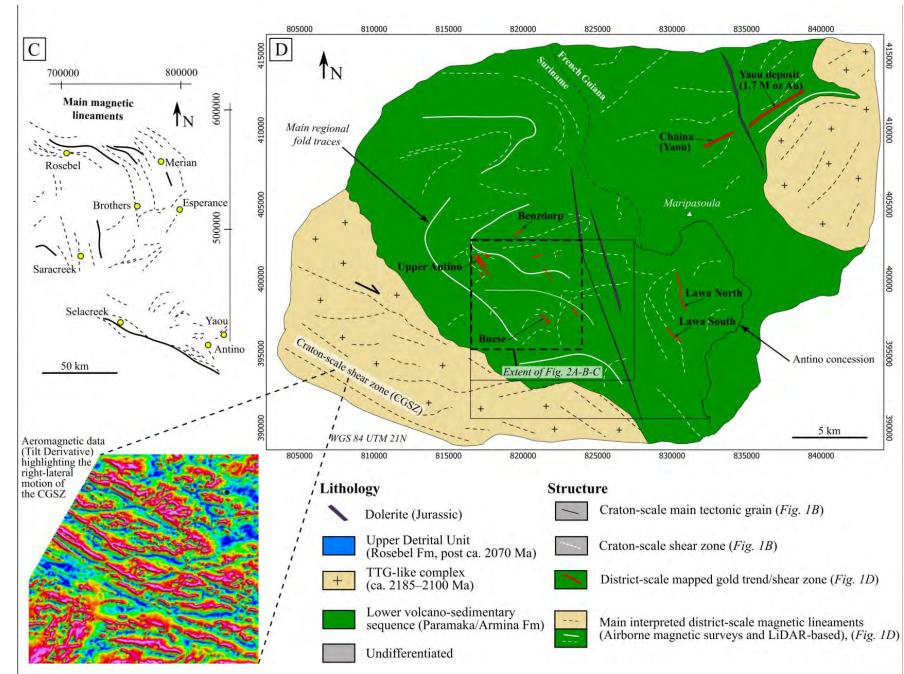
- Prolific gold district
- Yaou-Benzdorp-Antino
- Large fold traces in volcano-sedimentary sequence
- First, second/third order structures





# Regional Framework

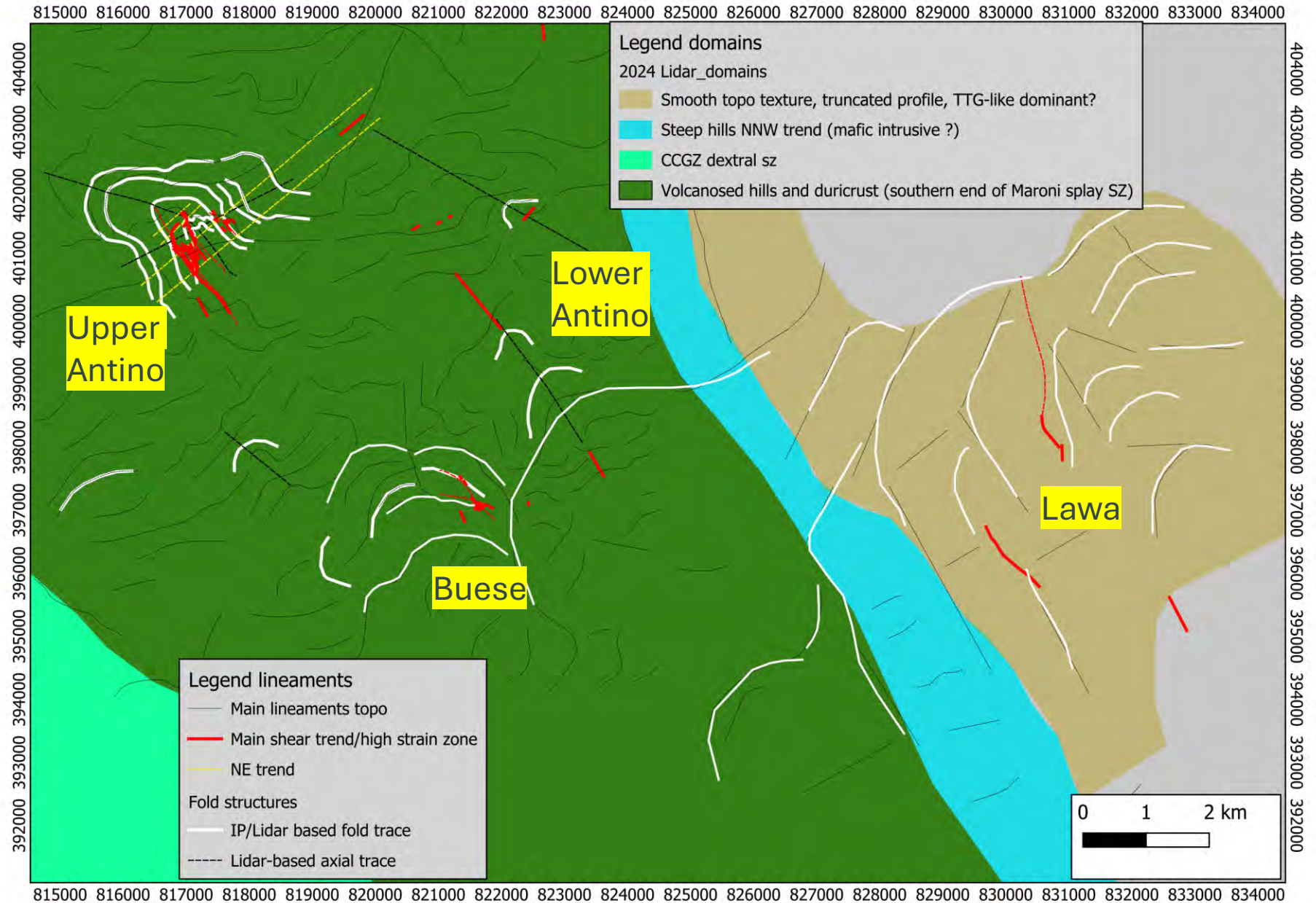
- At least 9 identified areas with tonalitic intrusion-hosted mineralization in the district
- (intrusion hosted OG = large tonnage)





# Antino Gold Camp

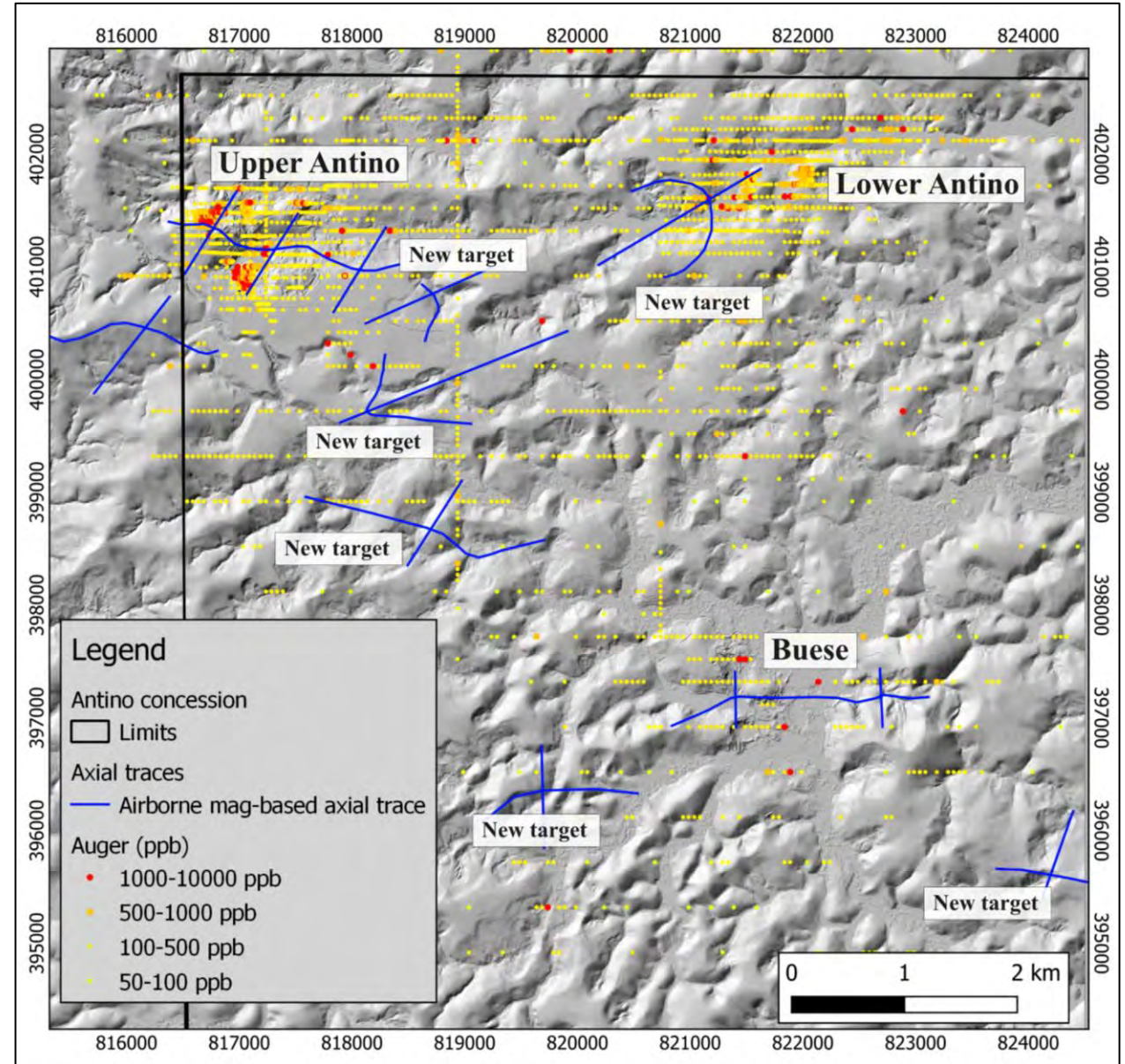
- Multiple Au-bearing shear structure with spatial association with fold structures





# Antino Project

- NW corner of the concession
- **3 main historical targets**
- Multiple new targets generated in 2023
- **Two styles of gold mineralization identified (both orogenic gold):**
  - shear zone hosted, mostly at lithological contacts (high grade, up to 400 g/t)
  - intrusion-hosted (lower grades but potential for large volume)
- Exploration work (2023-2024)
- **Upper Antino:** diamond drilling, IP survey, ground survey, mapping, trenching
- **Buese:** mapping, sampling, auger, IP survey



# Upper Antino Exploration Target



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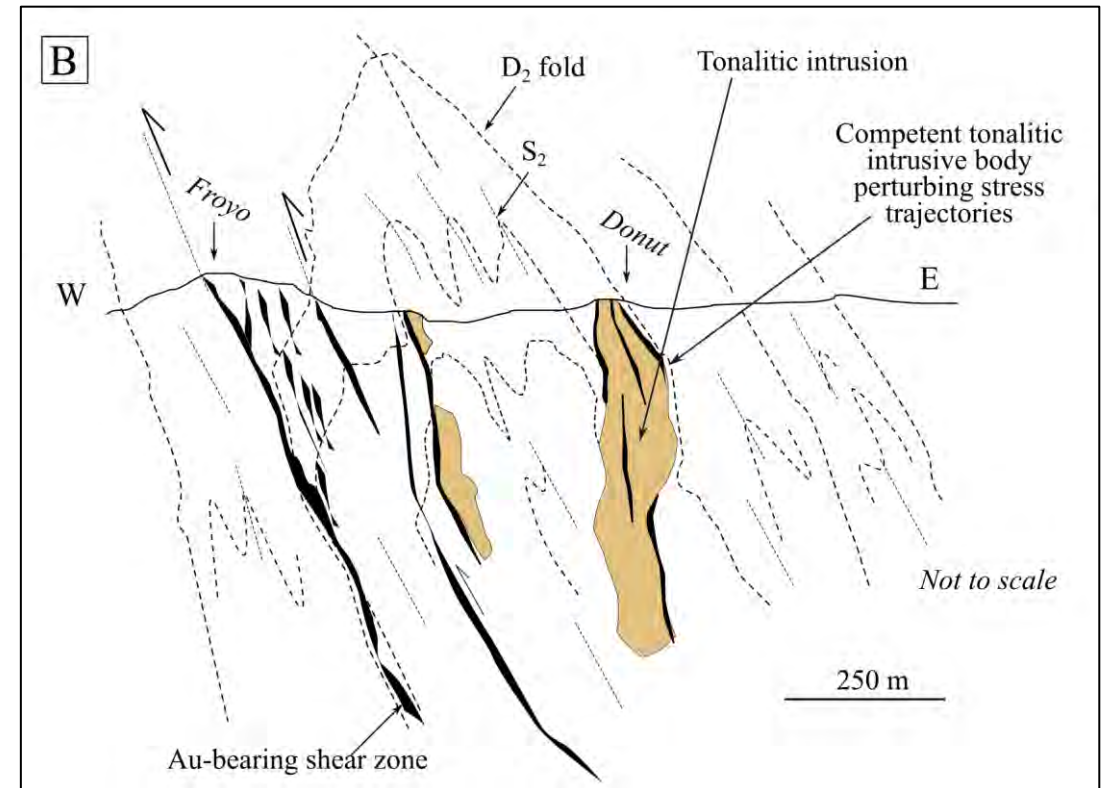
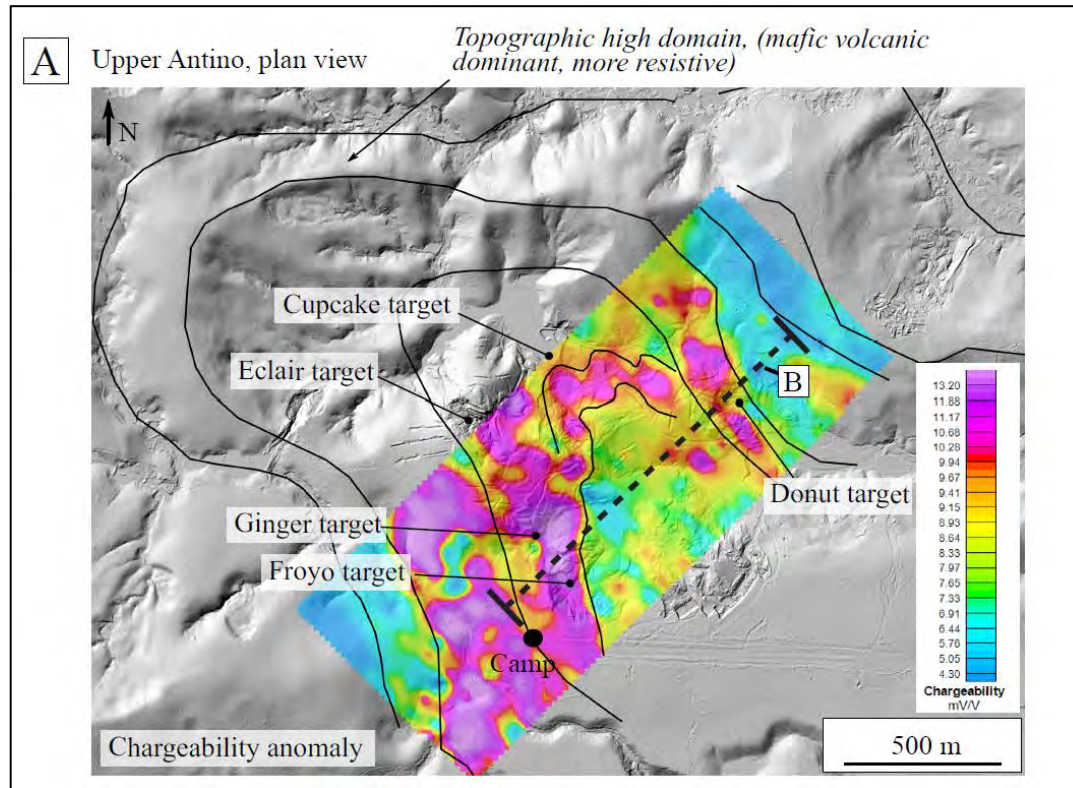




# Upper Antino

- Fold closure of NW plunging fold structure
- Based on mapping, Lidar and IP

- Froyo East dipping, Cupcake and Donut West dipping

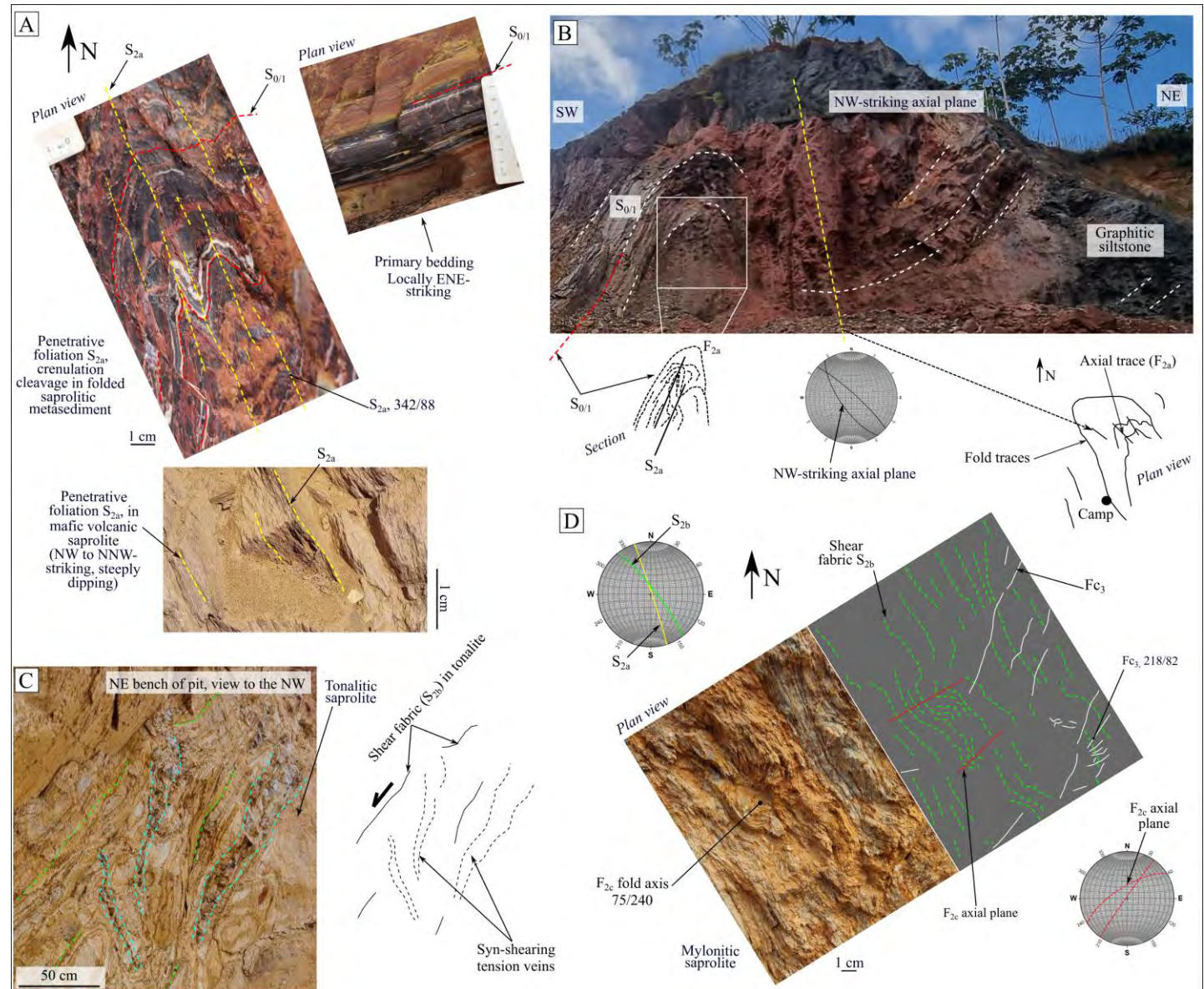
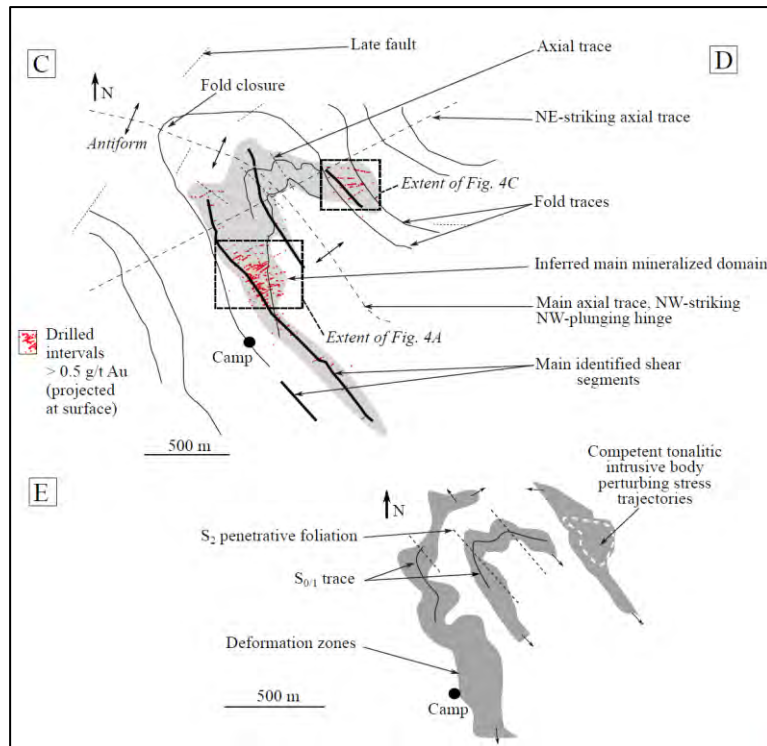






# Upper Antino

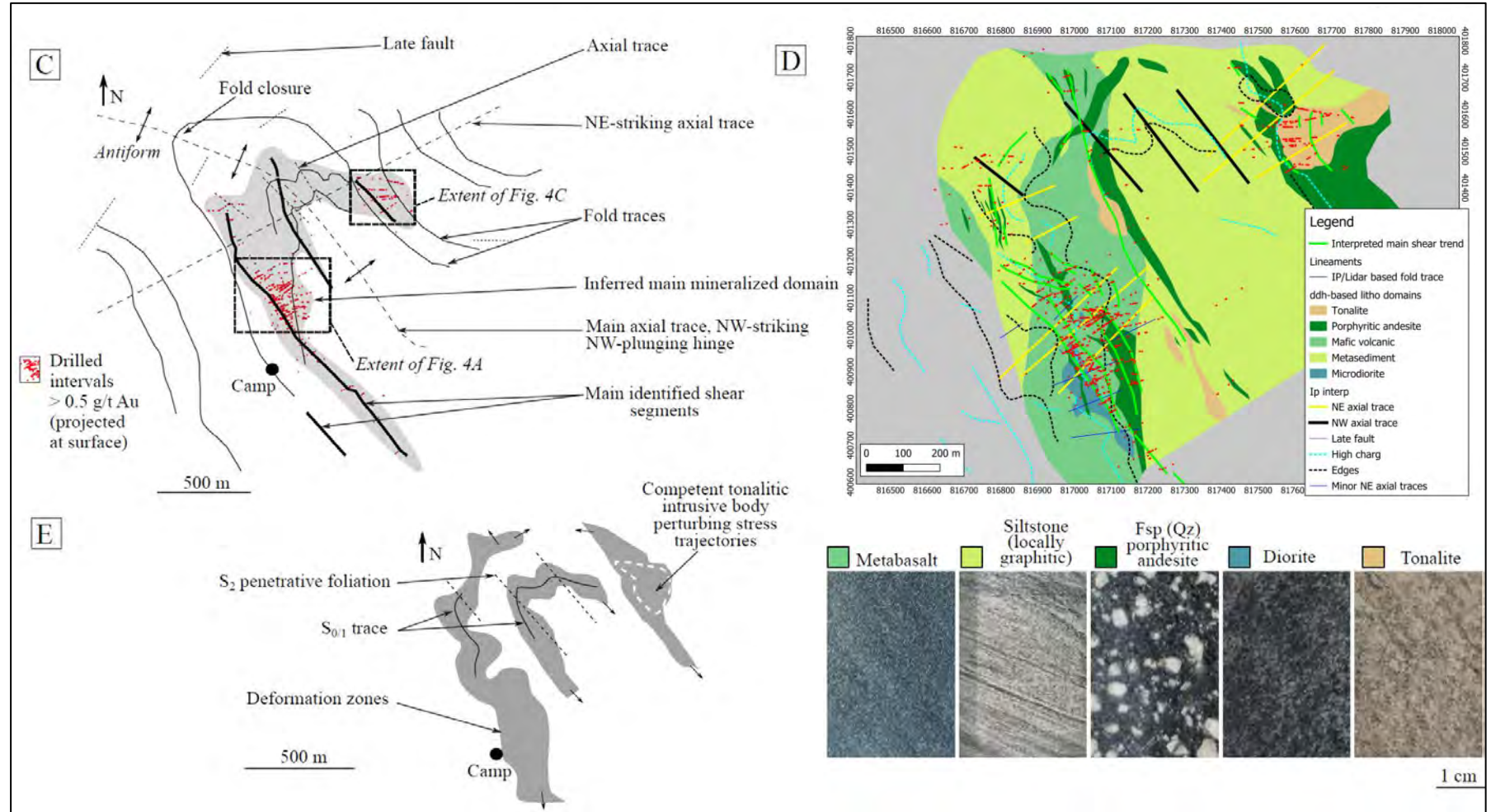
- Fold closure of NW plunging fold structure
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# Upper Antino

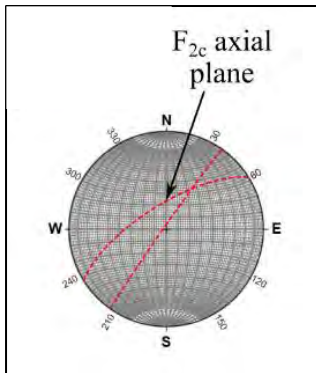
- Fold closure of NW plunging fold structure
- Based on mapping, Lidar and IP



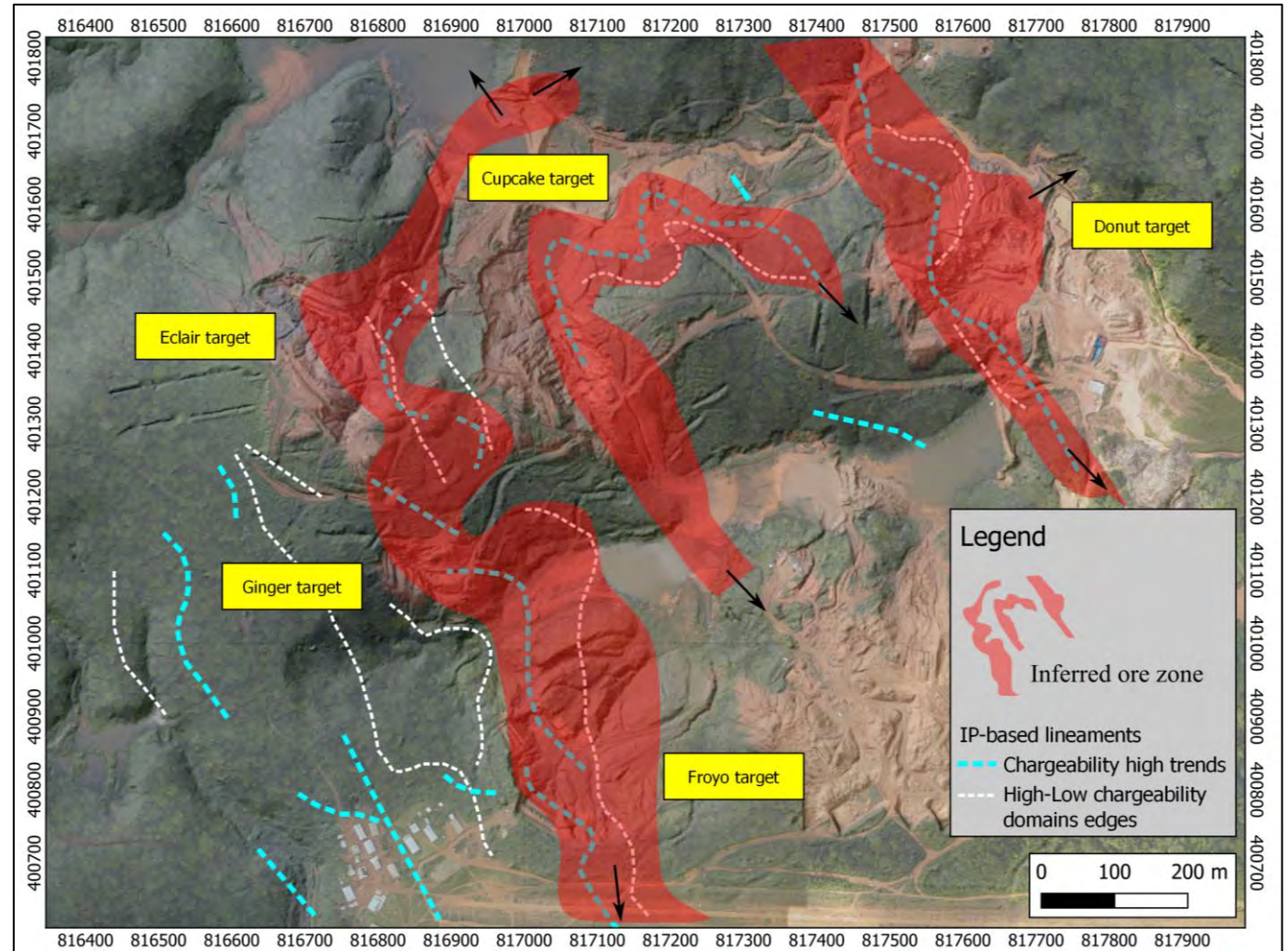


# Upper Antino

- Shear NW-striking
- Importance of NE for refolding = NE-striking axial traces
- Importance of NE trend = post-shearing brittle deformation



Based on mapping  
and oriented ddh

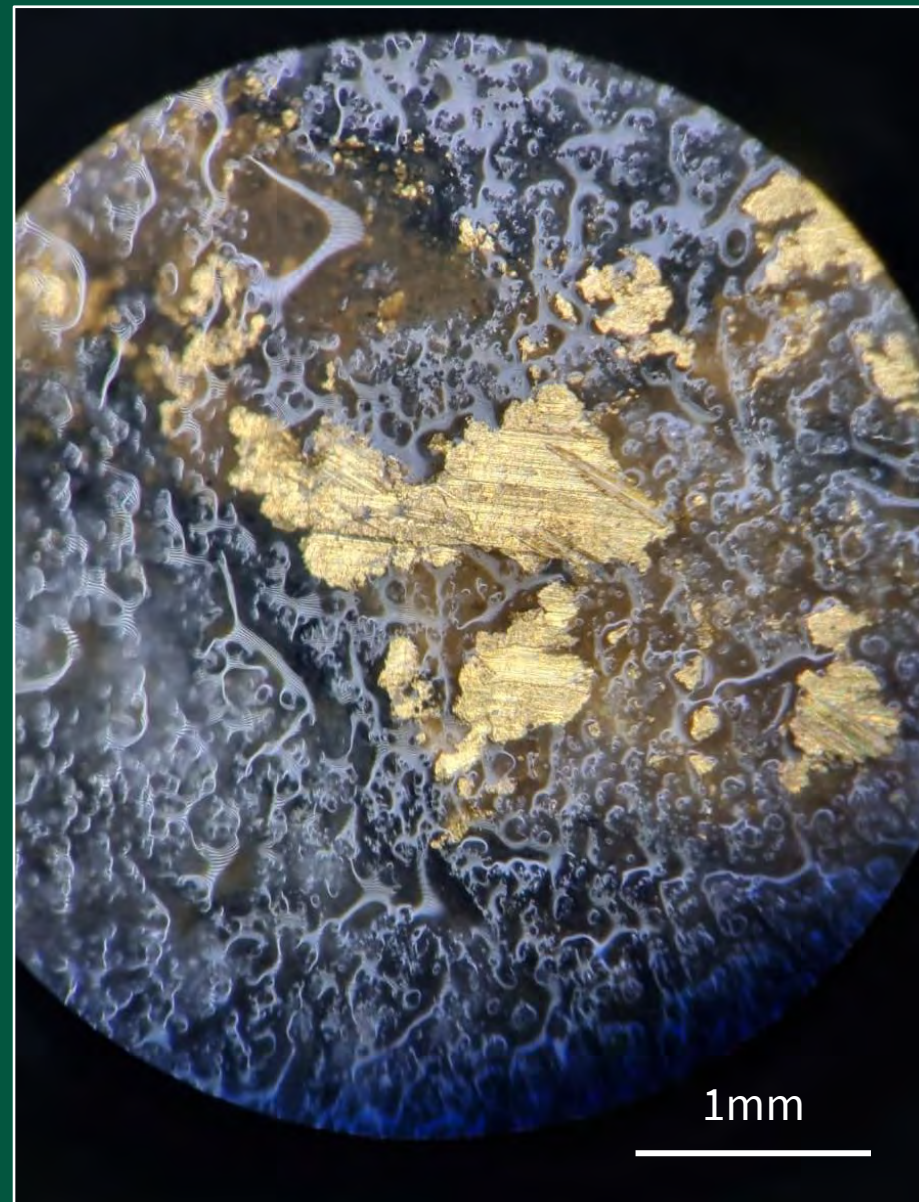


Based on mapping  
and IP lineaments

# Upper Antino 2023- 2024 Drill Target



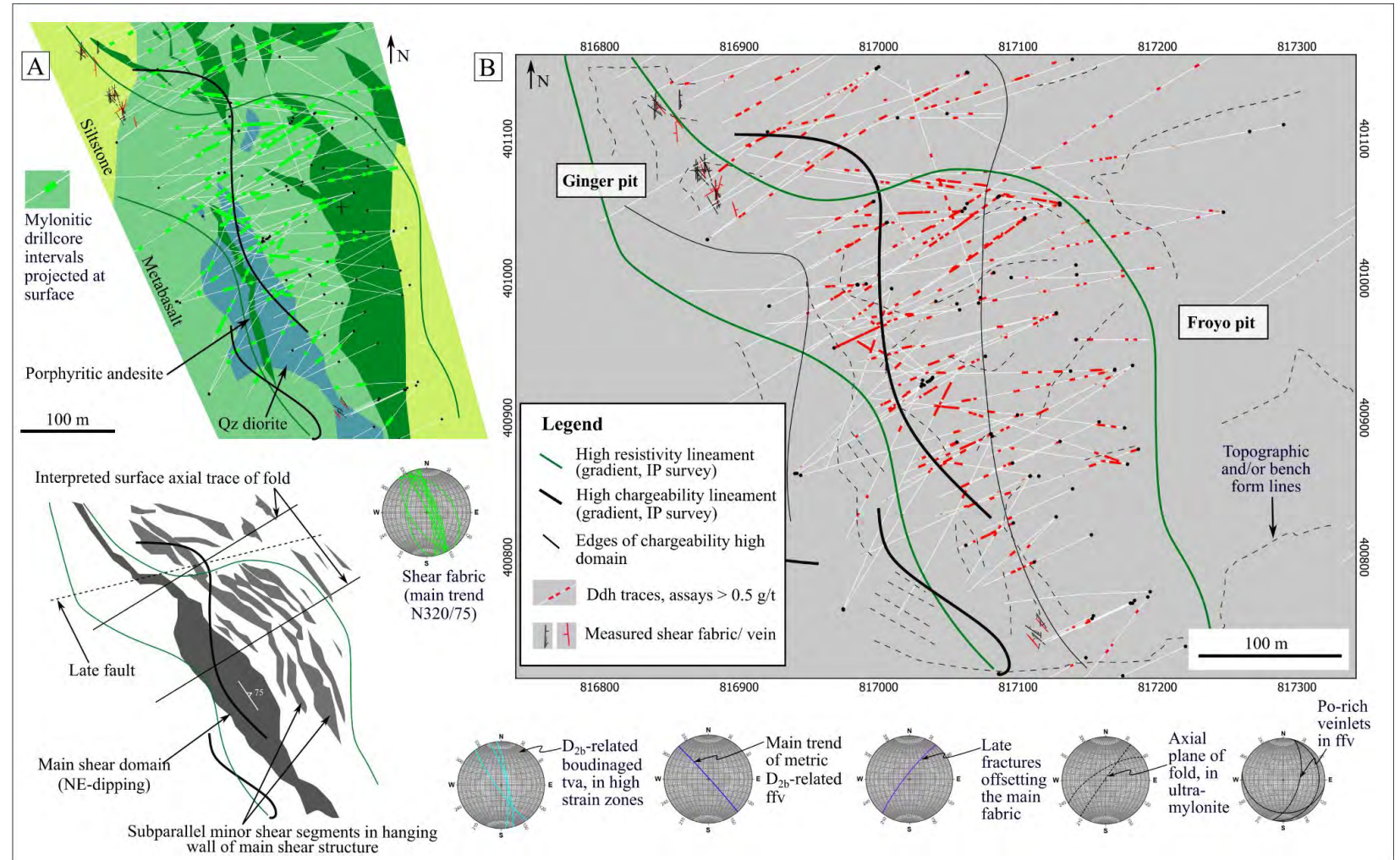
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# Froyo-Ginger Drill Target

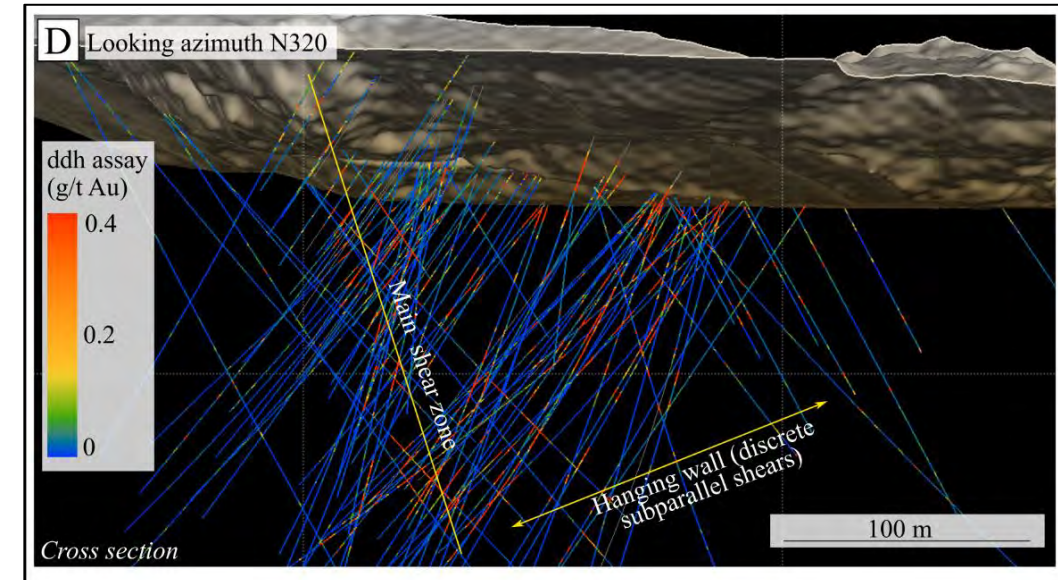
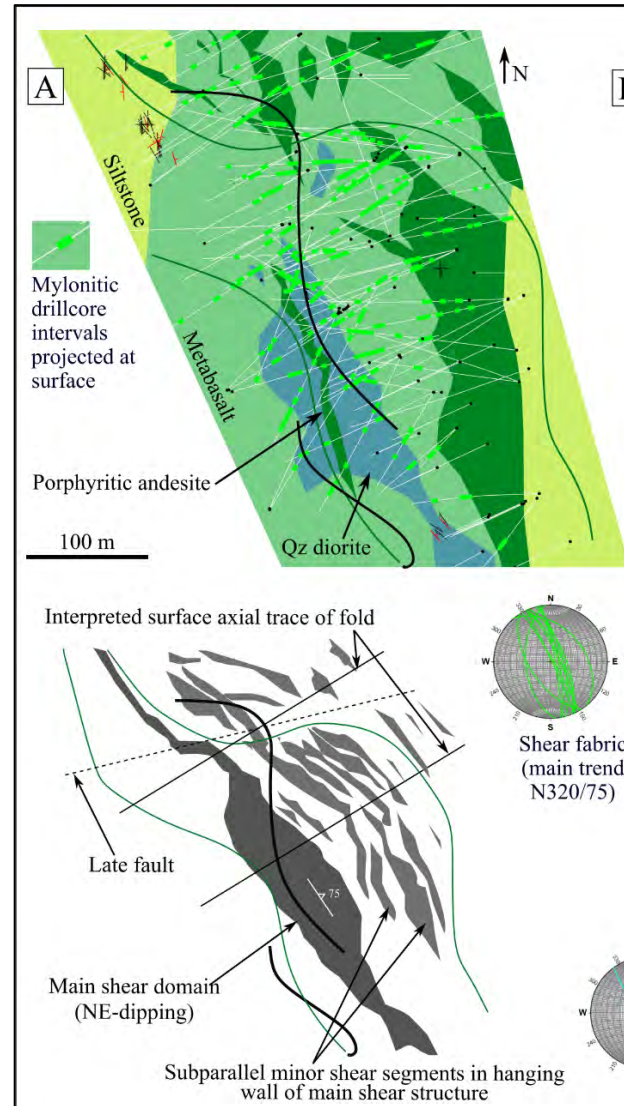
- Interesting width: 38m, 45m or 26m long intervals
- > 200m wide ore zone
- Multiple ore zones: example hole **FRDD45**
- 1 main shear
- Multiple subparallel shears
- Reusing lihto contacts and pre-existing fabric
- Fold structure with NE axial traces





# Froyo-Ginger Drill Target

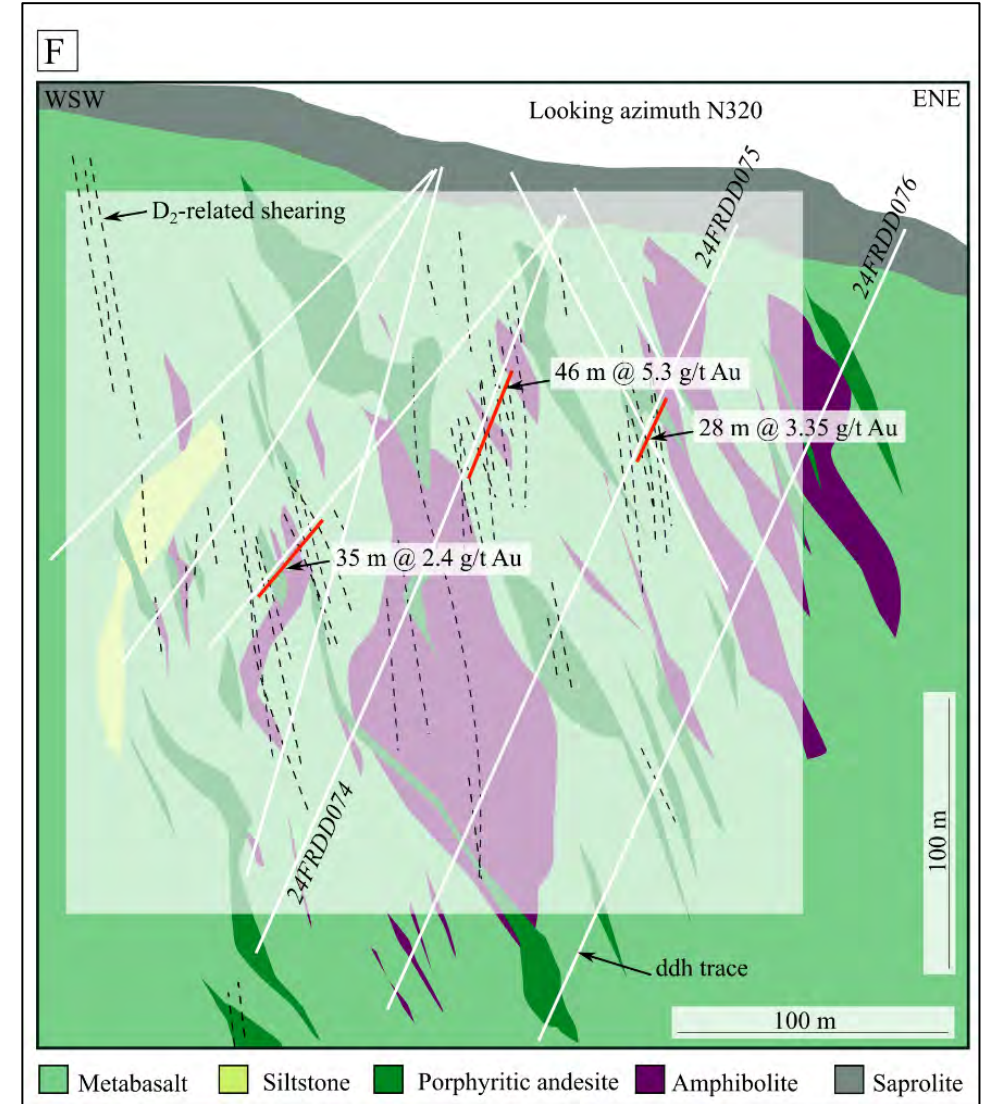
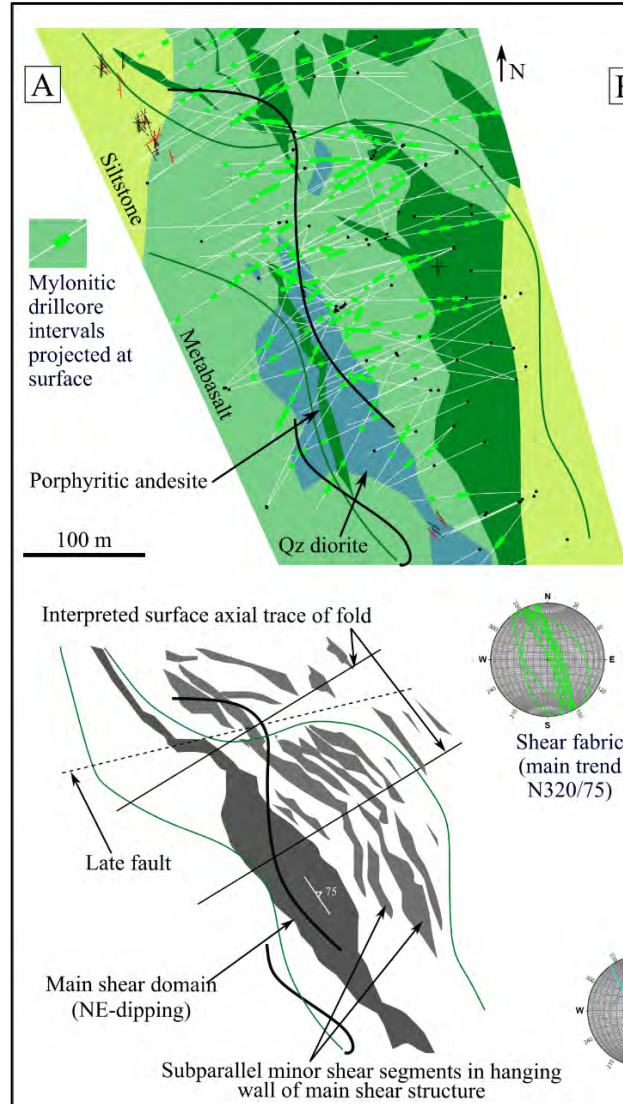
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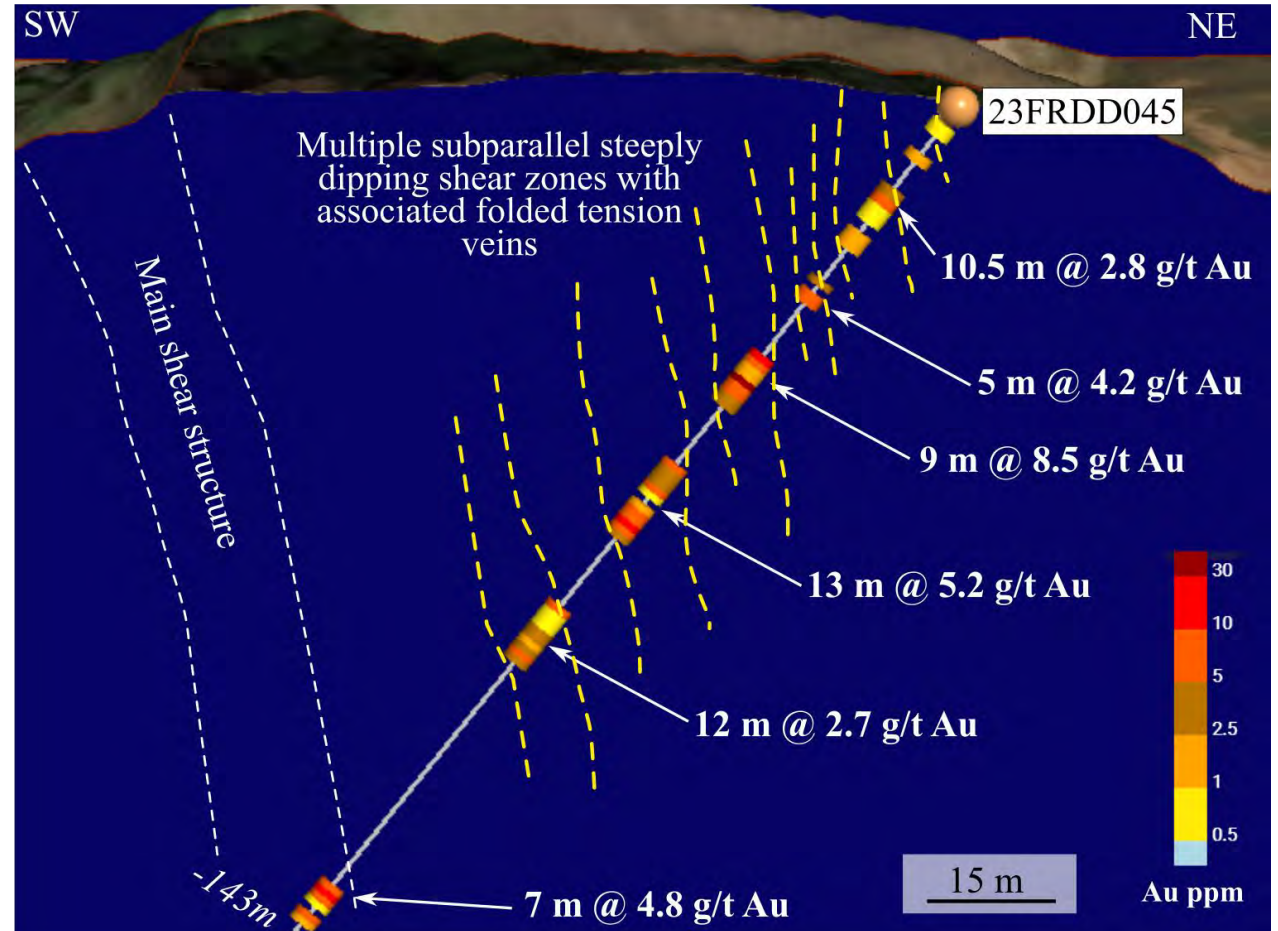




# Froyo-Ginger Drill Target

- Interesting width: 38m, 45m or 26m long intervals
- > 200m wide ore zone
- Multiple ore zones: example hole FRDD45
- **Best Intervals Include:**

Hole ID	Intervals
Drillhole 24GG013	<b>44.0 m @ 2.05 g/t Au</b>
Drillhole 24FR74	<b>46 m @ 5,31 g/t</b>
Drillhole 24GG04	<b>38 m @ 10.90 g/t Au</b>
Drillhole 23FR030	<b>26.00 m @ 6.35 g/t Au</b>
Drillhole 23FR027	10.50 m @ 8.91 g/t Au from Froyo-Ginger Connector Zone
Drillhole 23FR025	45.79 m @ 4.06 g/t
Drillhole 23FR014	15.50 m @ 30.72 g/t including 5.80 m @ 54.61 g/t





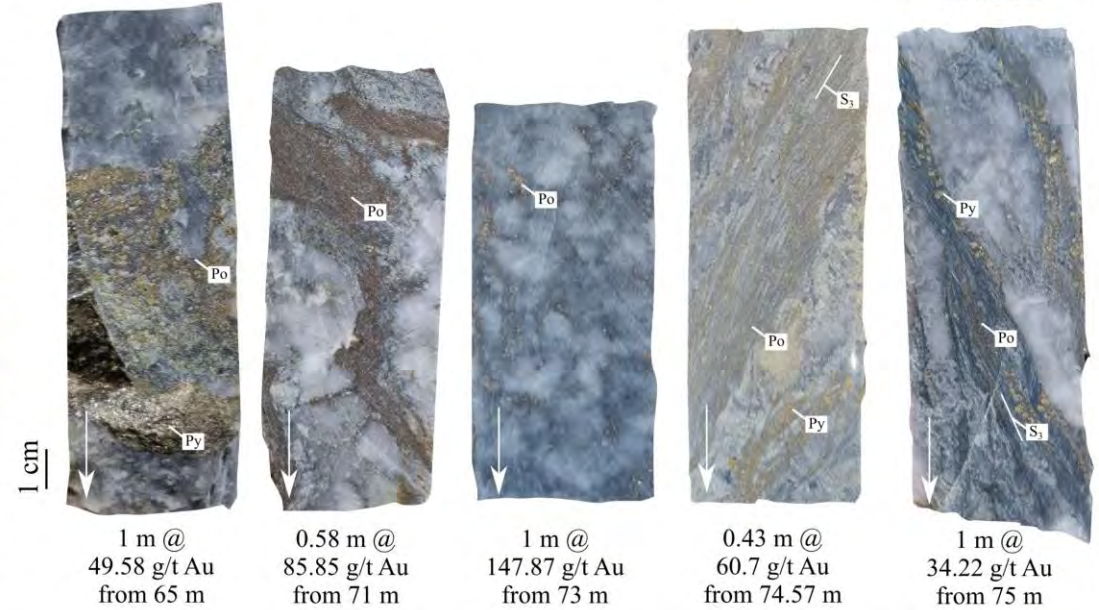


# Froyo-Ginger Drill Target

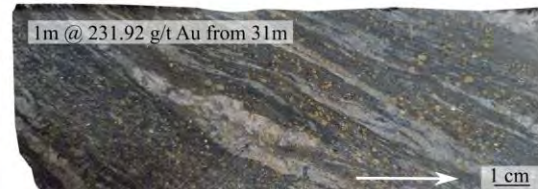
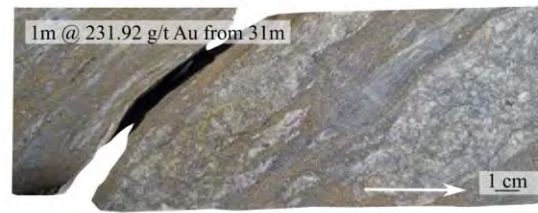
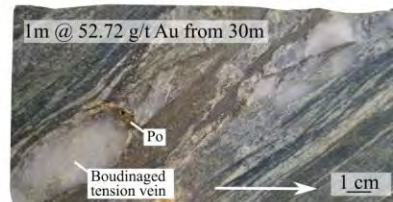
- Very High grade intervals
- **Highest grade in the NW extension : 1.0 m @ 434.98 g/t Au**

Example high grade gold mineralization: drillhole 23FRDD014

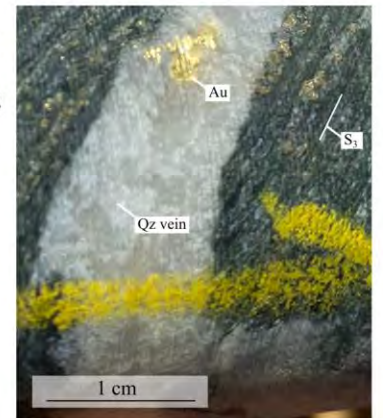
From (m)	To (m)	Assay (g/t Au)
63	64	1,19
64	65	47,3
65	66	49,58
66	67	15,45
67	68	2,372
68	69	3,97
69	70	3,97
70	71	27,6
71	72	64,84
72	73	9,73
73	74	147,87
74	75	37,83
75	76	34,22
76	77	7,9
77	78	14,45
78	79	23,42
79	80	0,321



Example high grade gold mineralization: drillhole 23FRDD026



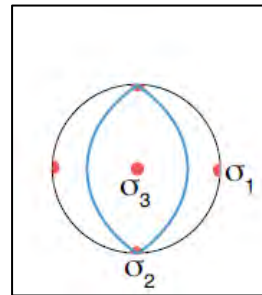
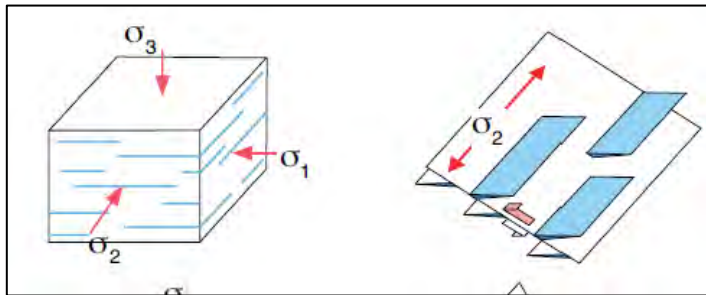
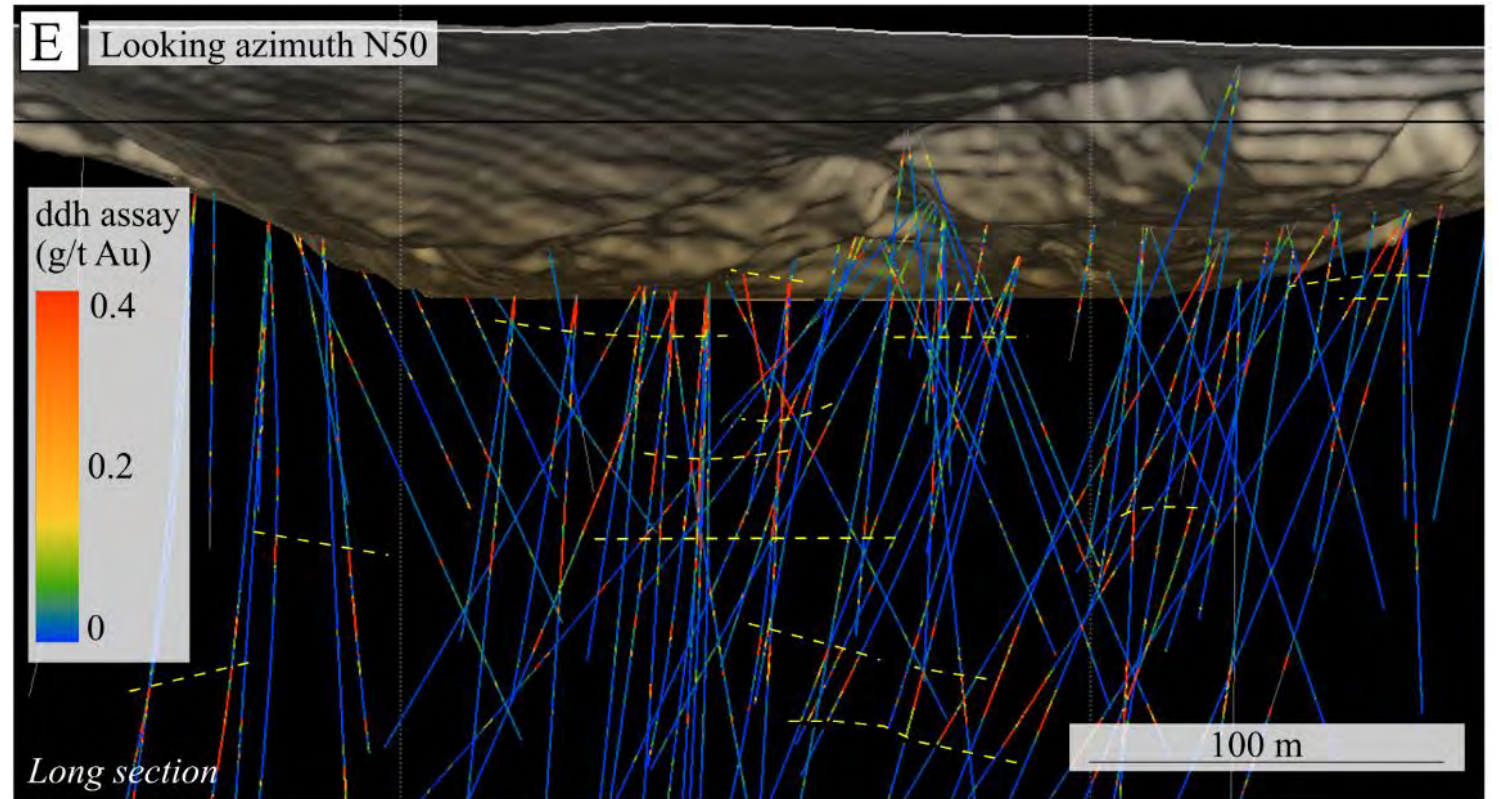
Example visible gold drillhole 23FRDD044





# Froyo-Ginger Drill Target

- Subvertical slip direction identified at Froyo-Ginger
- Long axis of the ore shoot is perpendicular to the slip direction observed in the shear plane so subhorizontal ore shoot for dip-slip reverse shearing (=  $\sigma_2$ , fluid flow vector)



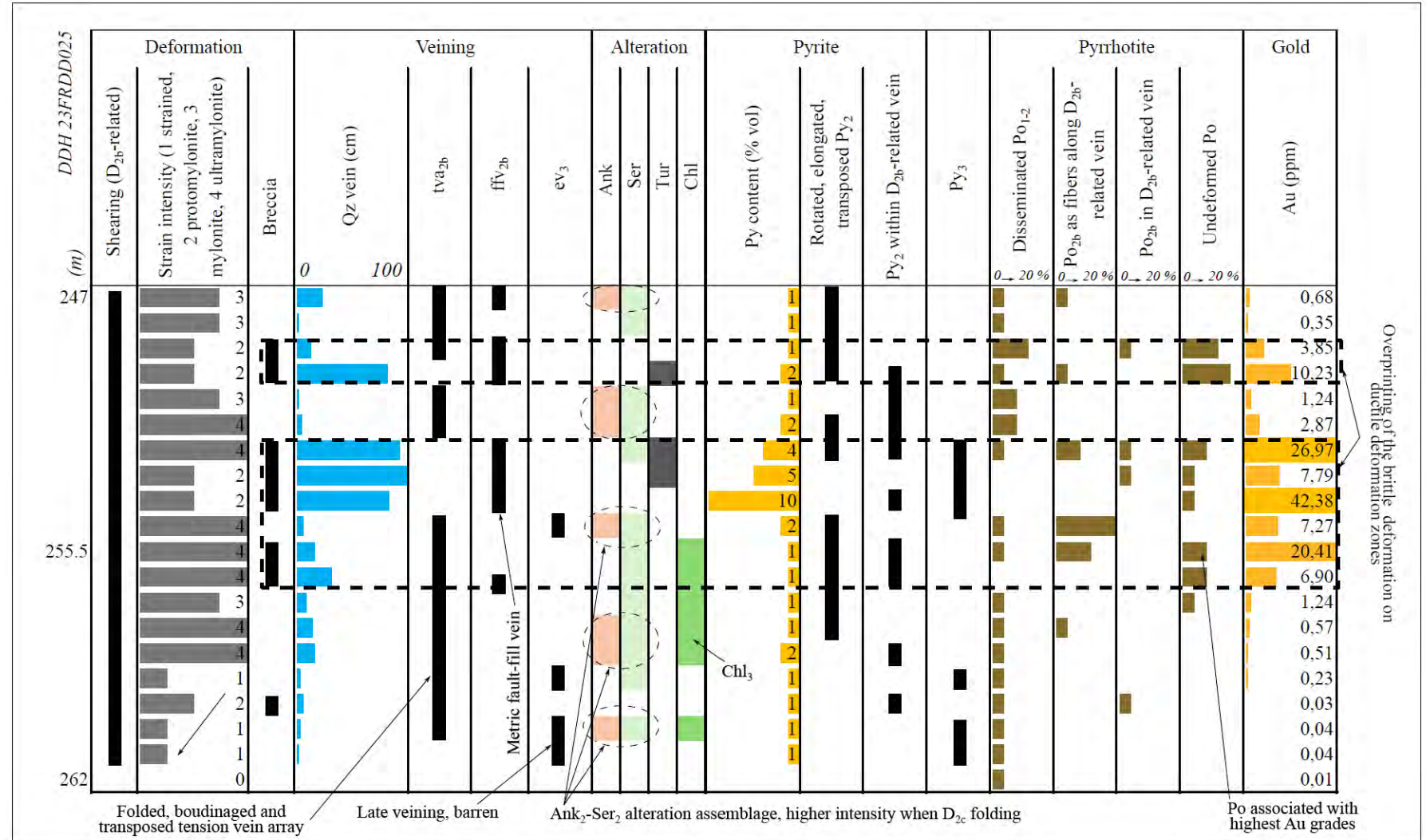
Cox (2020)

Ore shoot are subhorizontal and repeated at depth.  
The drilling should target same depth of identified ore shoot, along strike



# Example Re-log

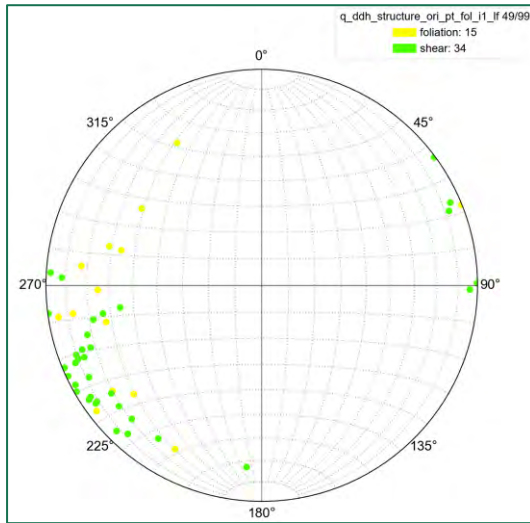
- Complex controls on gold content:
  - Importance of pre-existing features
  - Importance of folding
  - Importance of brittle over-printing





# Main Facies

- Deformation stages and vein system



Hole 74: S2a penetrative foliation (in yellow) and S2b (in green). The strike of the shear fabric (away from microfolding/bending associated with D2c) remains the same along the Froyo-Ginger structure =N320/70-75.

1 cm

Metasedimentary unit  
Crenulation cleavage,  
coaxial shortening D<sub>2a</sub>

Mylonitic facies  
S<sub>2b</sub> shear fabric formed  
during progressive ductile  
deformation D<sub>2</sub>

Subvertical striations developed on shear plane  
(mineral lineation marked by Py<sub>2b</sub>)  
=> dip-slip reverse shearing (NE side up)

Ser-Ank alteration,  
proximal to shearing  
and D<sub>2b</sub>-related Qz  
tension veins

Metric fault-fill vein  
syn-shearing

Ductile shearing  
with higher strain at  
edges of more competent  
domains  
(i.e. early Qz vein)

Continuous progressive ductile deformation

D<sub>2b</sub>-related folded tension vein

Early tension vein array transposed into the S<sub>2b</sub> shear fabric

D<sub>2b</sub>-related boudinaged tension

D<sub>2b</sub>-related boudinaged tension vein with Po<sub>2c</sub> located at neck of boudins

Syn (early)-D<sub>2b</sub> veining

Po<sub>2c</sub> clusters preferentially located at/near boudin's necks

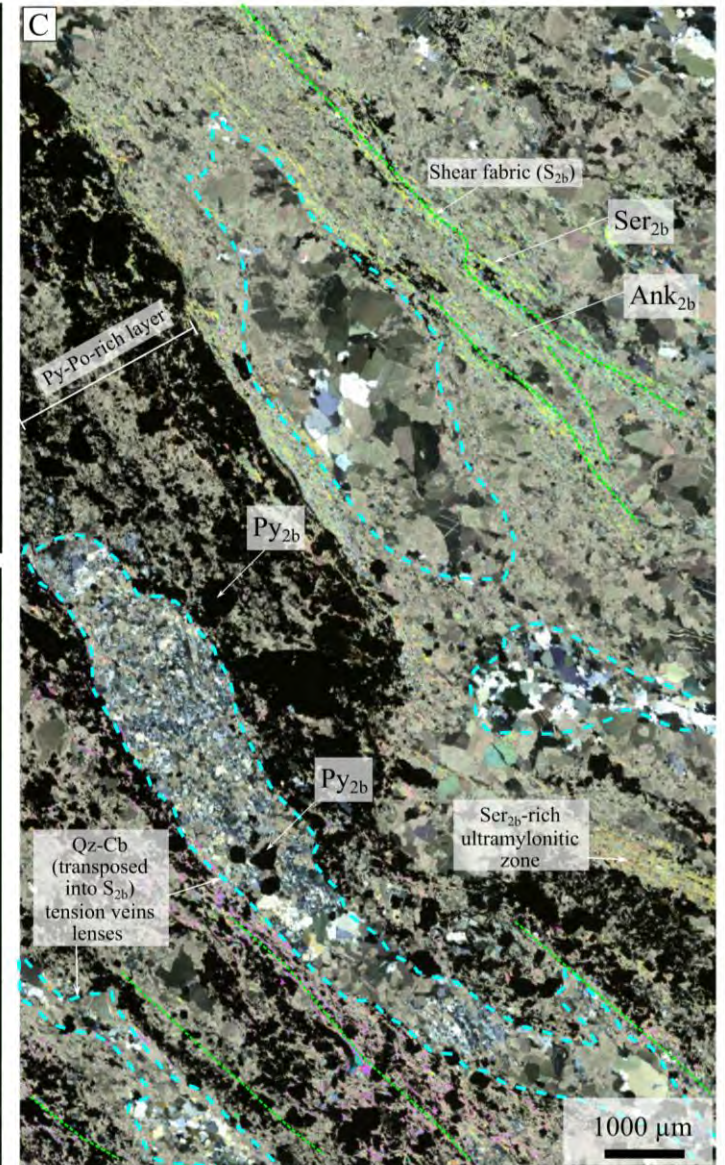
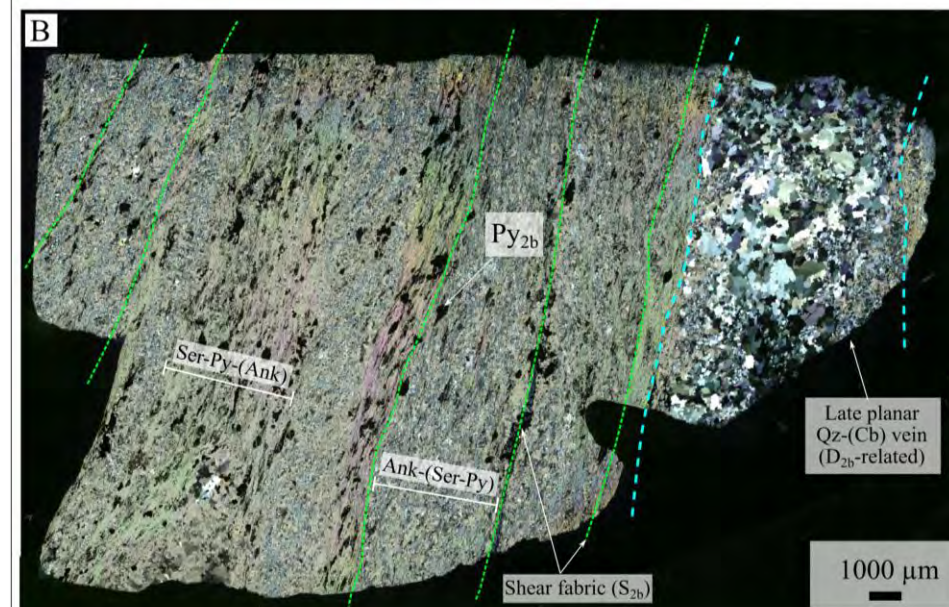
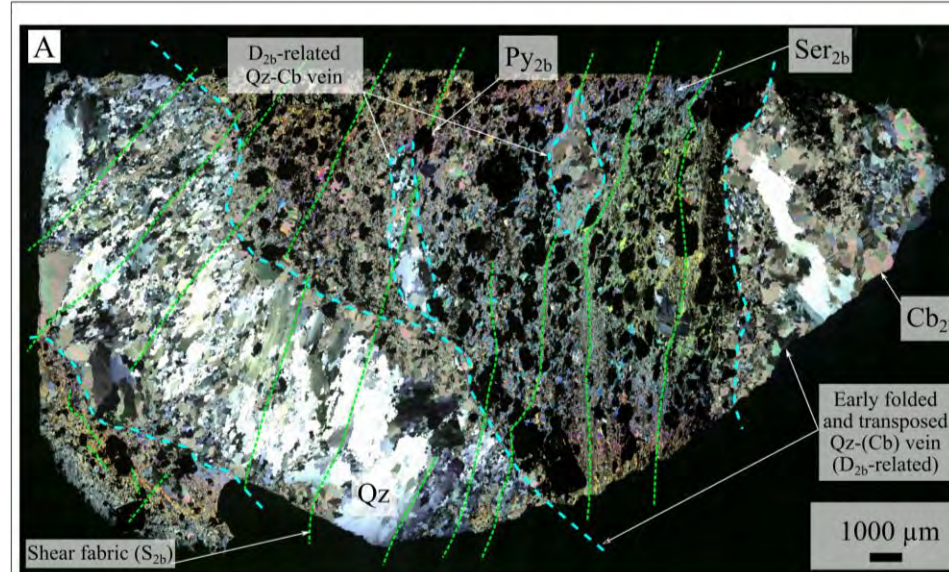
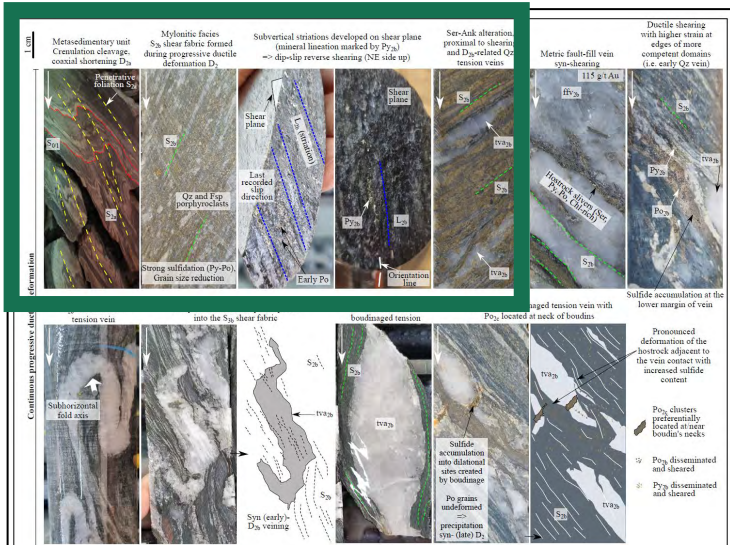
--- Po<sub>2b</sub> disseminated and sheared

☆ Py<sub>2b</sub> disseminated and sheared



# Main Facies

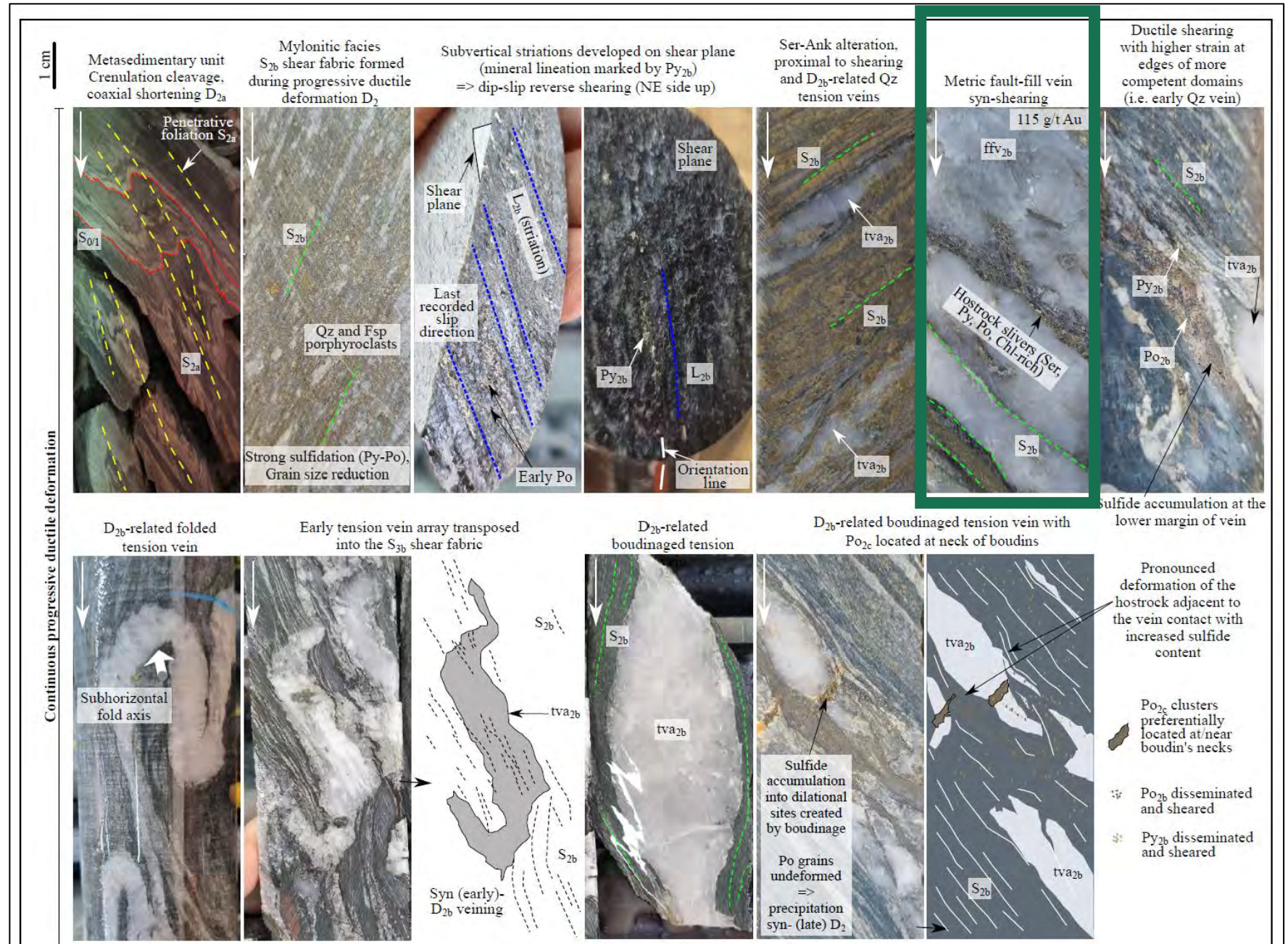
- Deformation stages and vein system





# Main Facies

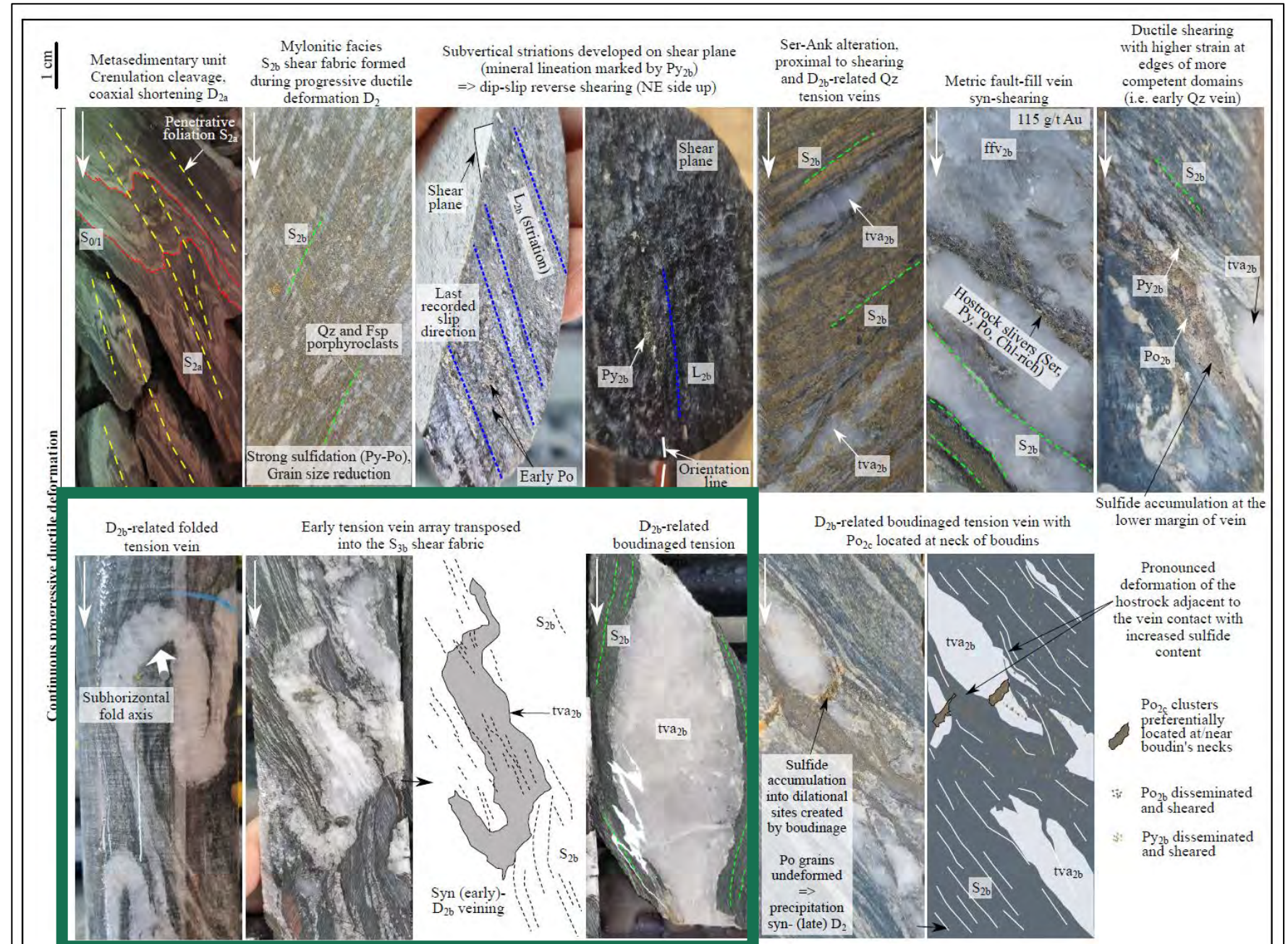
- Deformation stages and vein system





# Main Facies

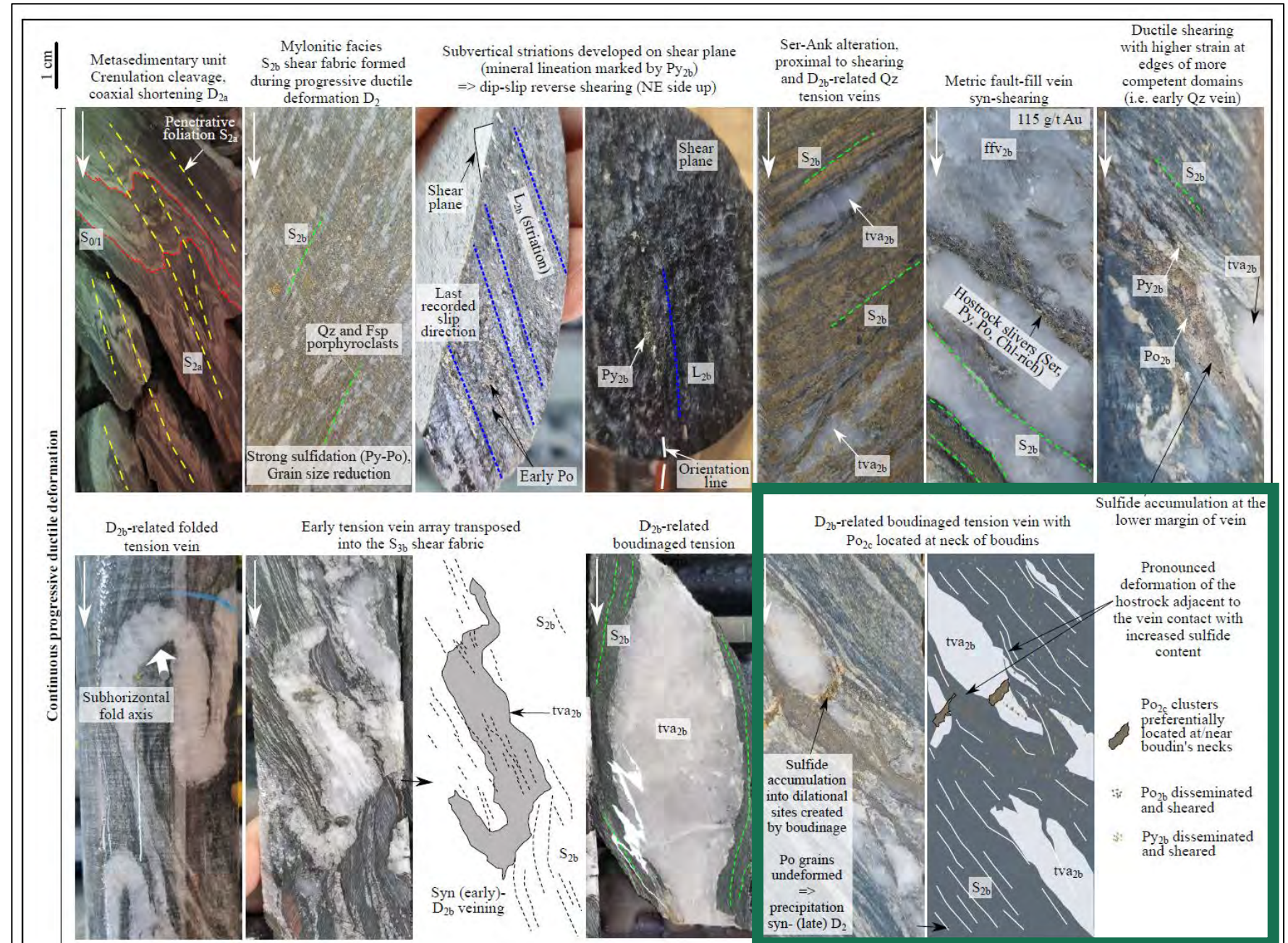
- Deformation stages and vein system





# Main Facies

- Deformation stages and vein system
- During subsequent deformation the vein will fold/boudinage creating low stress sites that will focus the deposition of subsequent hydrothermal fluids

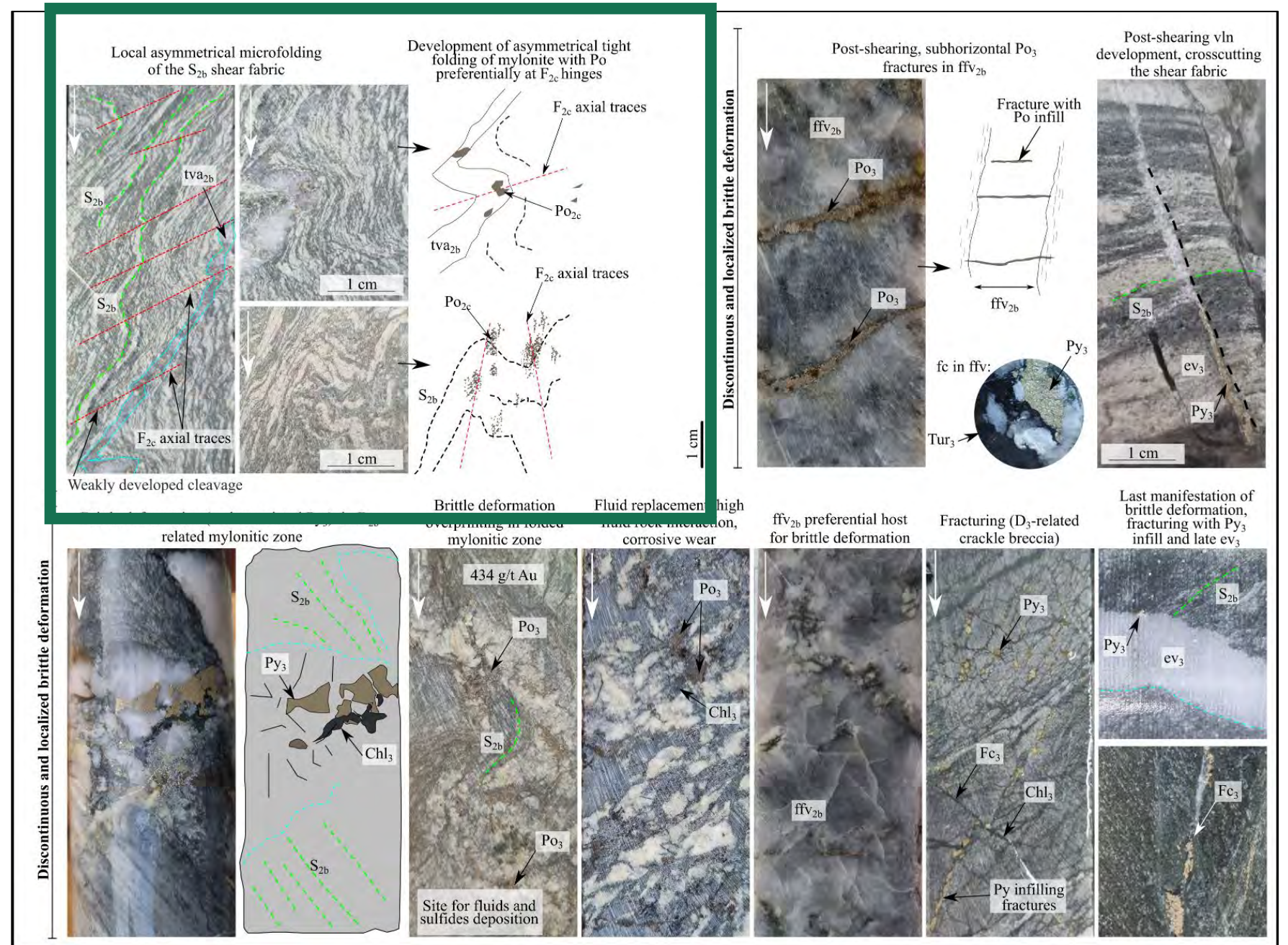






# Main Facies

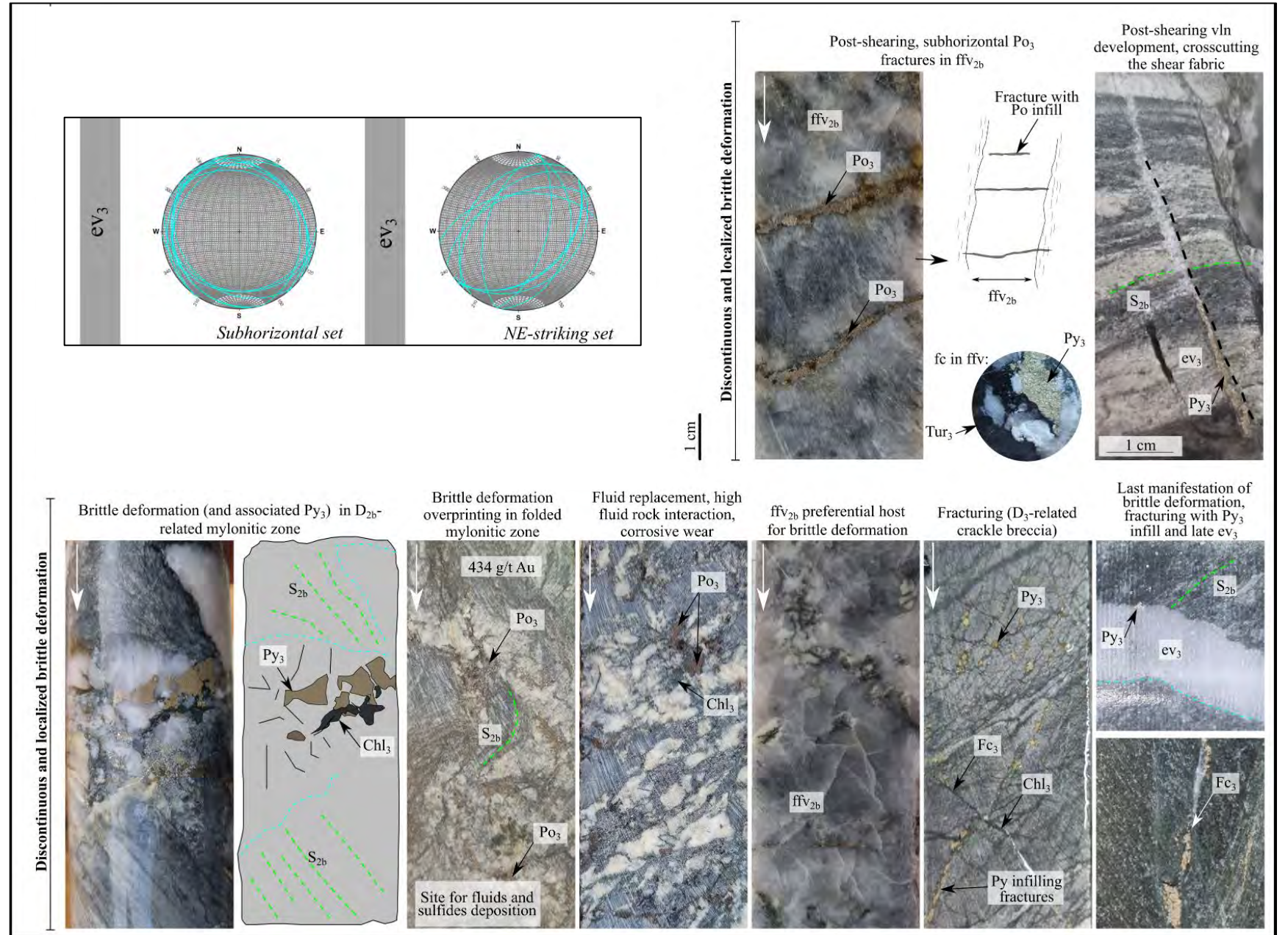
- Deformation stages and vein system





# Main Facies

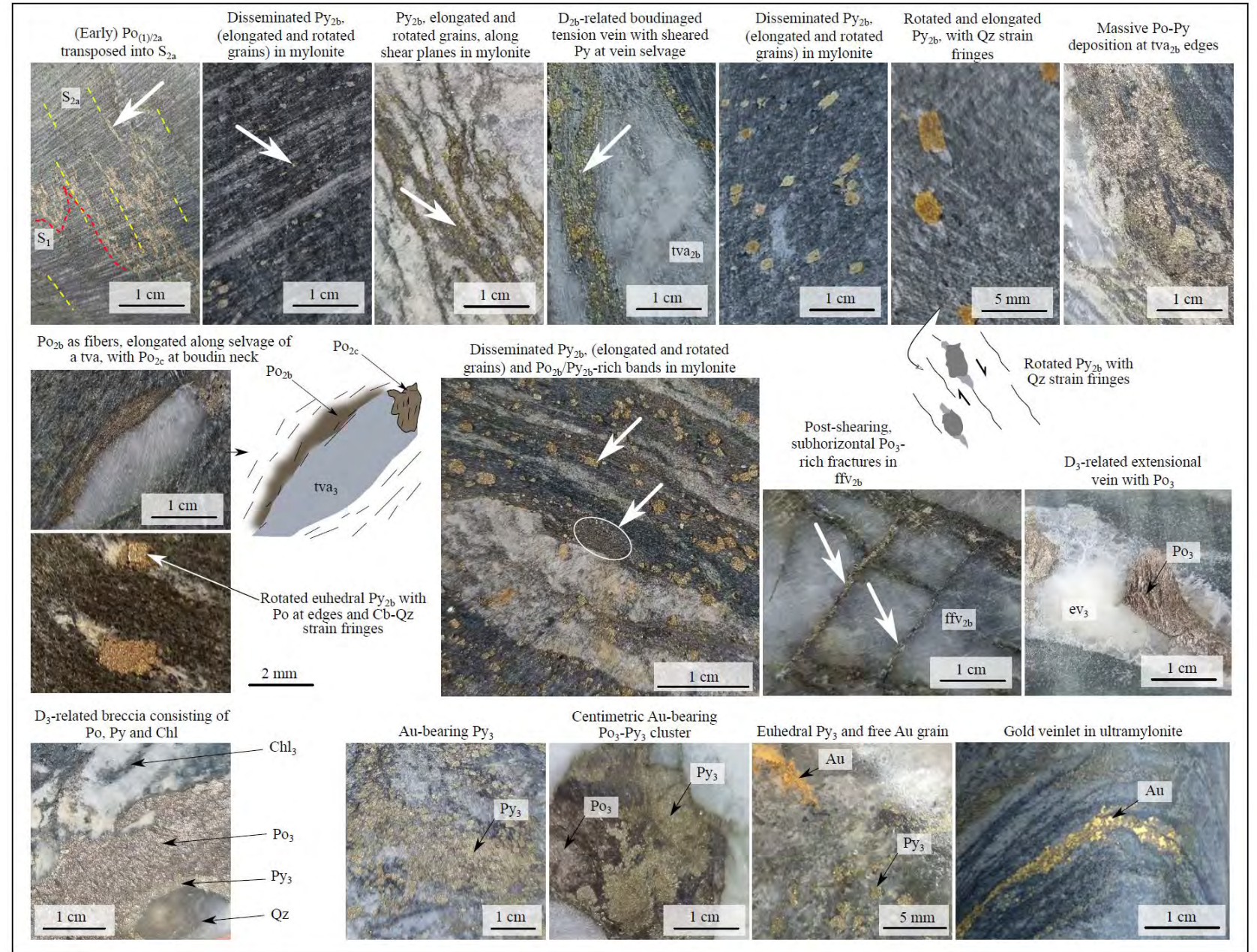
- Deformation stages and vein system
- Discontinuous and localized brittle def





# Main Facies

- Ore-related phases



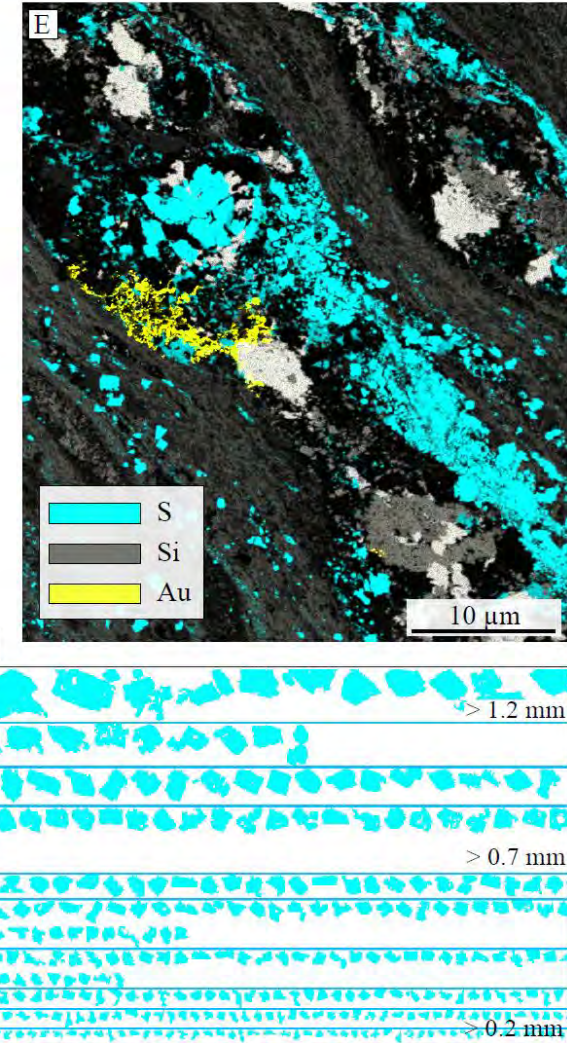
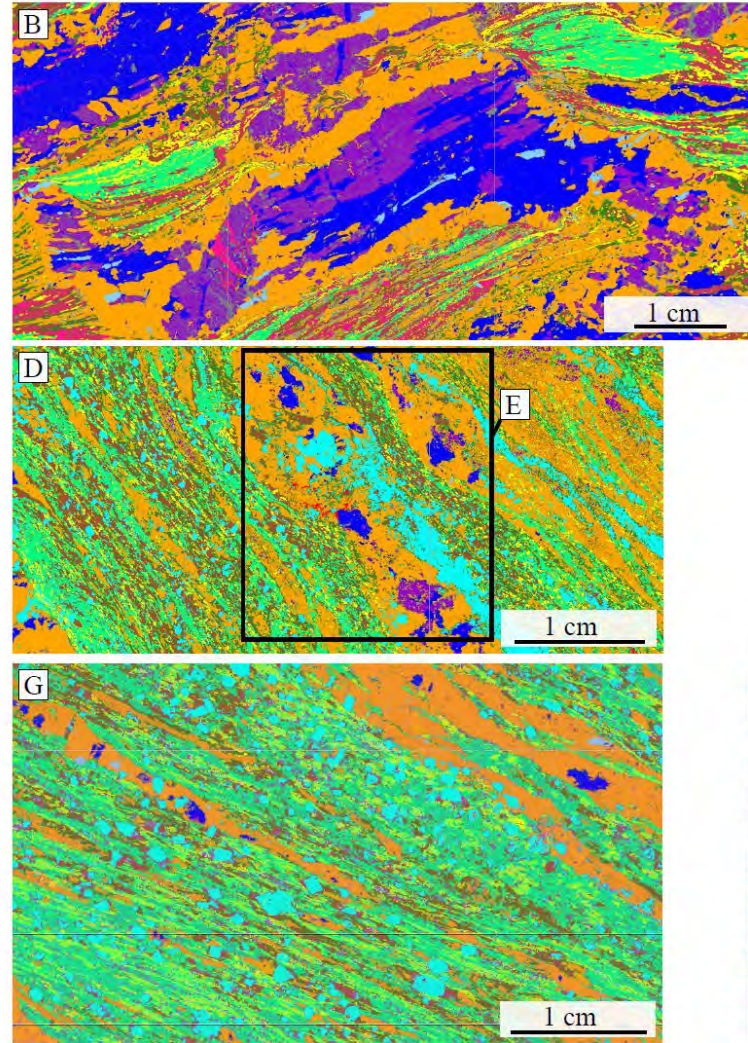
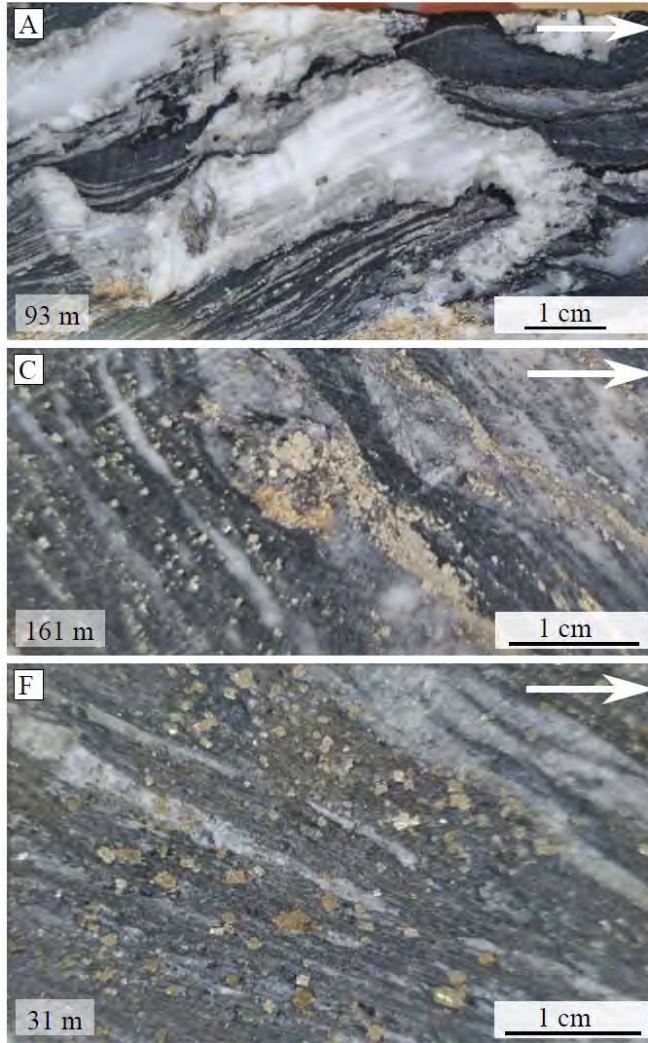


# Main Facies

- Ore-related phases
- $\mu$ xrf drillcore scans

Legend (mineral maps):

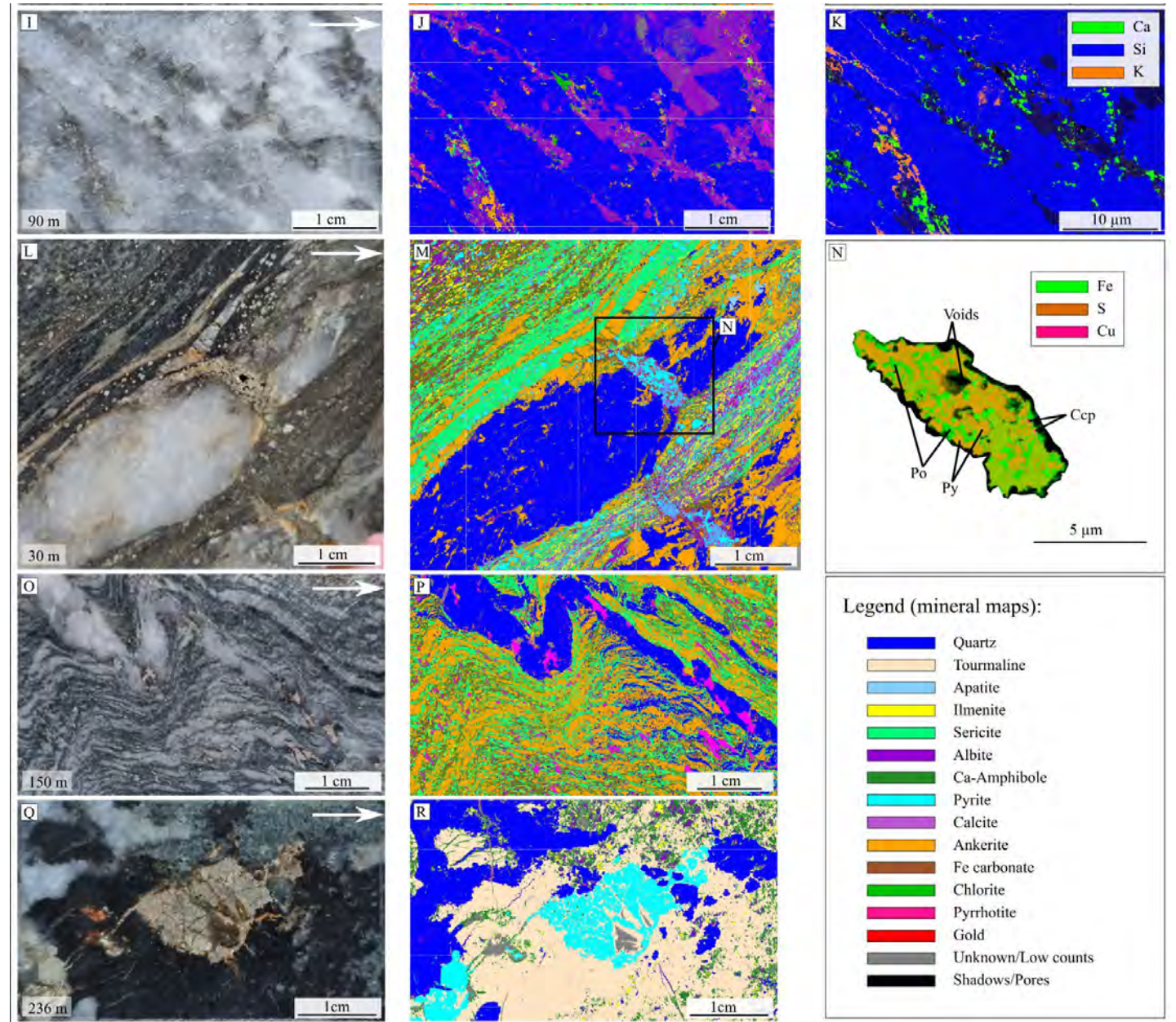
	Quartz
	Tourmaline
	Apatite
	Ilmenite
	Sericite
	Albite
	Ca-Amphibole
	Pyrite
	Calcite
	Ankerite
	Fe carbonate
	Chlorite
	Pyrrhotite
	Gold
	Unknown/Low counts
	Shadows/Pores





# Main Facies

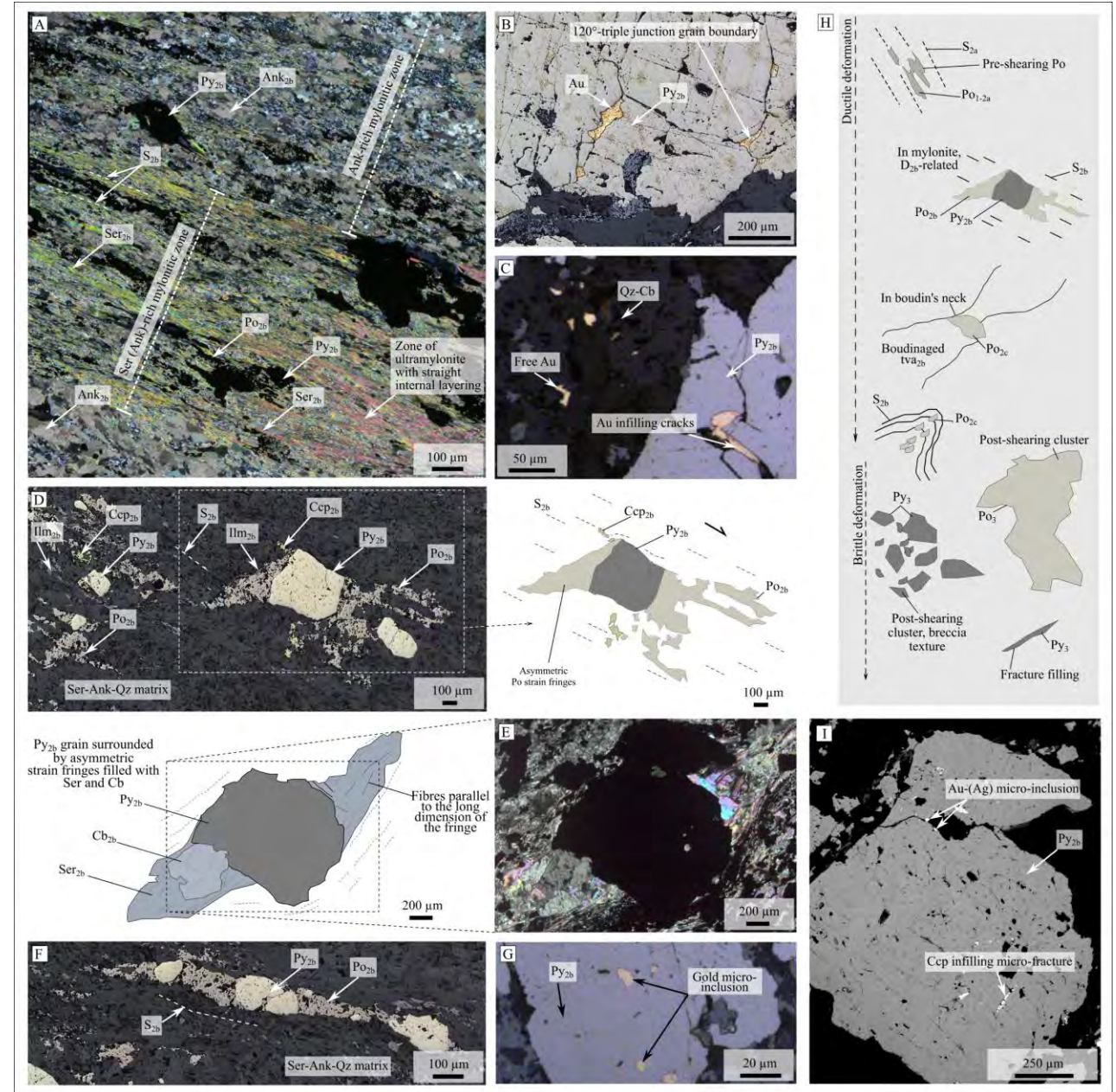
- Ore-related phases
- $\mu$ xrf drillcore scans





# Au Controls at the core-scale

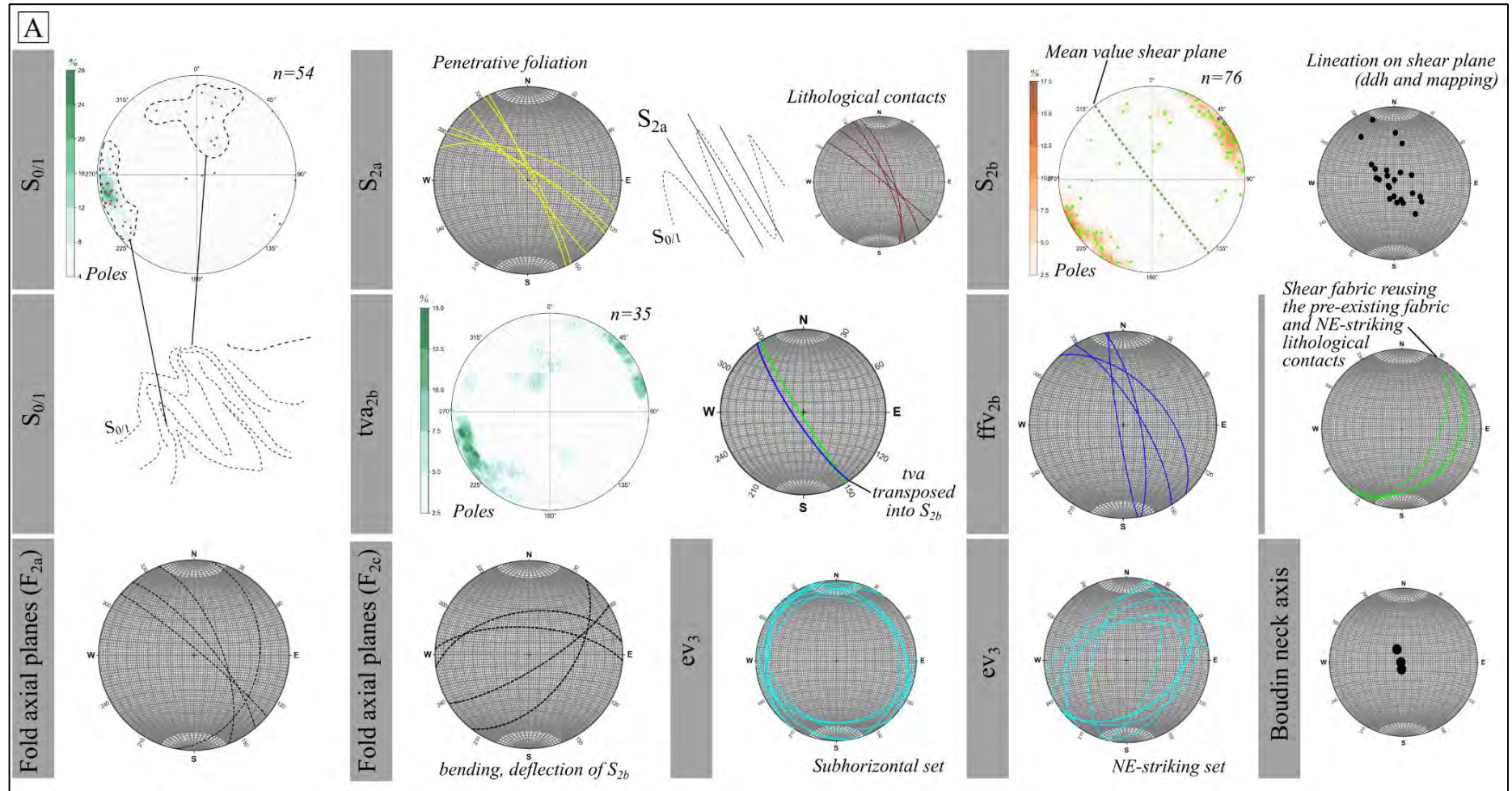
- Gold occurs mainly as:
  1. free gold in quartz carbonate veins
  2. free gold within sericite-(ankerite)-rich mylonite, and as both
  3. micro-inclusions
  4. gold infill in microfractures/cracks/grain joints within sheared pyrite grains related to the local D2b deformation stage





# Froyo-Ginger Target Summary

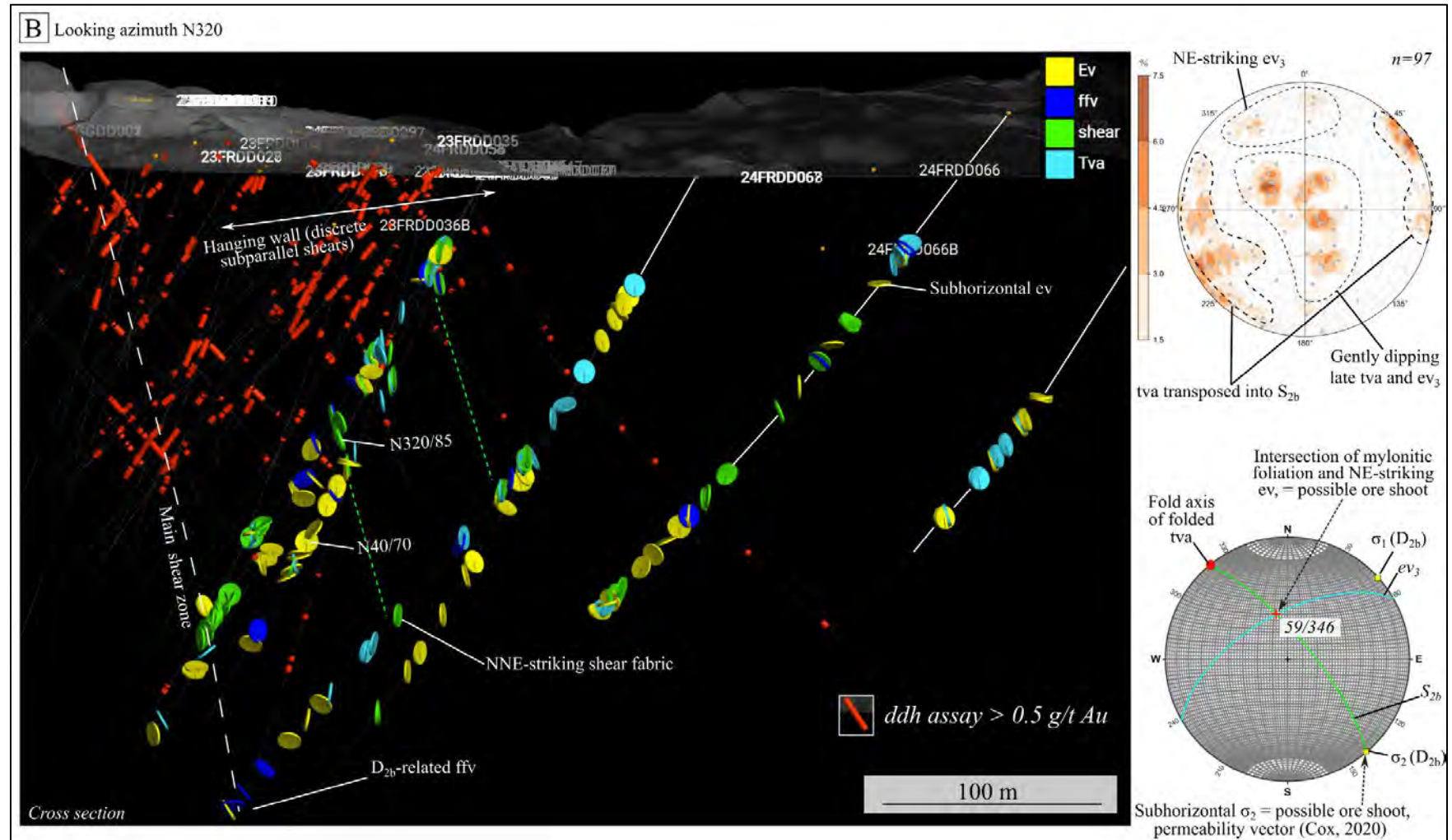
- Oriented Core





# Froyo-Ginger Target Summary

- Oriented Core

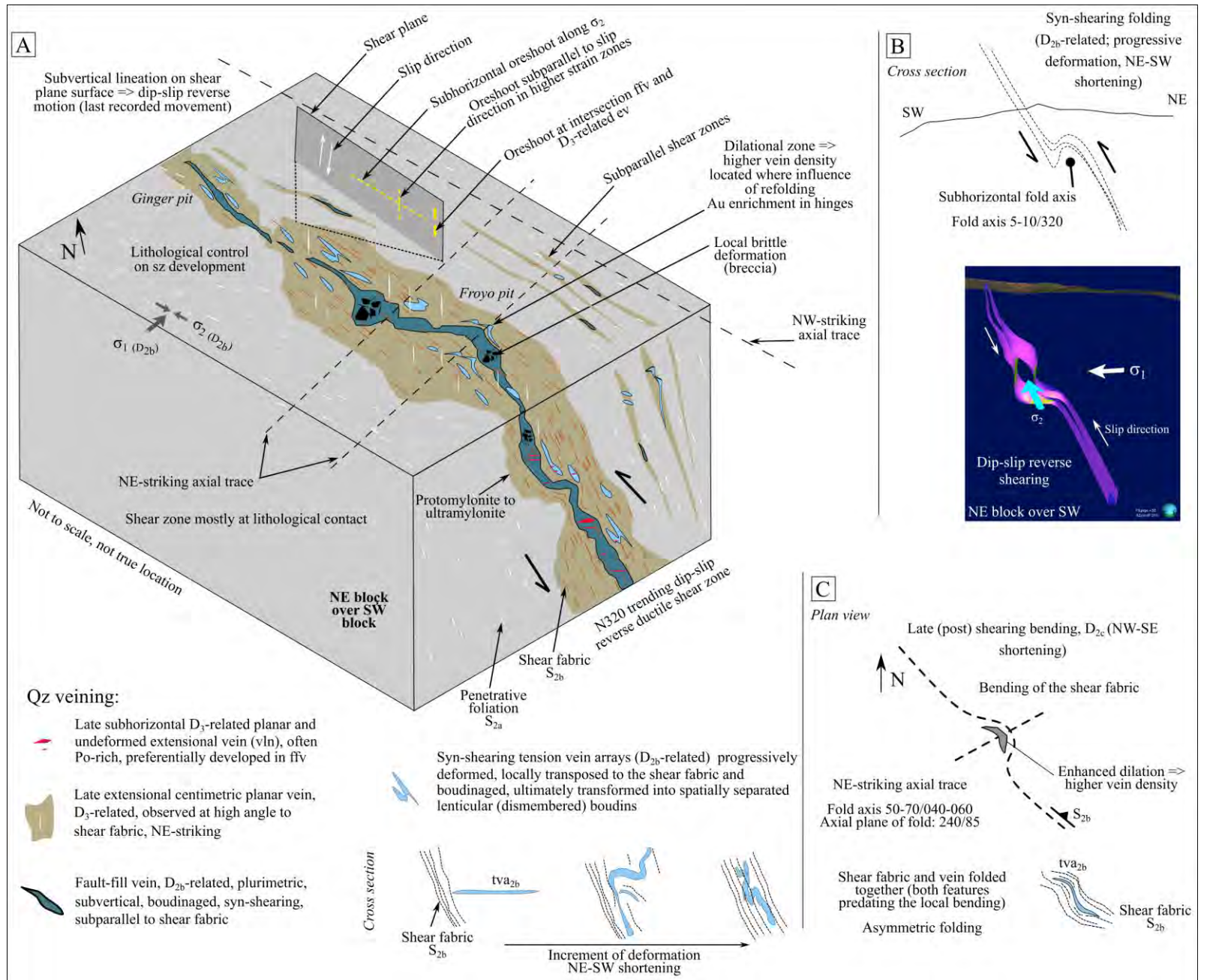






# Froyo-Ginger Target Summary

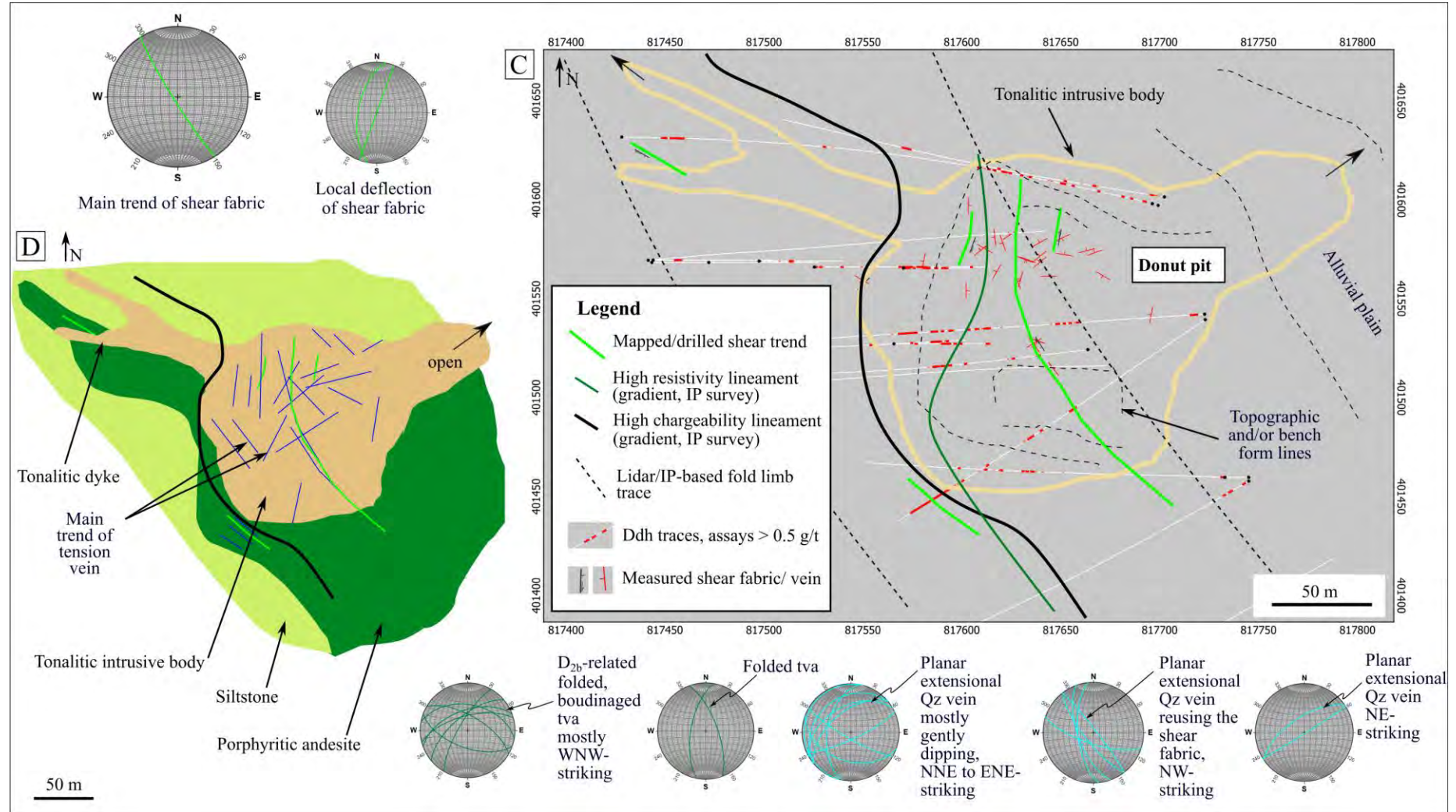
- Model for the Froyo-Ginger target
- Importance of folding





# Donut Drill Target

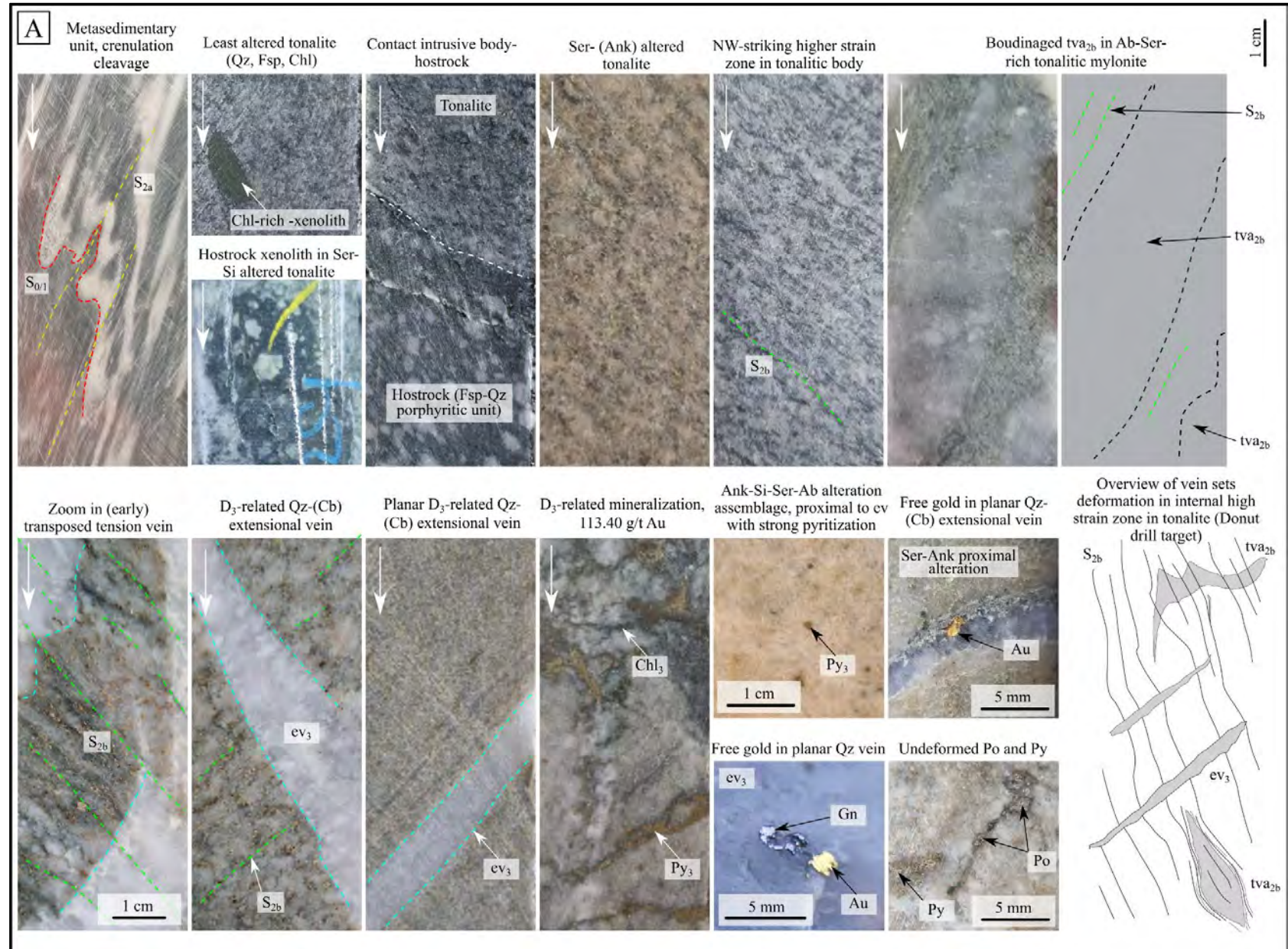
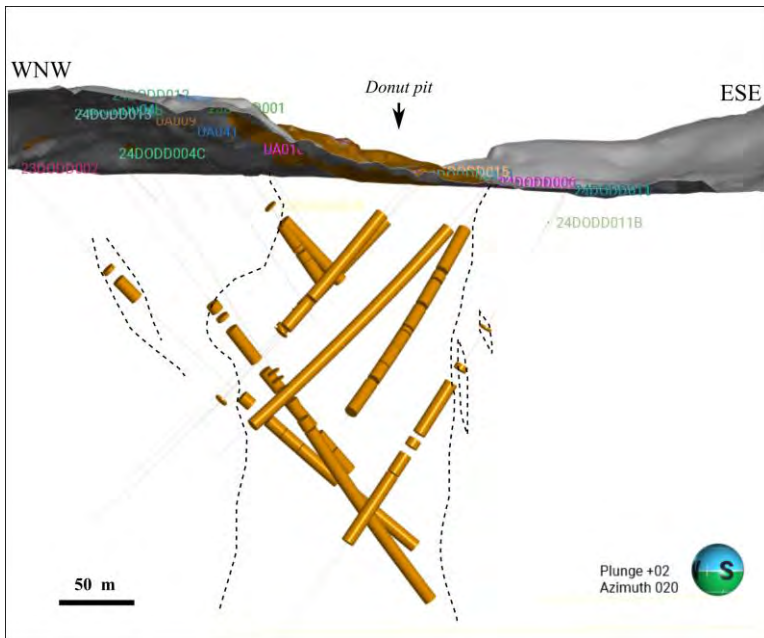
- Intrusion hosted, Au associated with internal shearing and brittle veining
- 19 m @ 14.23 g/t (24DO07) and 45 m @ 2.16 g/t (24DO06)  
D<sub>4</sub> deformation stage = NE trending





# Donut Drill Target

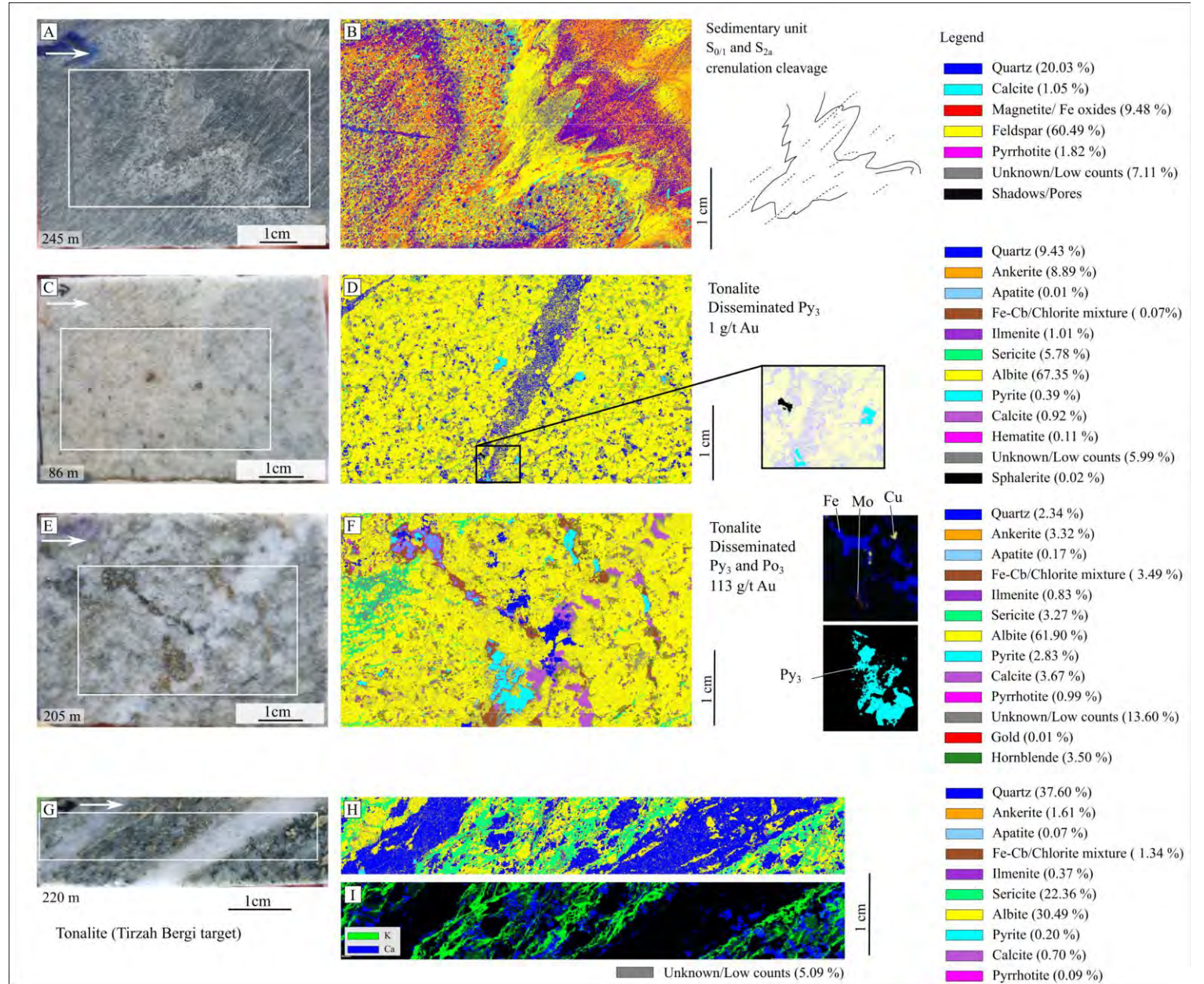
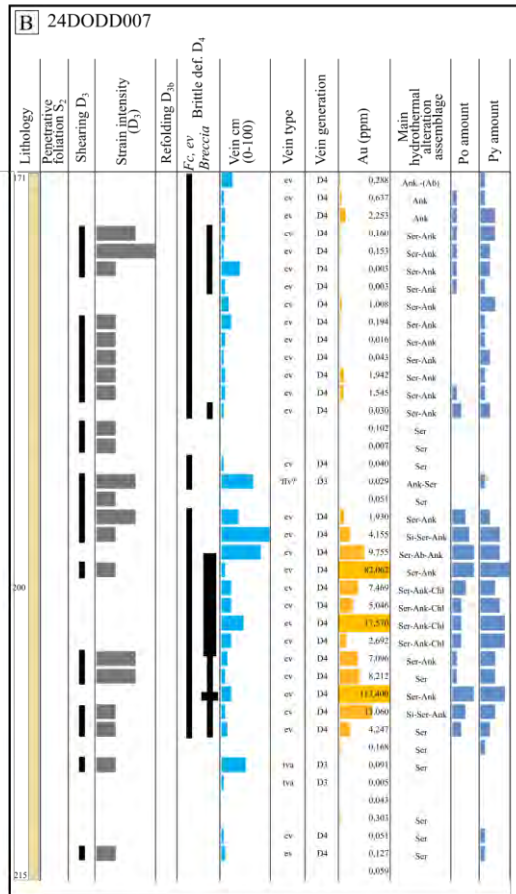
- Main Observations



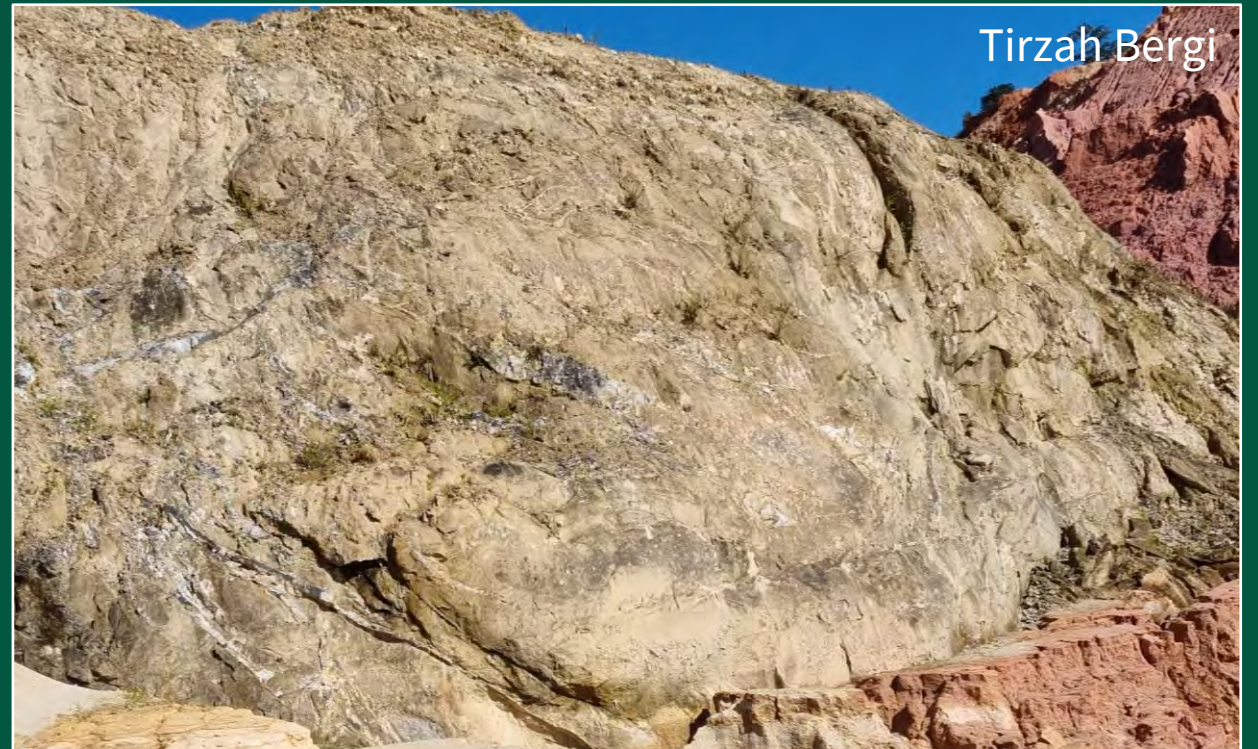


# Donut Drill Target

- $\mu$  xrf scan

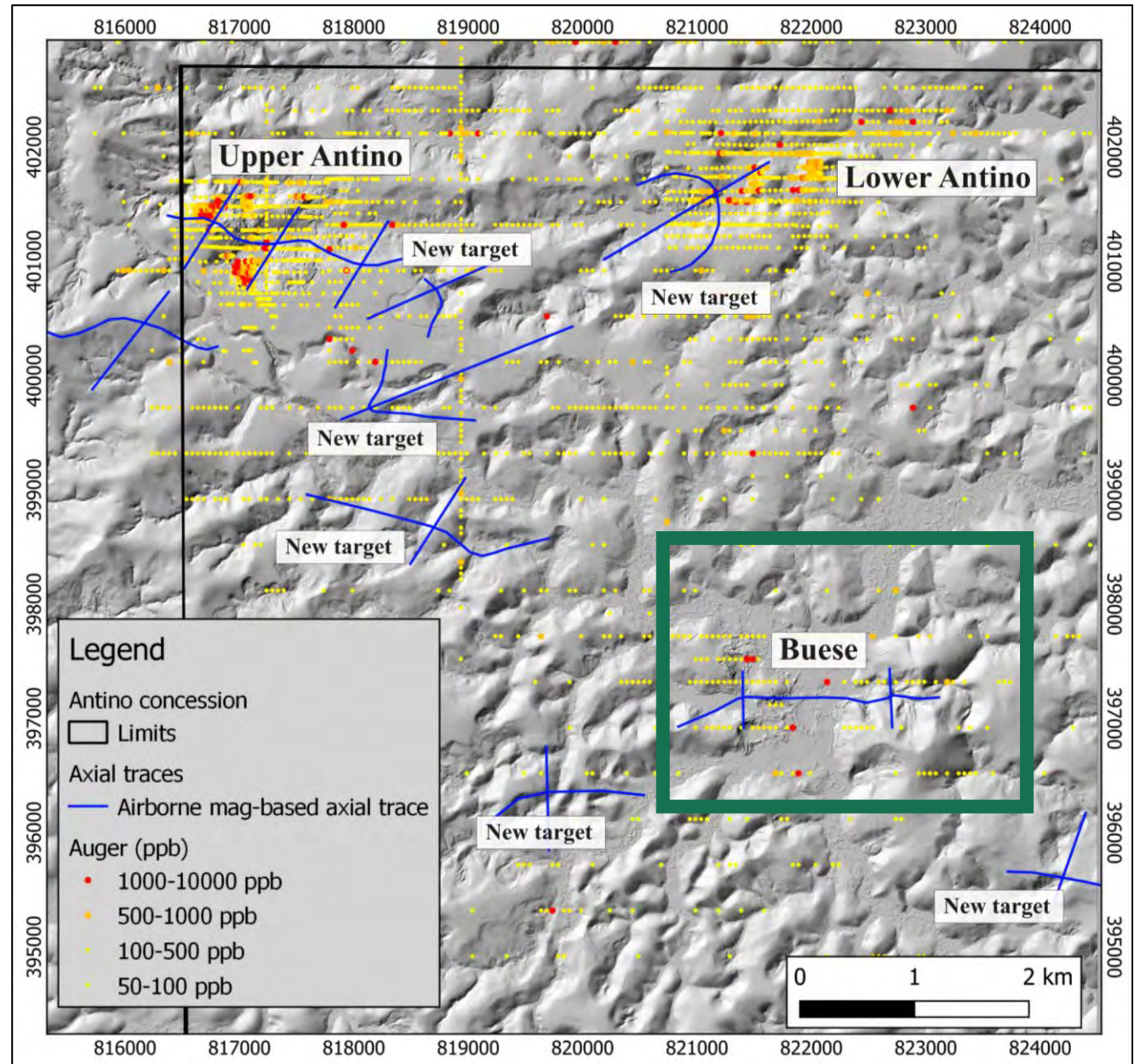
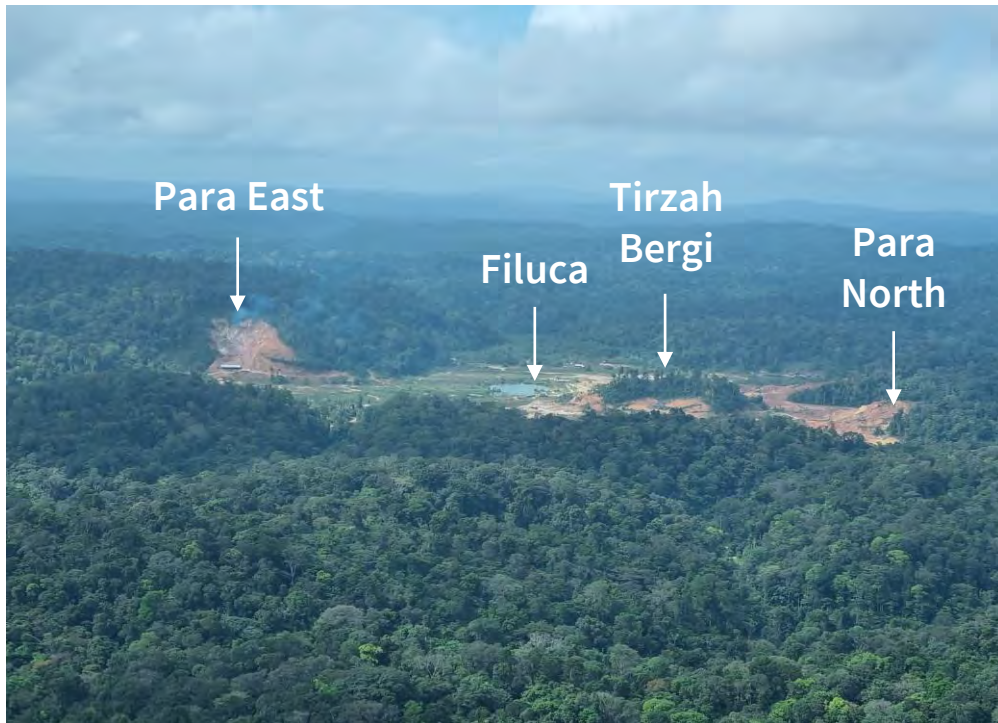


# Buese Exploration Target





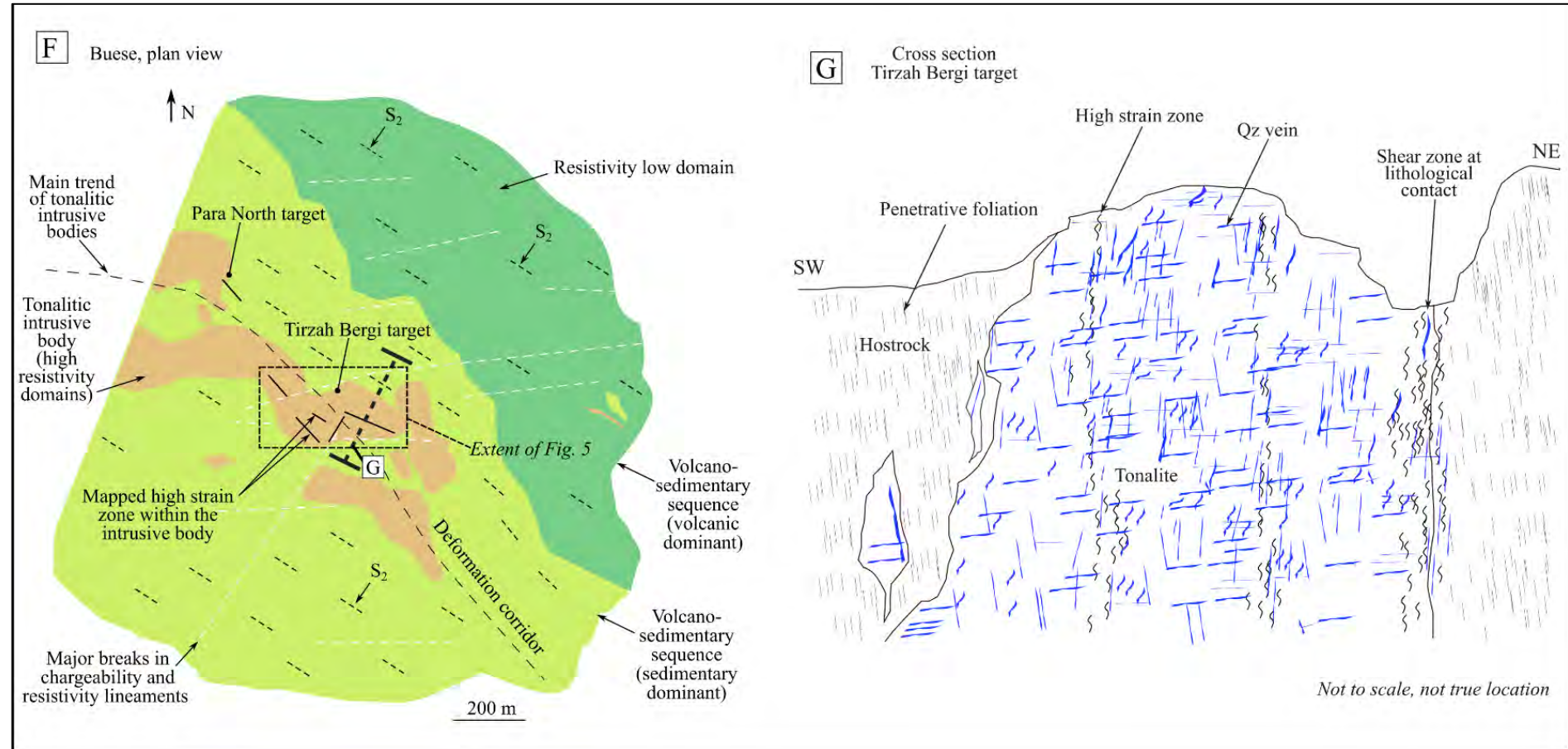
# Buese Target





# Buese Target Overview

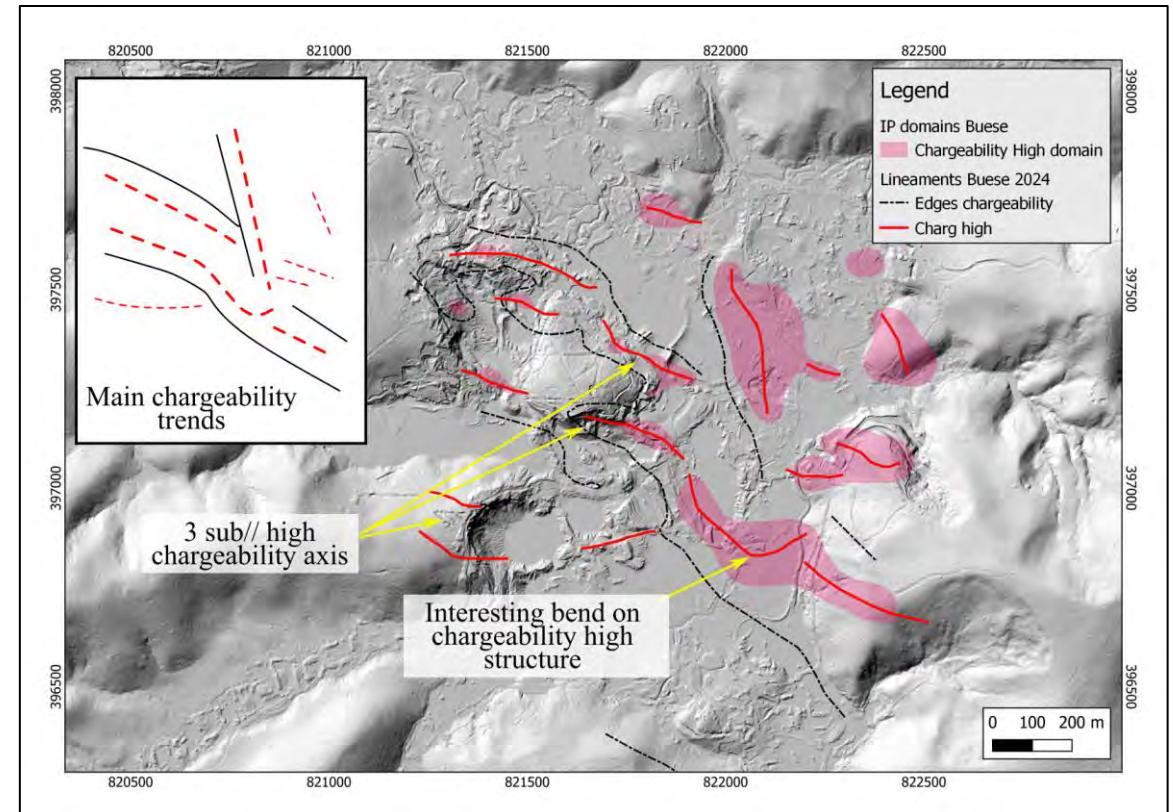
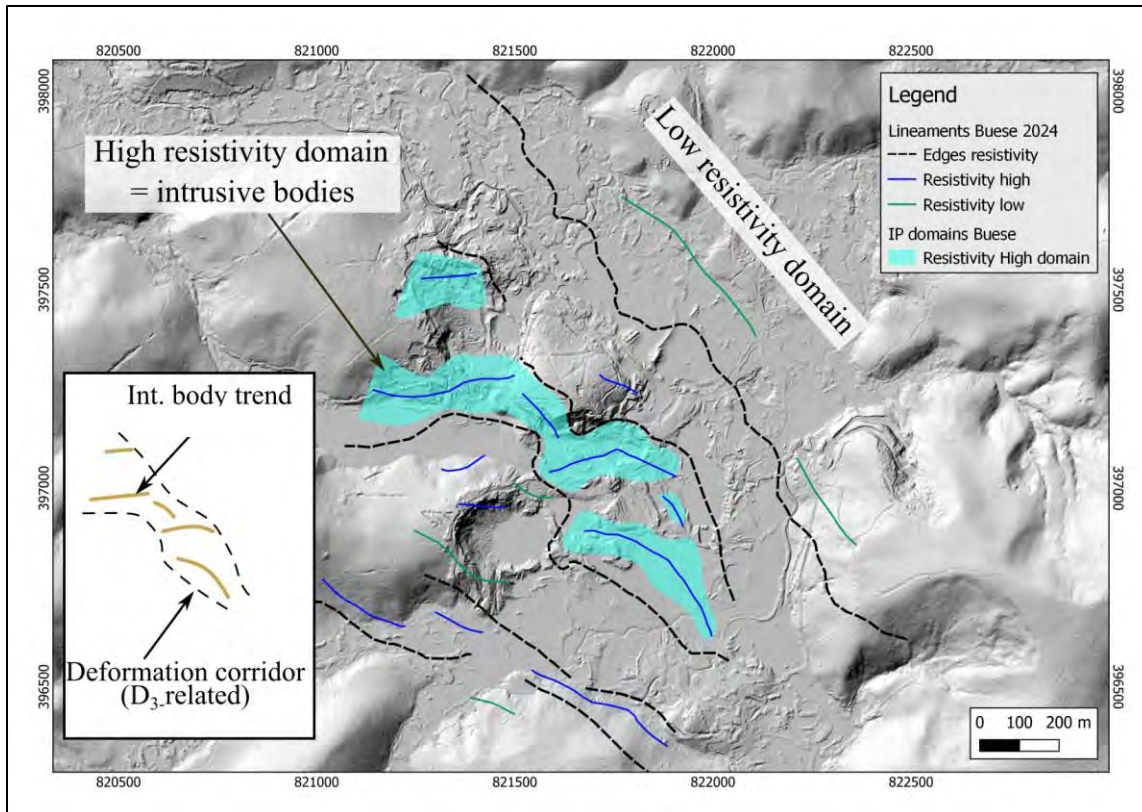
- Spatial distribution of intrusive bodies (based on mapping, historical drilling and IP survey)
- High resistivity domain = tonalitic bodies





# Buese Target Overview

- NW trend with E-W bends

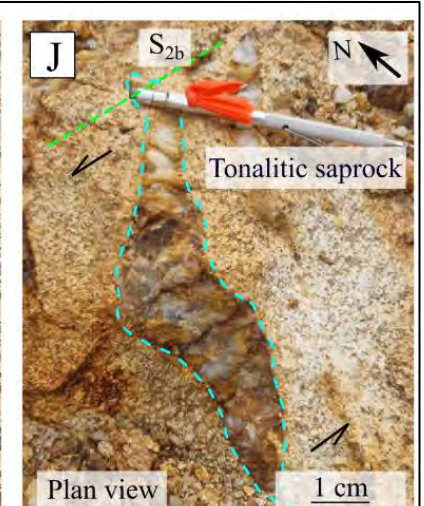
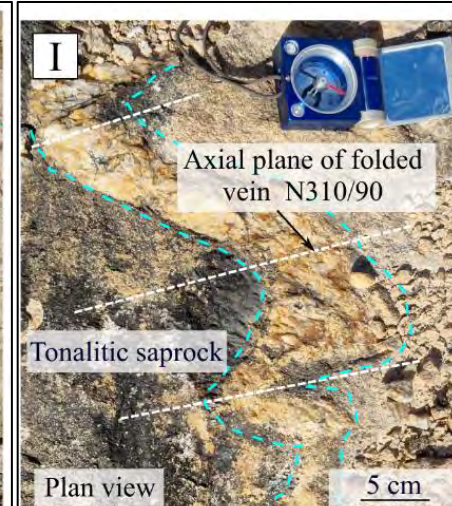
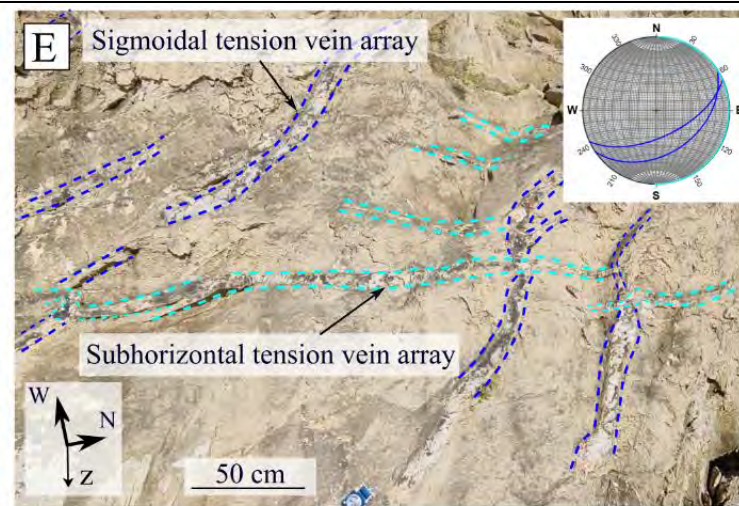
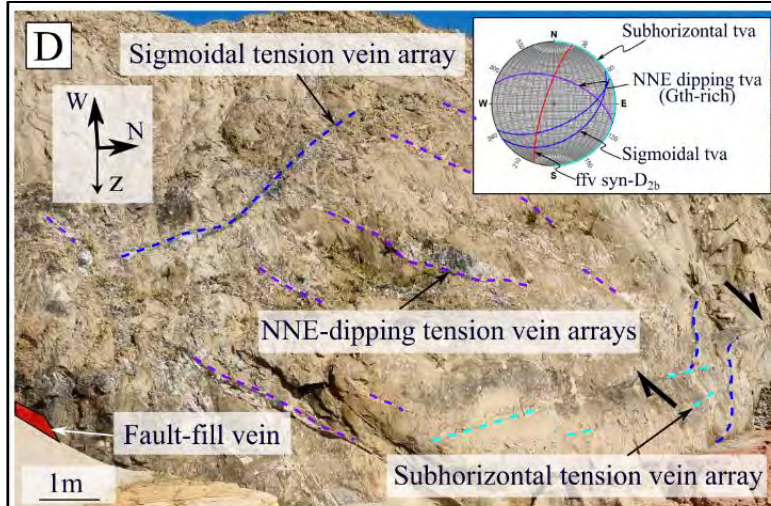
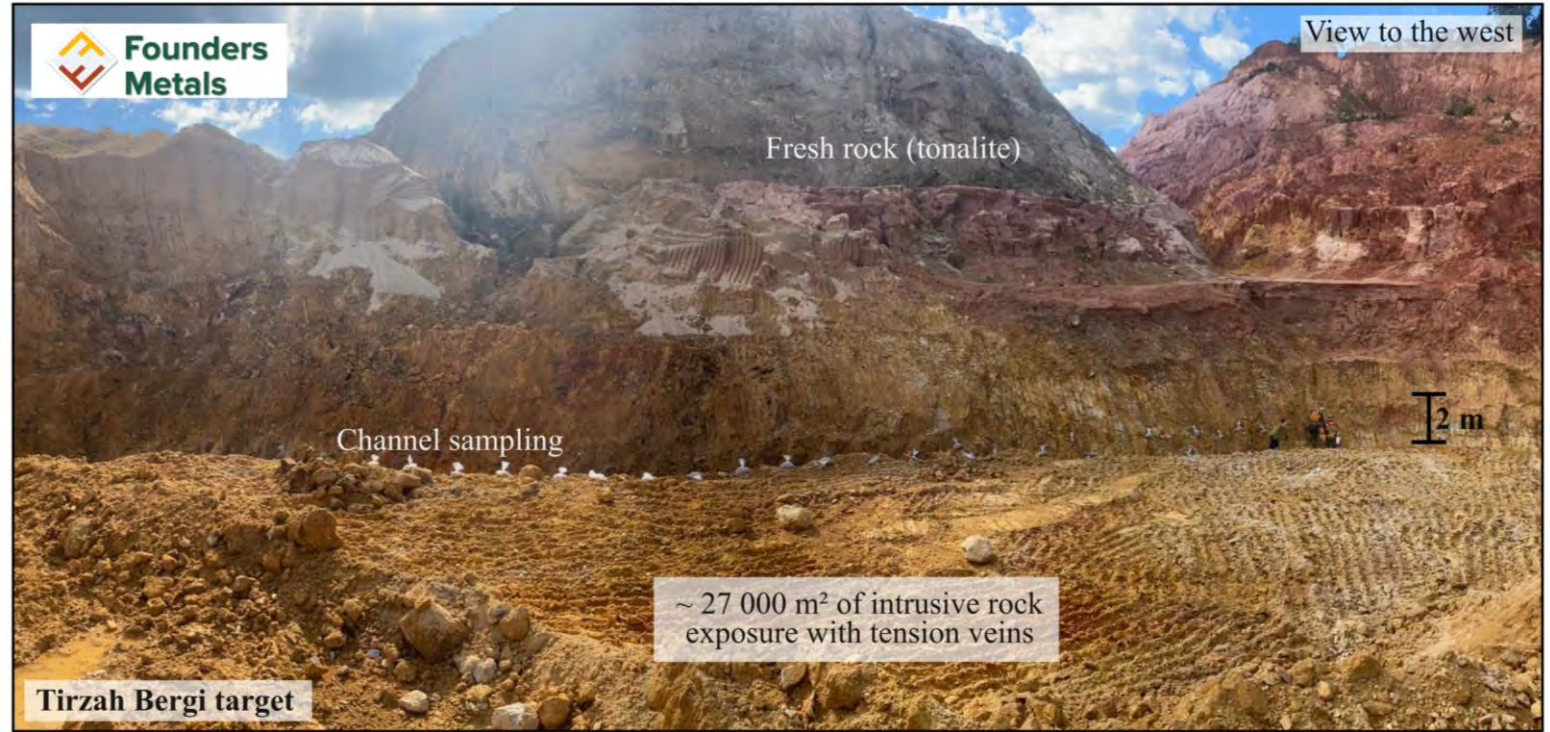






# Tirzah Bergi Pit Mapping

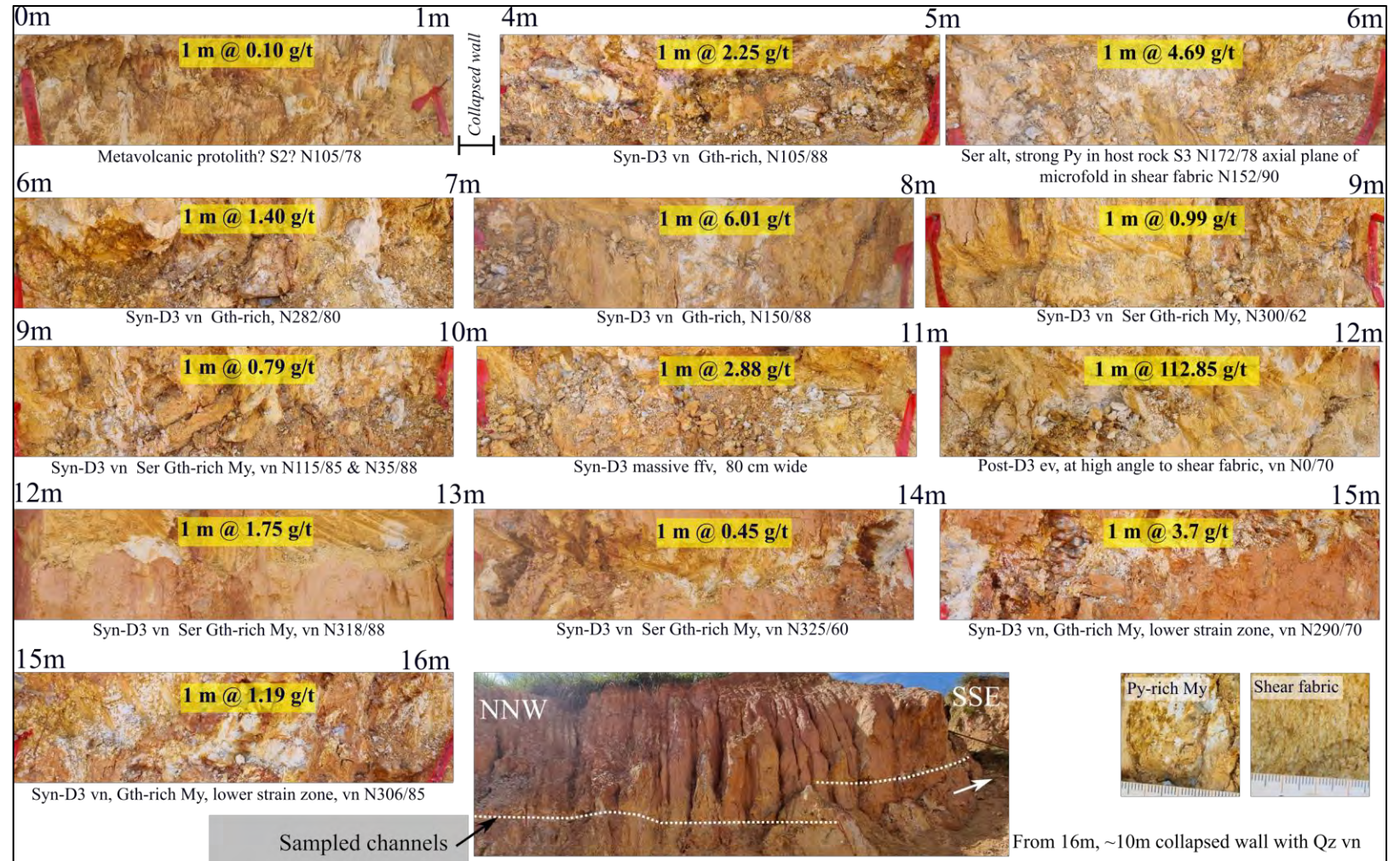
- Large tonalitic body
- 4 sets of Qz vein are identified
- Multiple zones with a strong pyritization





# Channel Sampling Tirzah Bergi

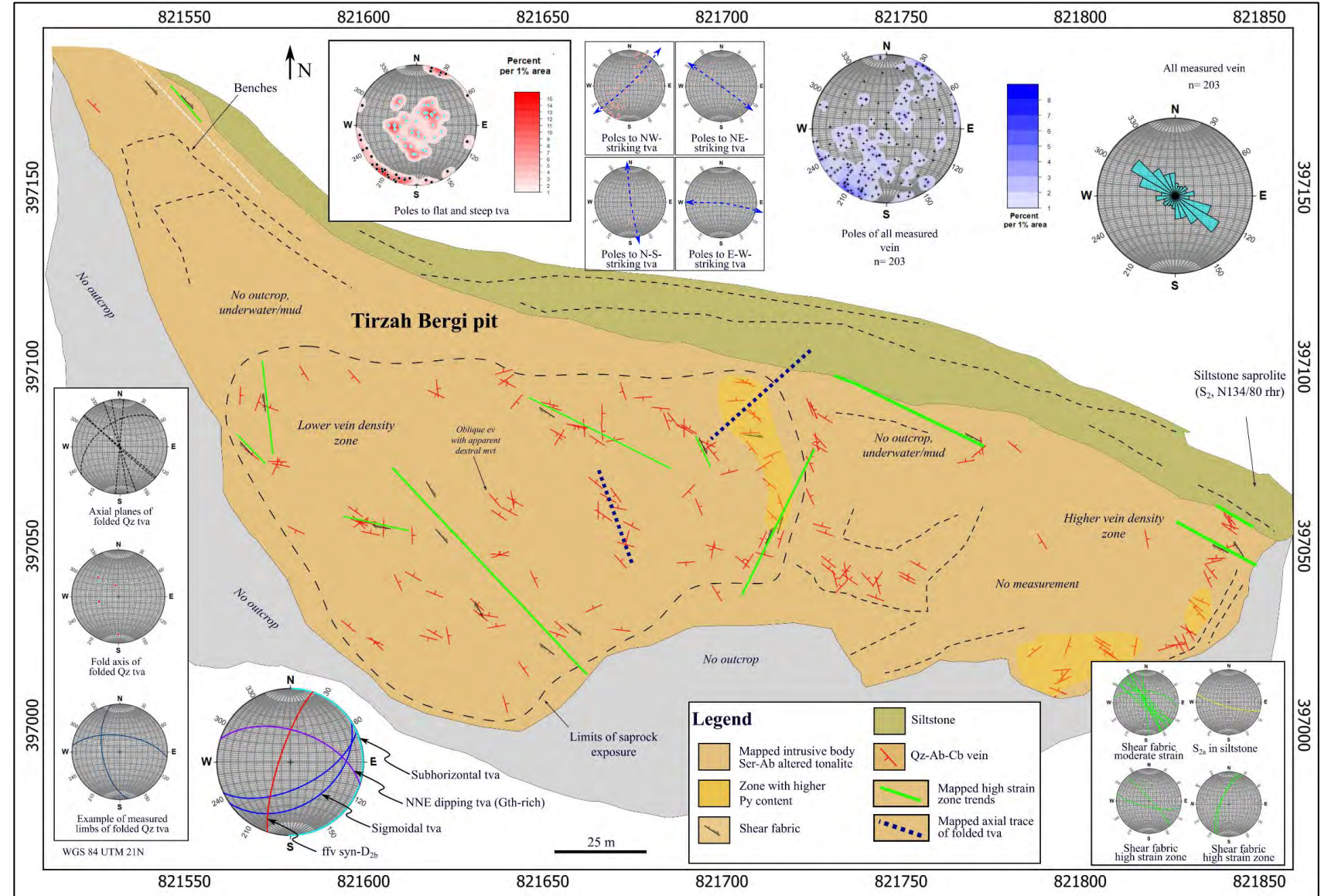
- The main shear zone located at the East of the pit was sampled
- 1m intervals
- 26m wide shear zone
- **Although Buese is mainly intrusion-hosted, the shear zone-hosted mineralization itself seems volumetrically more important than at Upper Antino**





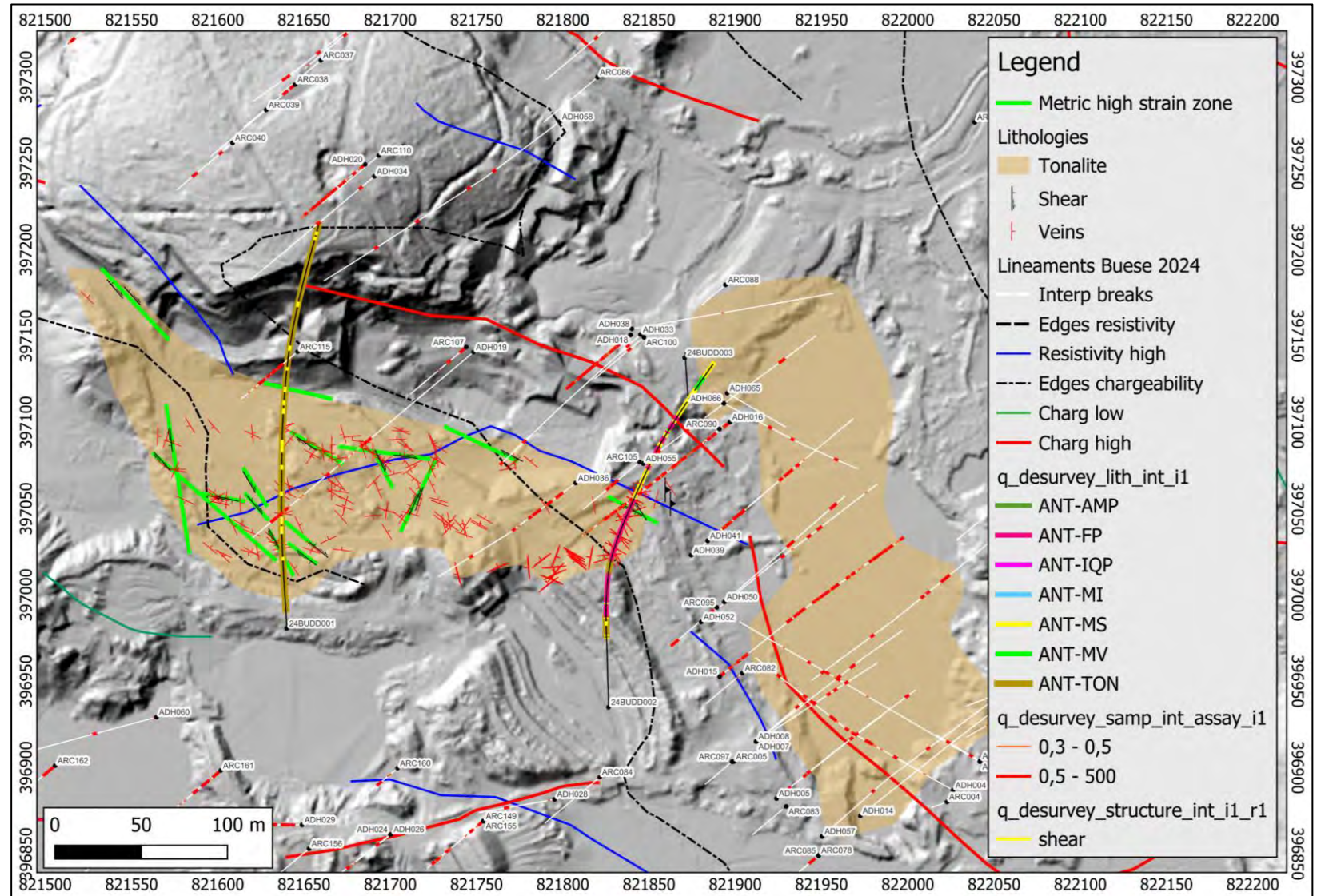
# Tirzah Bergi Pit Mapping

- Large tonalitic body
- 4 sets of Qz vein are identified
- Multiple zones with a strong pyritization



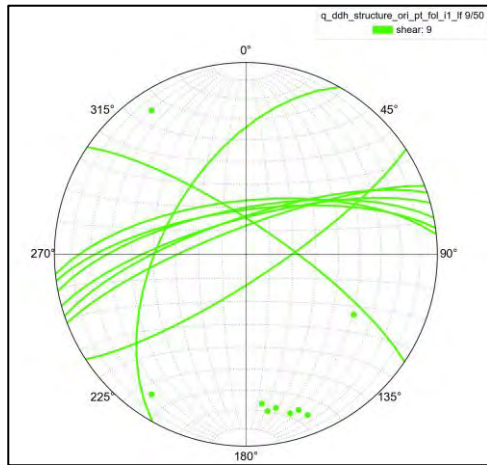


# Tirzah Bergi Drilling

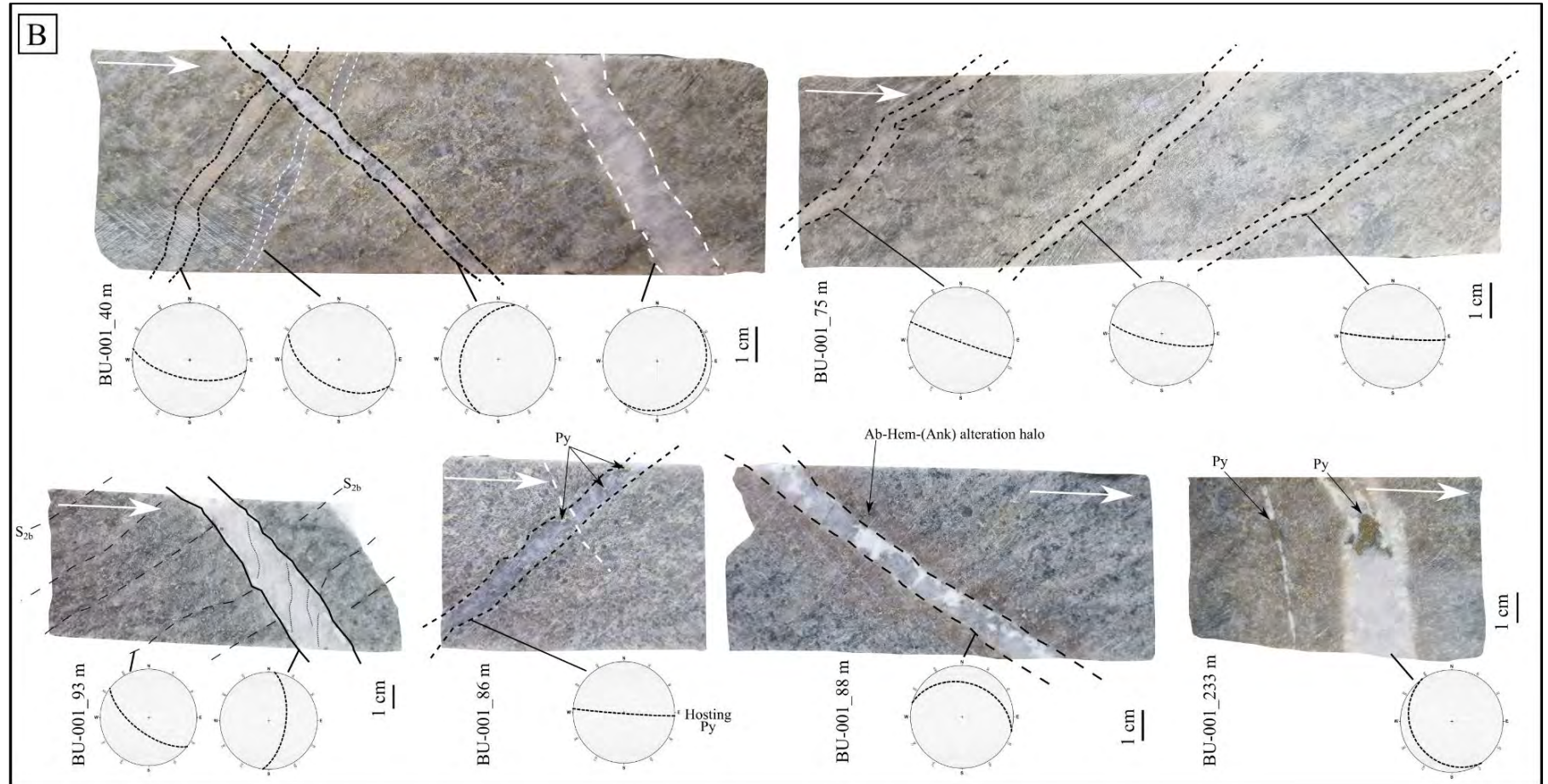




# Tirzah Bergi Drilling

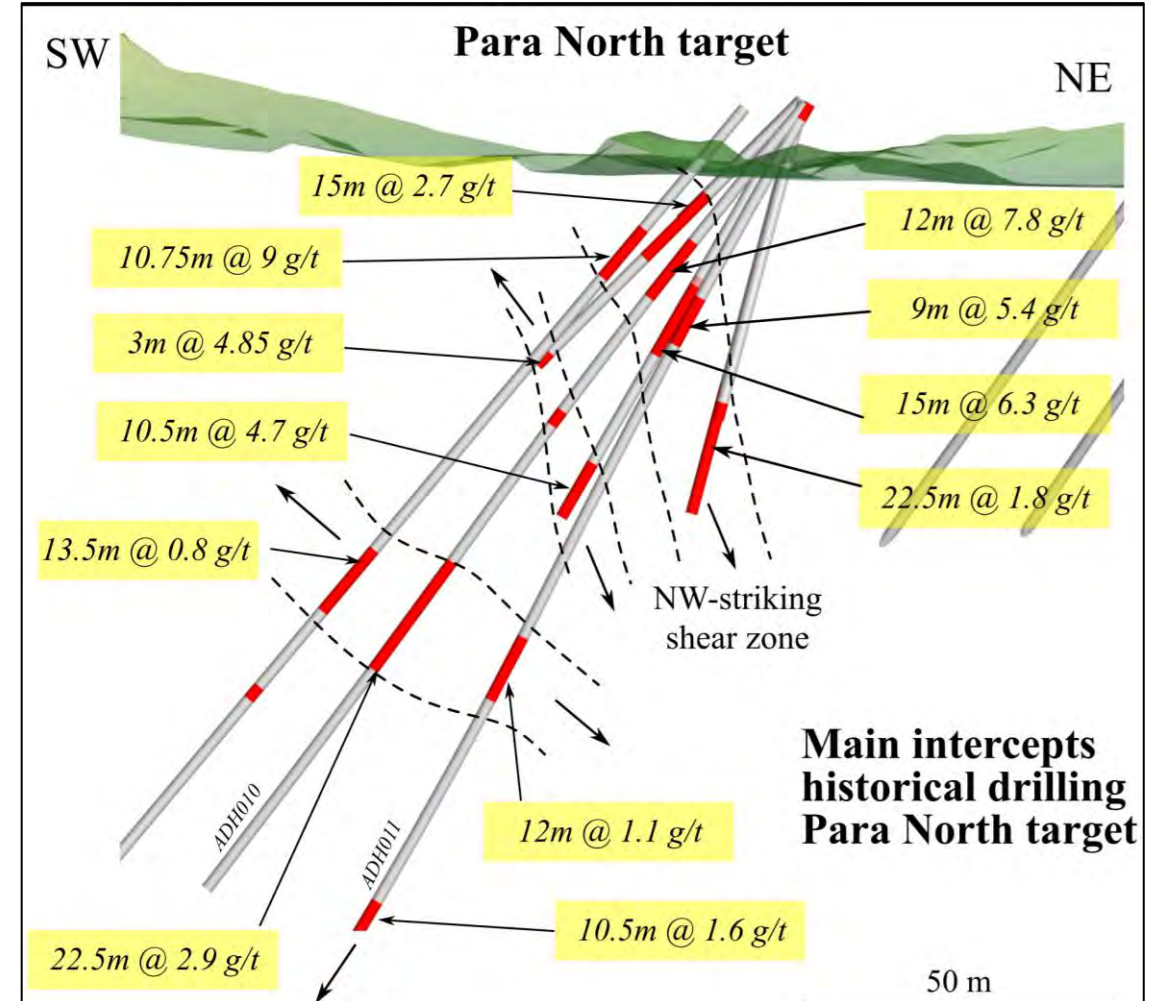


**Internal metric Ser-rich high strain zone**





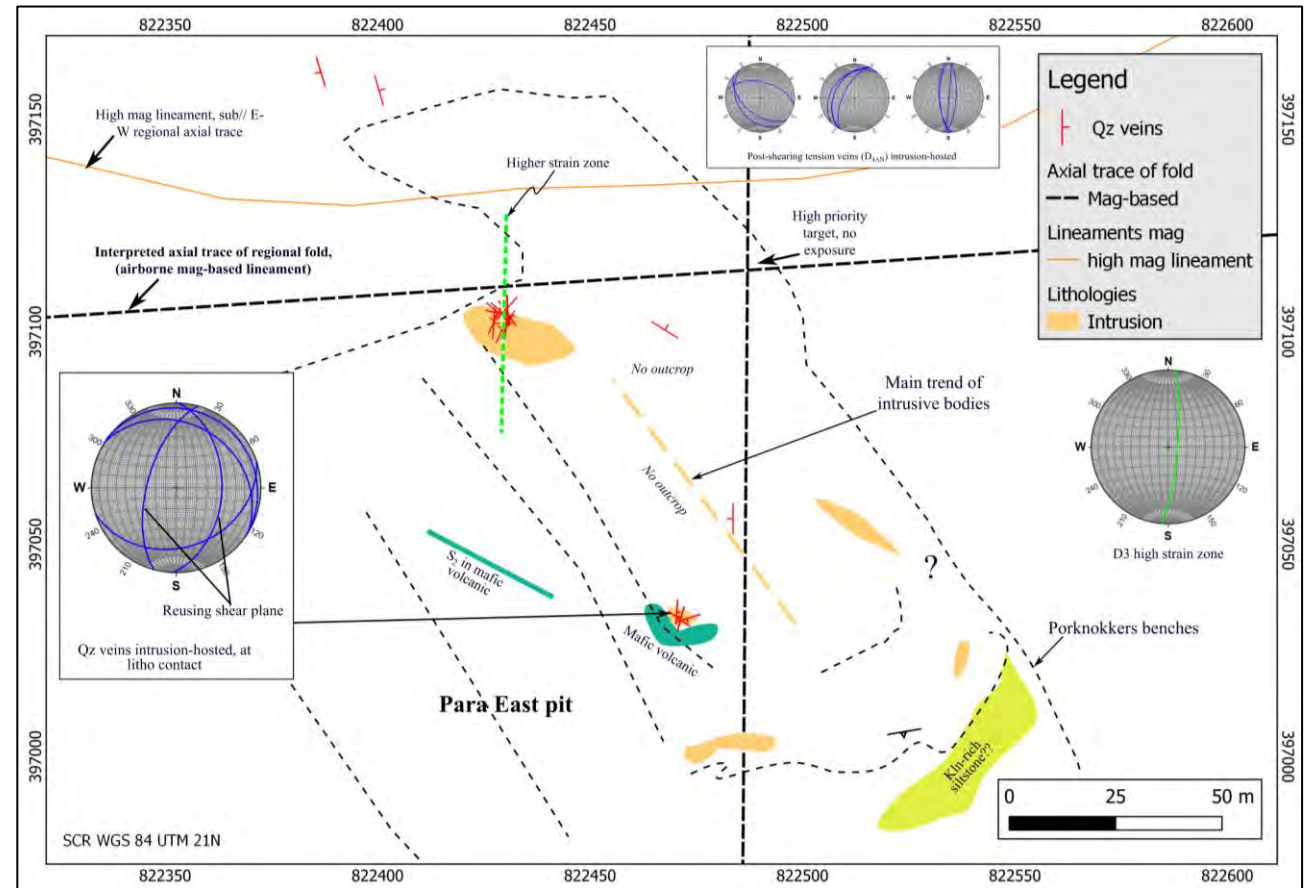
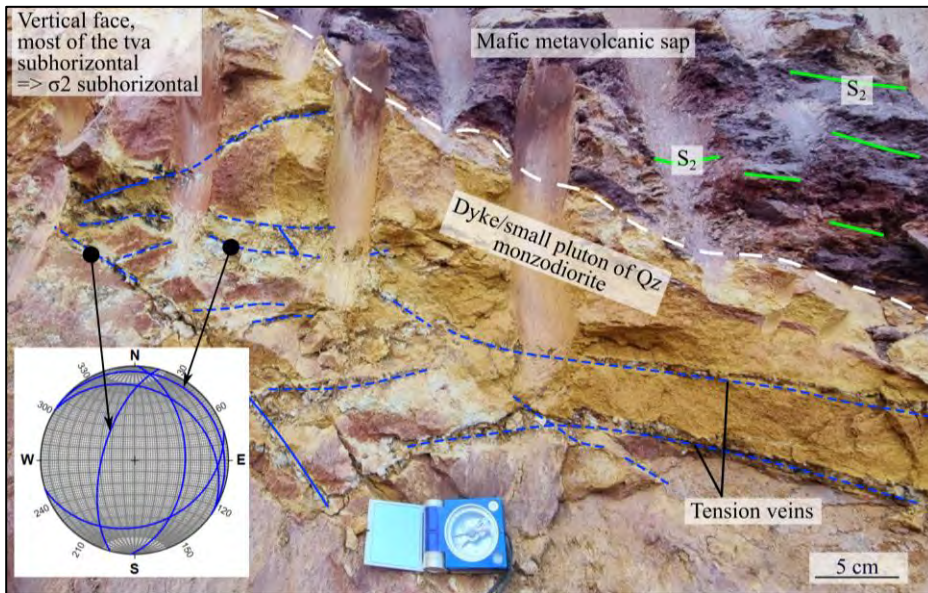
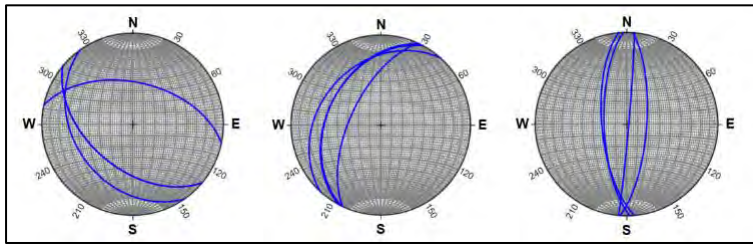
# Para North Target





# Para East Drilling

- The intrusions are observed as small dykes and lenses
- High strain zone dipping to East
- Gold bearing vein striking N130/50, N200-220 and N-S



# Summary UA & Buese



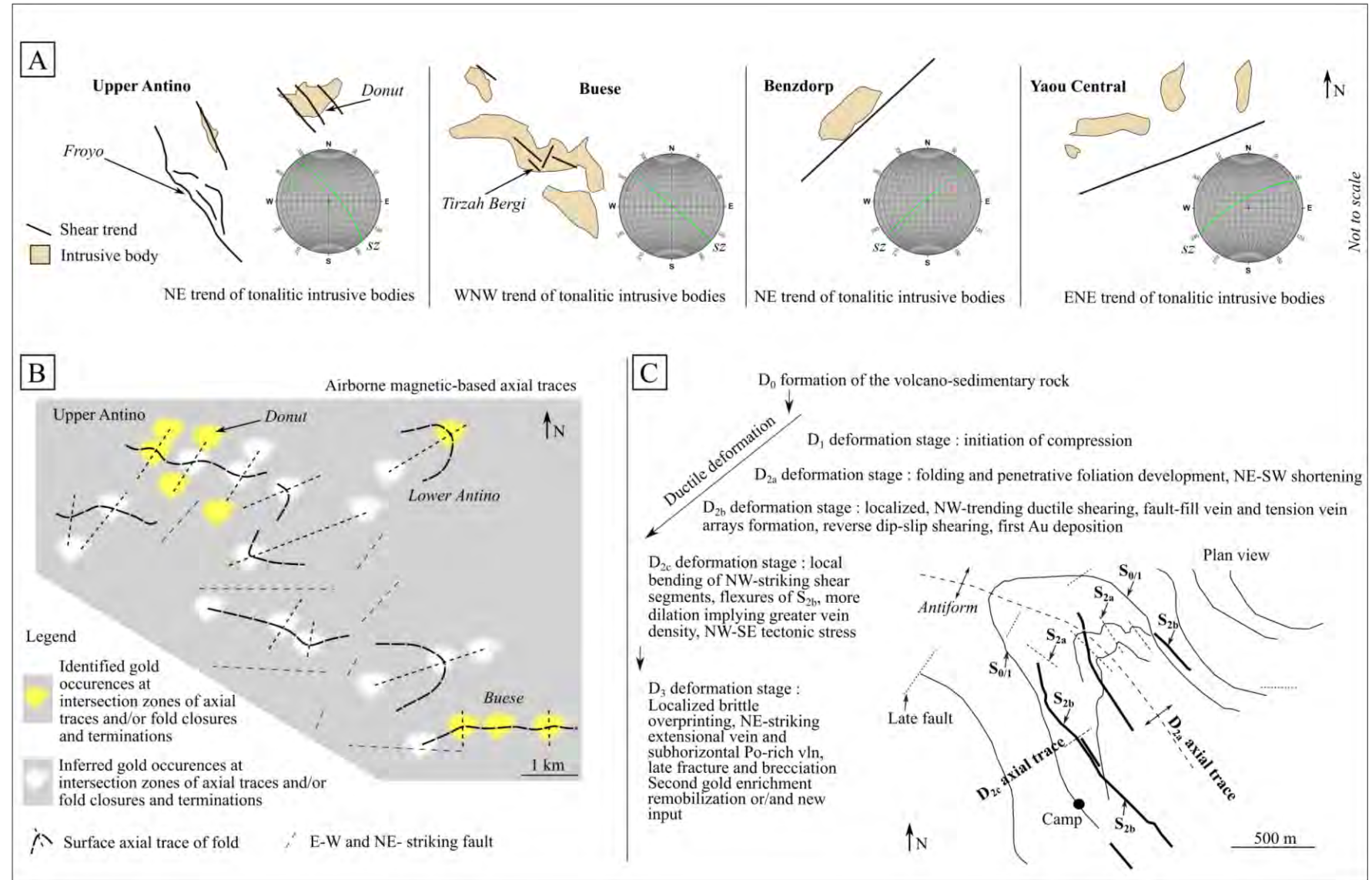
Founders  
Metals





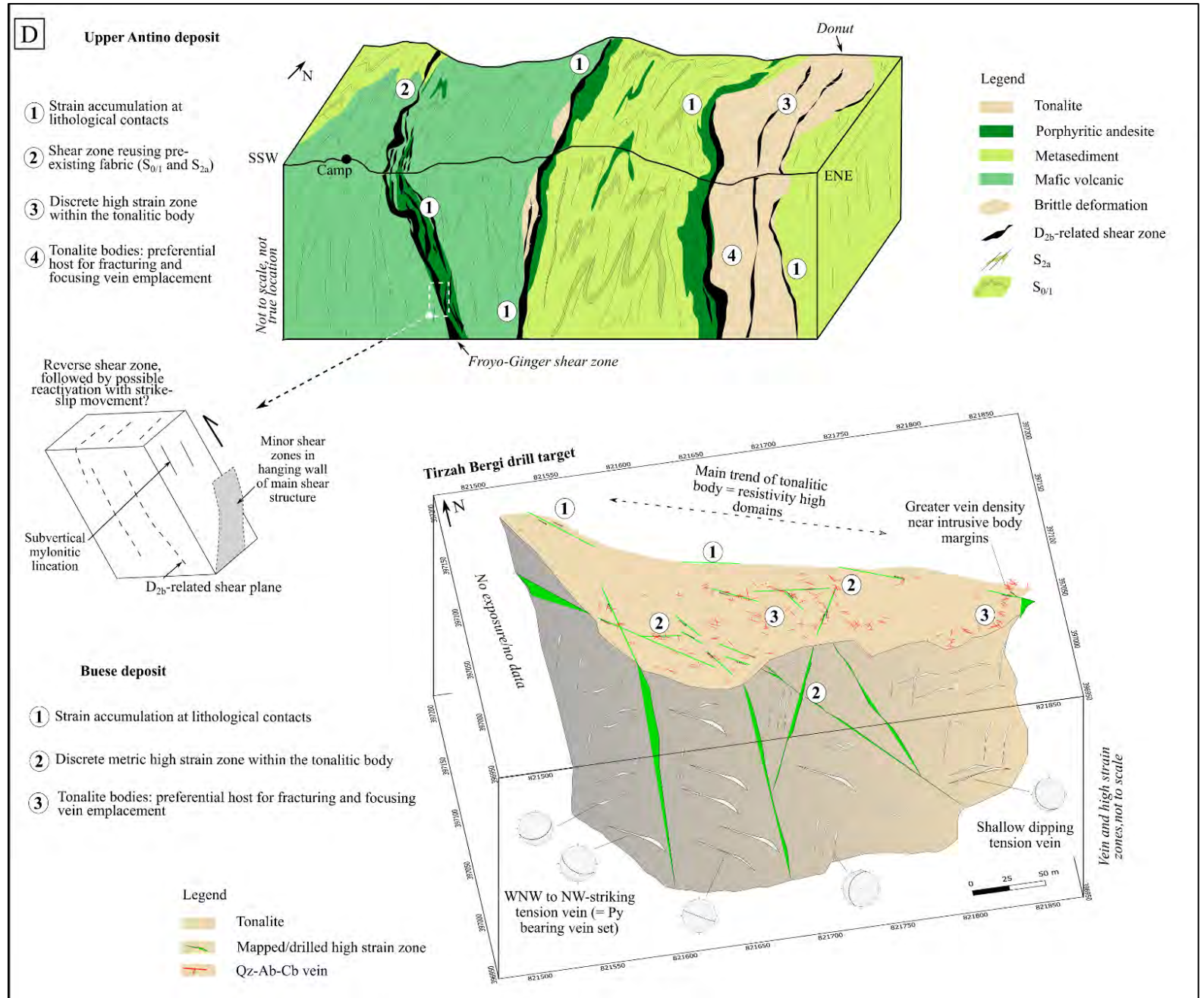


# Structural controls from District to mineral scale



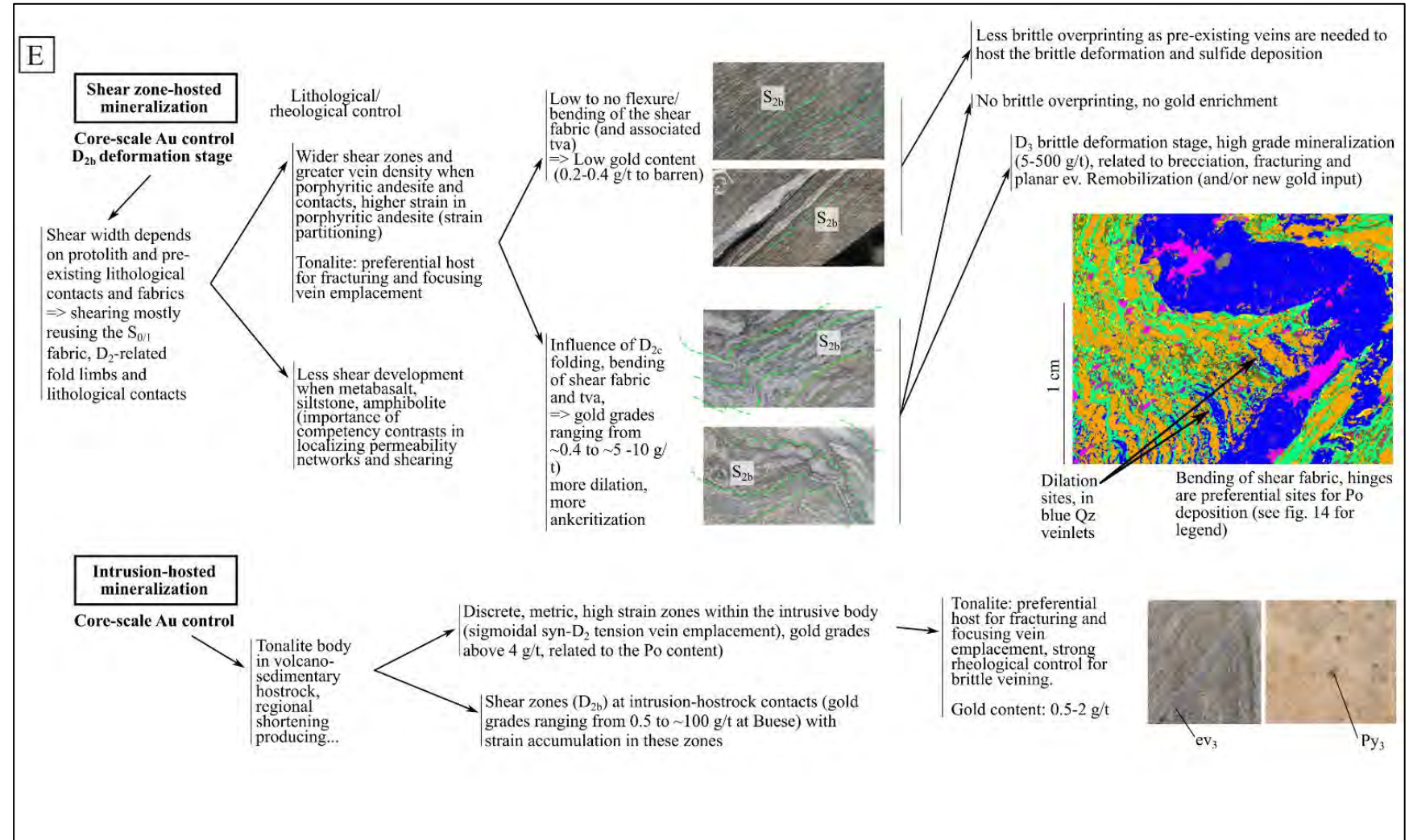


# Structural controls from District to mineral scale





# Structural controls from District to mineral scale



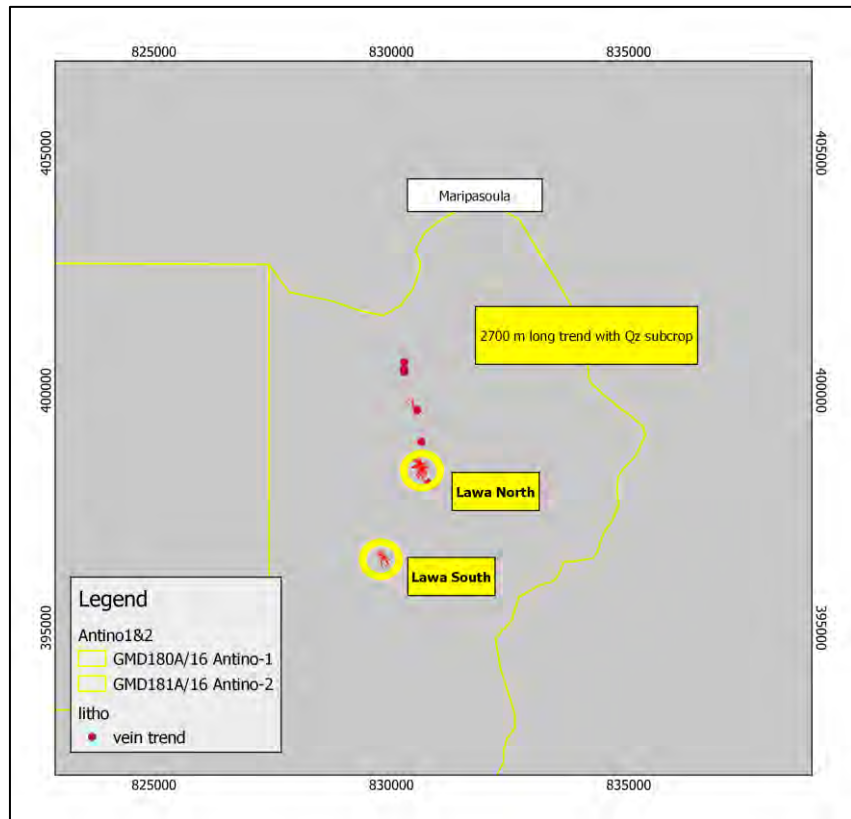
# Lawa Targets (Eastern part of the Antino Concession)



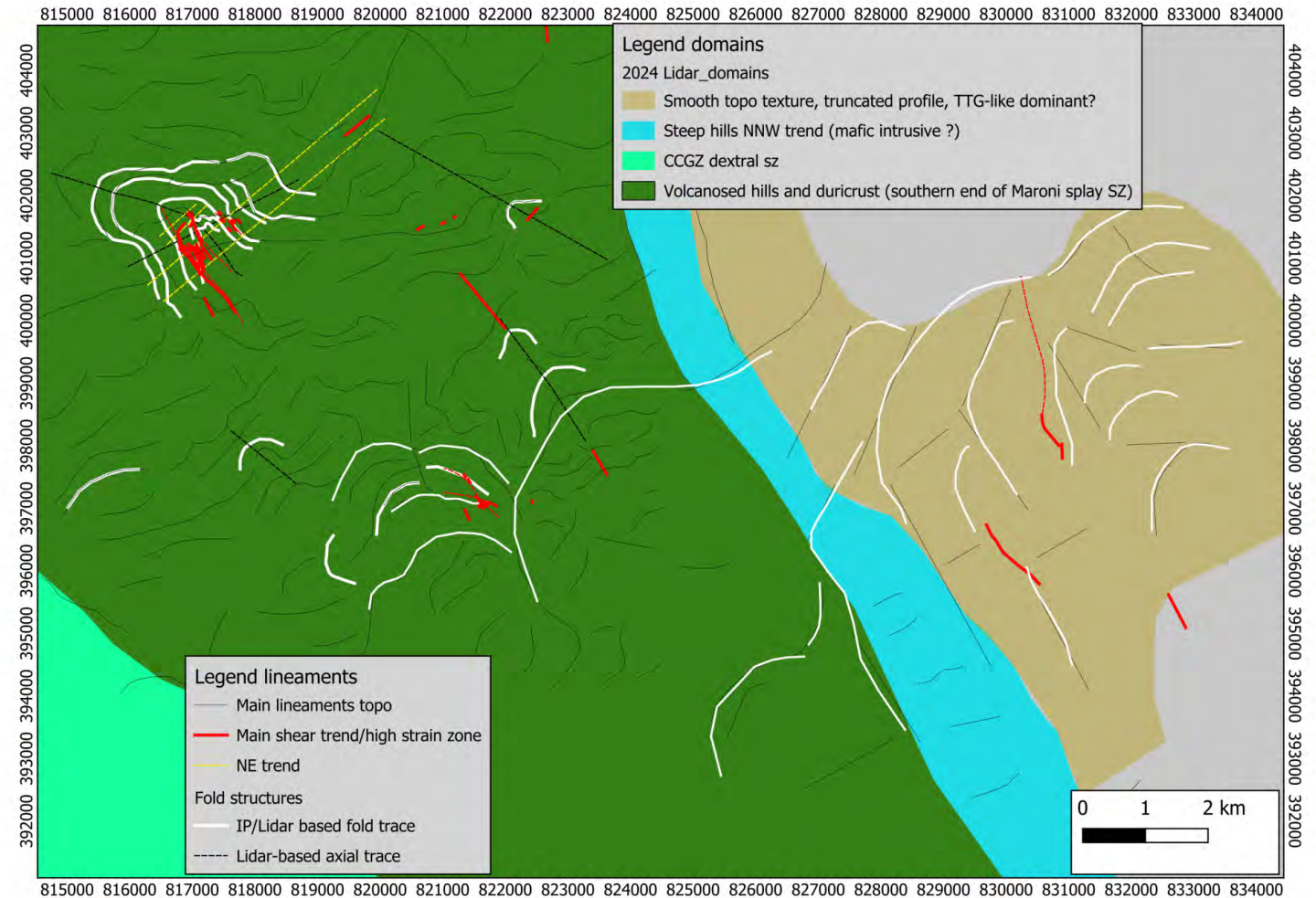


# Lawa Target

- Mapping and sampling at Lawa allowed to identify a 2.7 km long trend with Qz vein subcrops preferentially hosted by a tonalite
- Two main pits referred as Lawa North and Lawa South are mapped



In red the mapped Qz veins



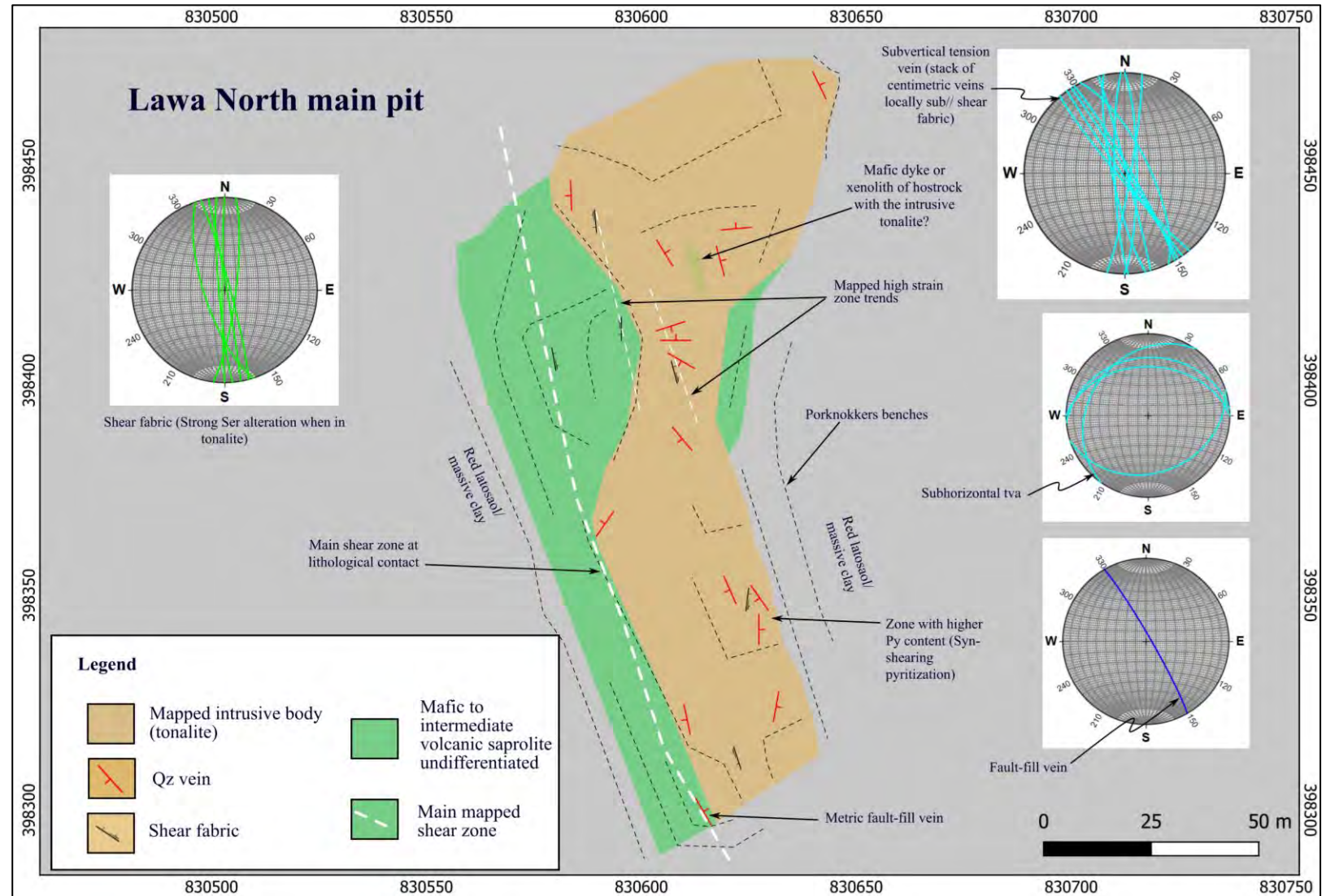


# Lawa Target: Lawa North Pit

- Located at contact between a tonalite and a mafic volcanic hostrock
- Main shear with ffv at contact
- N150/85 shear
- Locally strong pyritization



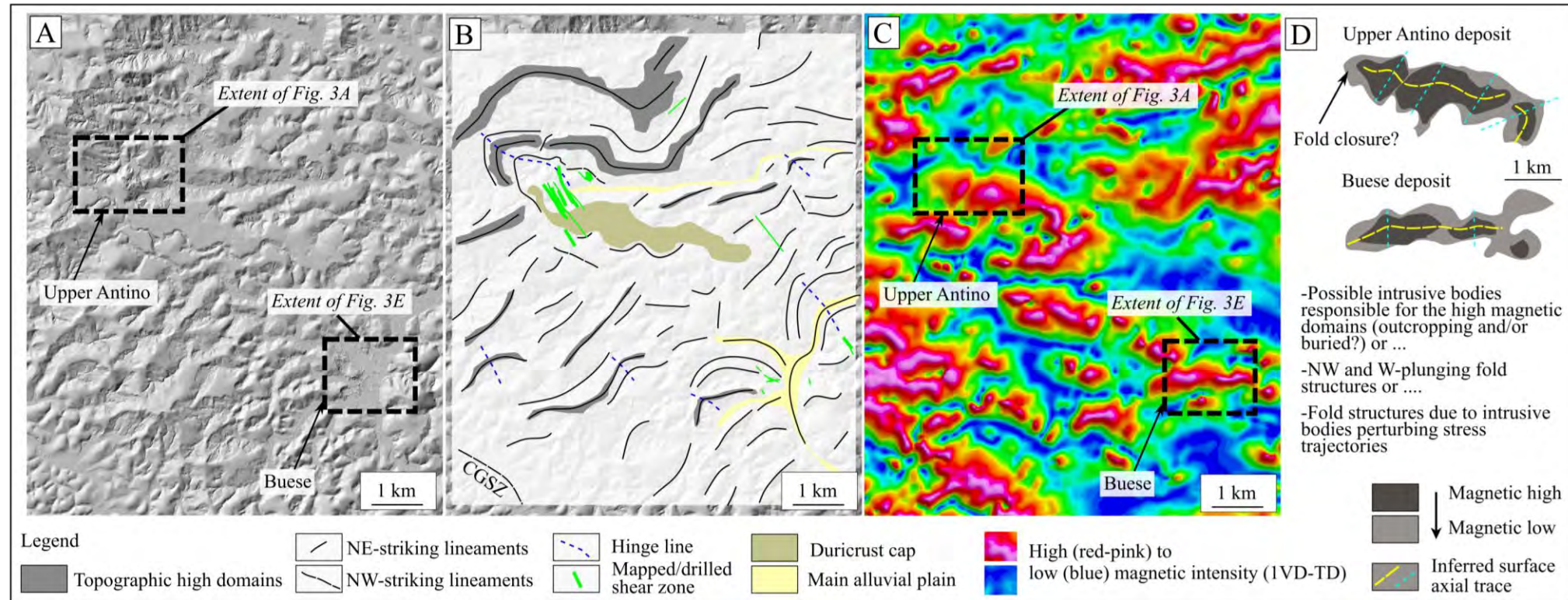
View to the SE





# Multiple Targets

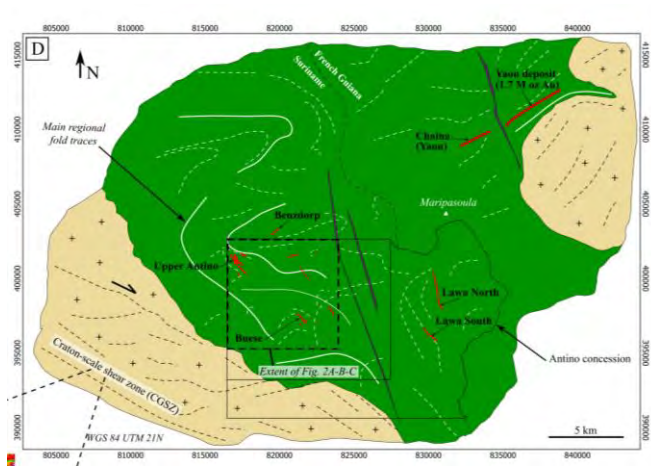
- Magnetic domain are redrawn to highlight the fold pattern
- Fold interference
- NW striking steeply dipping sz occur along the axial trace and limb of fold  $D_x$  with gold enrichment in hinges of  $D_{x+1}$  folds
- Or Buried intrusion responsible for the high magnetic domain with strain accumulation at edges





# Analogies with the Yaou deposit

- 1.5 M ounces average grade 2.1 g/t
- Shared settings with Buese and Donut pit:
- mostly intrusion-hosted mineralization, strong rheological control, tension veins in intrusive bodies, mainly subhorizontal, Py-rich and Mag-depleted with proximal Ab-Ank alteration halo



**But: Higher grades at Antino  
Po not observed at Yaou**

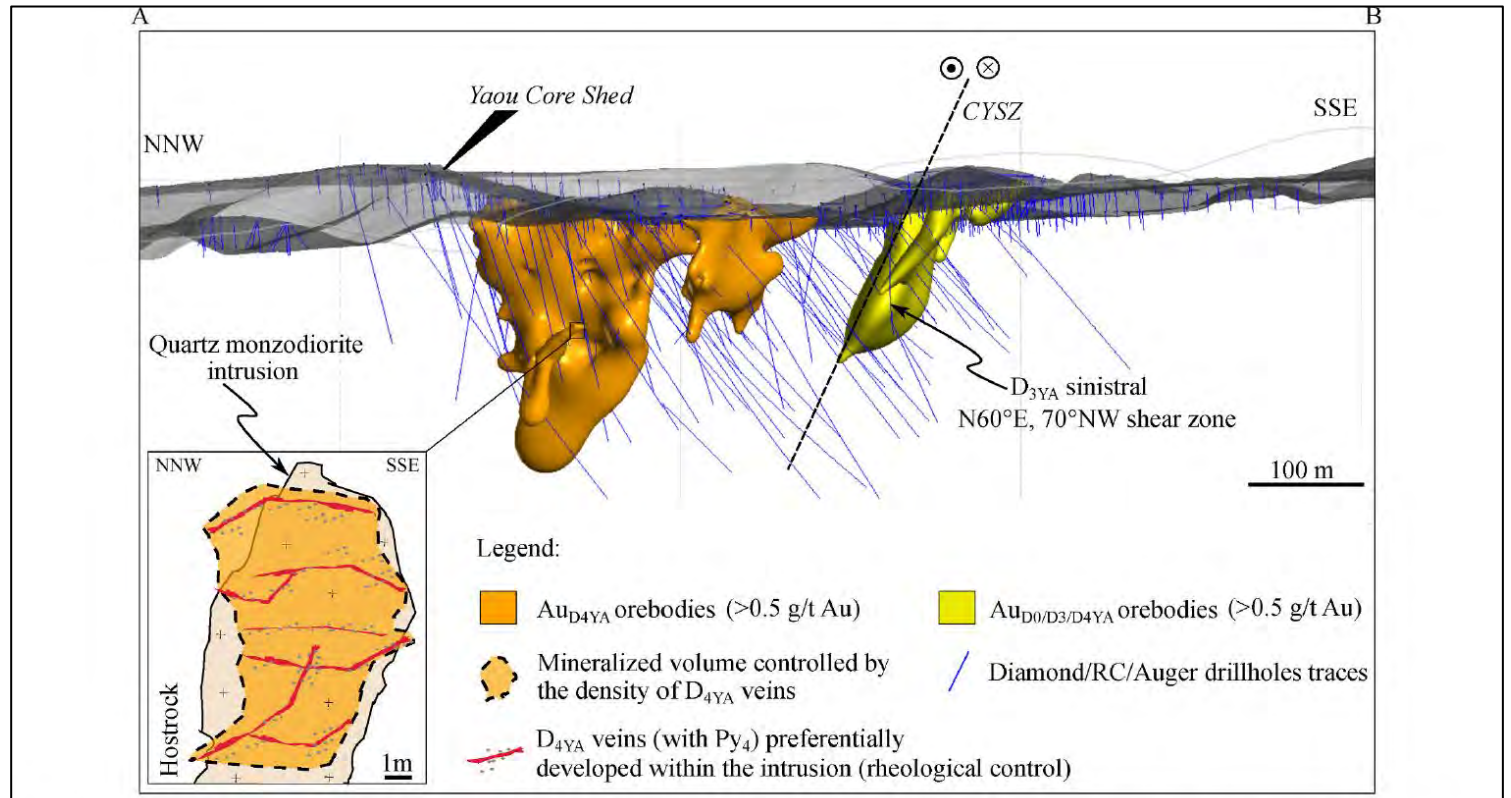


Fig. 5. Leapfrog Geo scene of the model with orebodies geometry at the camp-scale (central part of the deposit). Orebodies associated with D<sub>4YA</sub> correspond to intrusive bodies envelopes. See Fig. 4 for location.





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