

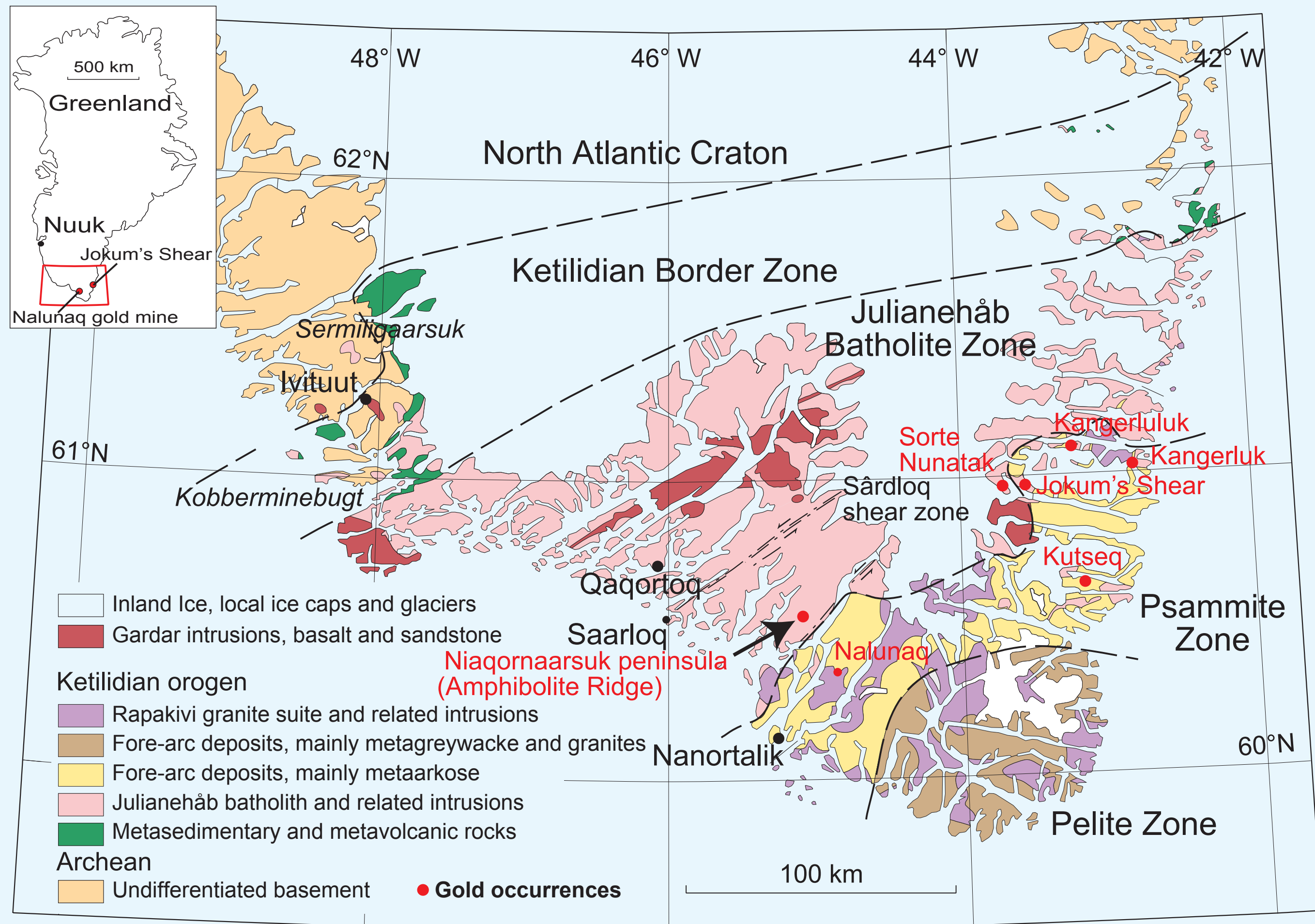
The gold potential of South East Greenland: new insights of the eastern extension of the > 150 km Nanortalik gold belt

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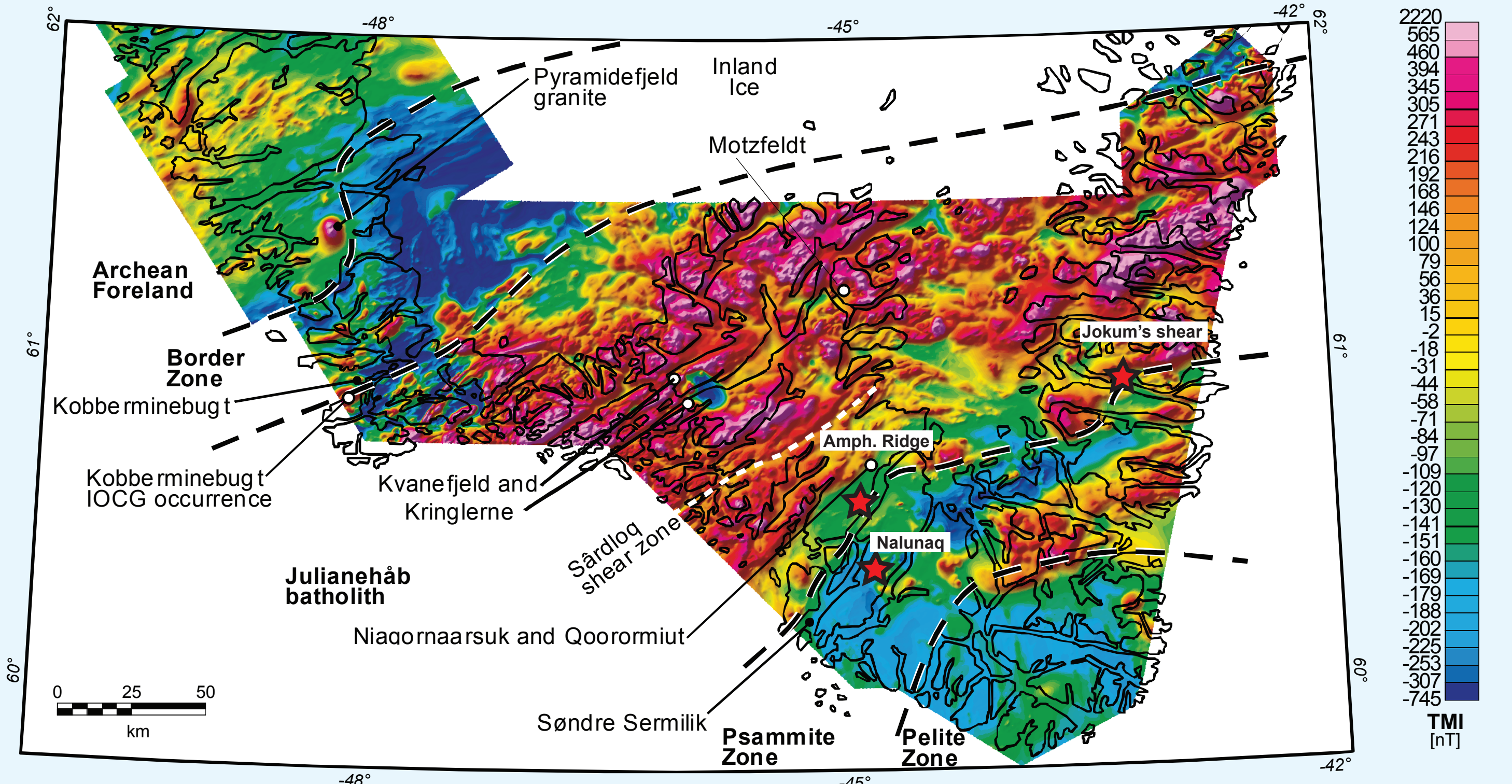
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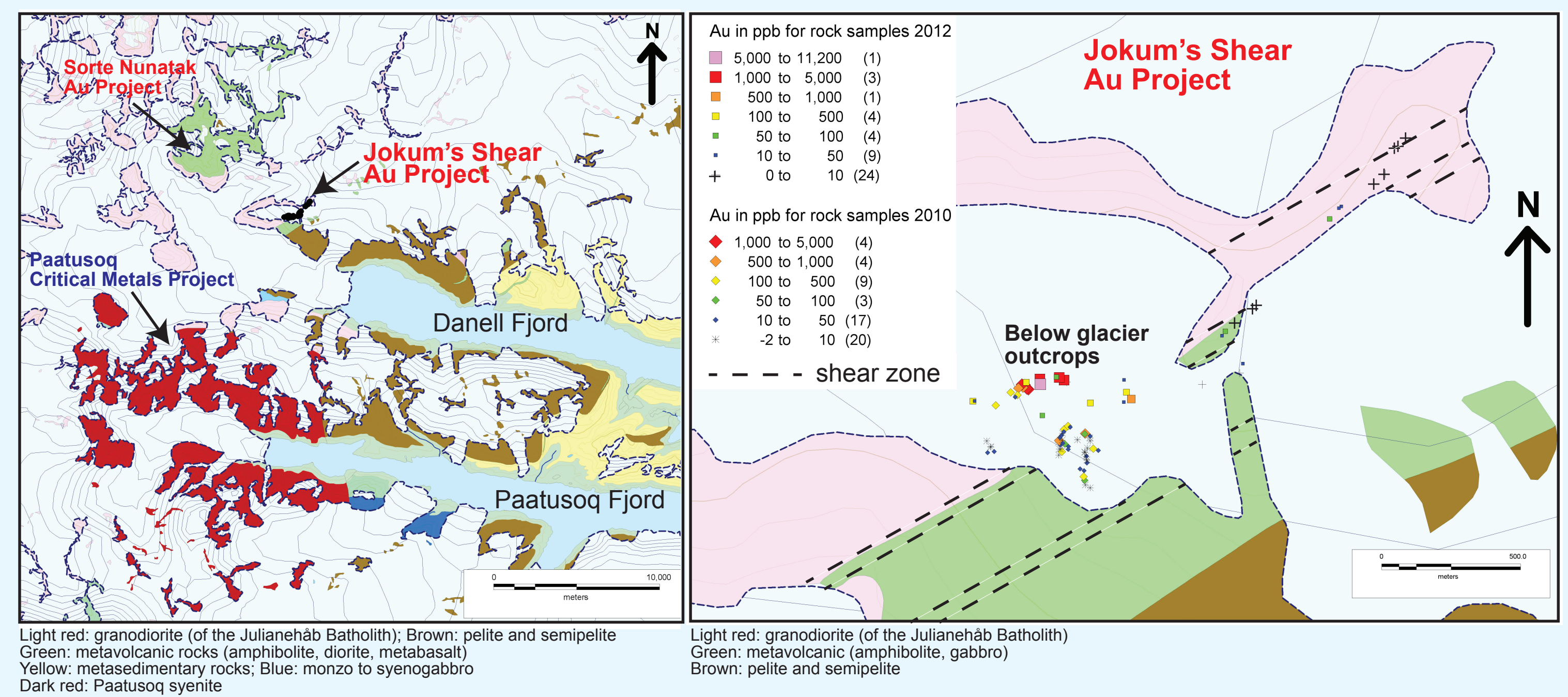
1. Geology of South Greenland



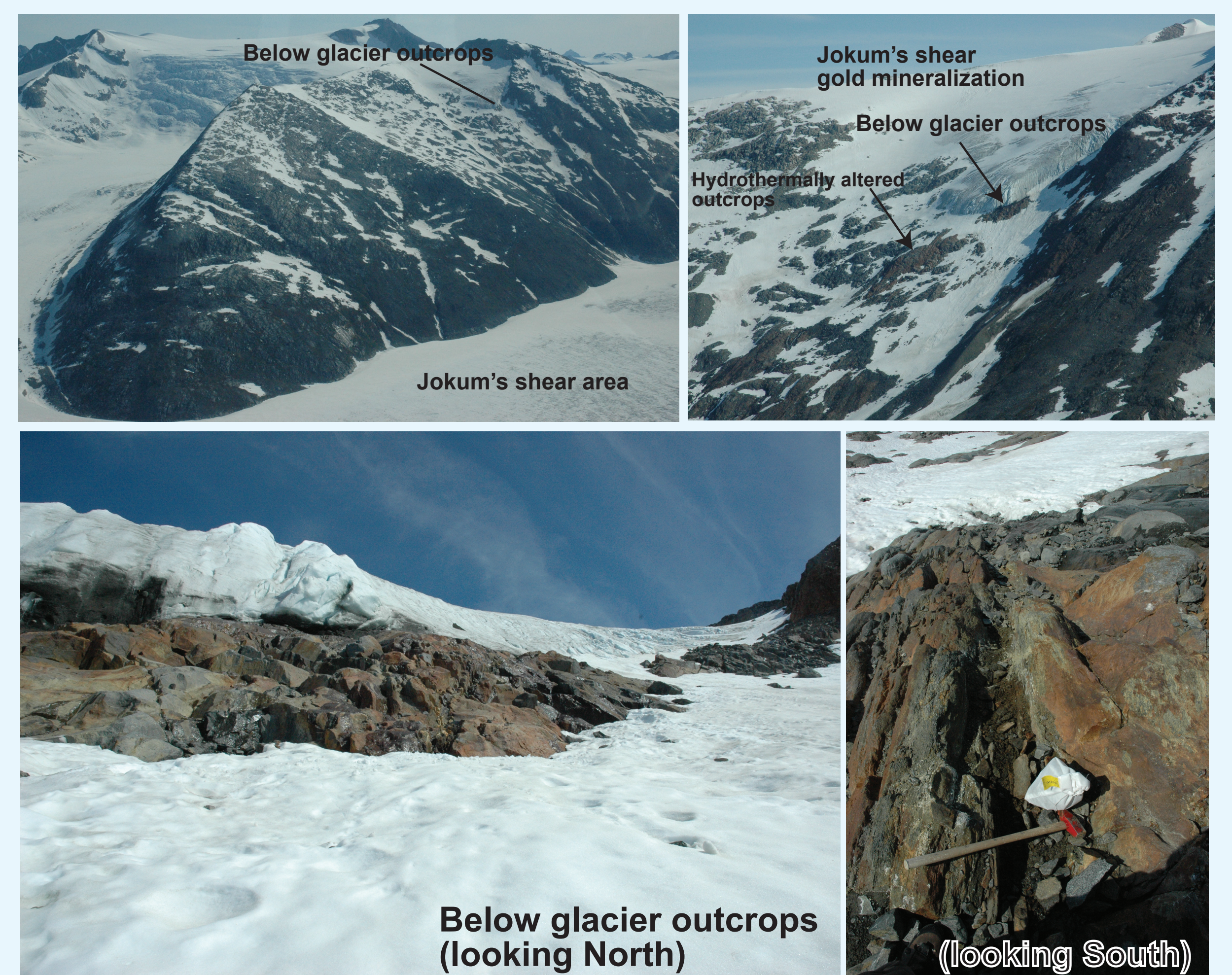
2. Aeromagnetic survey showing the boundary of Ketilidian mobile belt and Archaean craton



4. Gold in South East Greenland: Jokum's shear

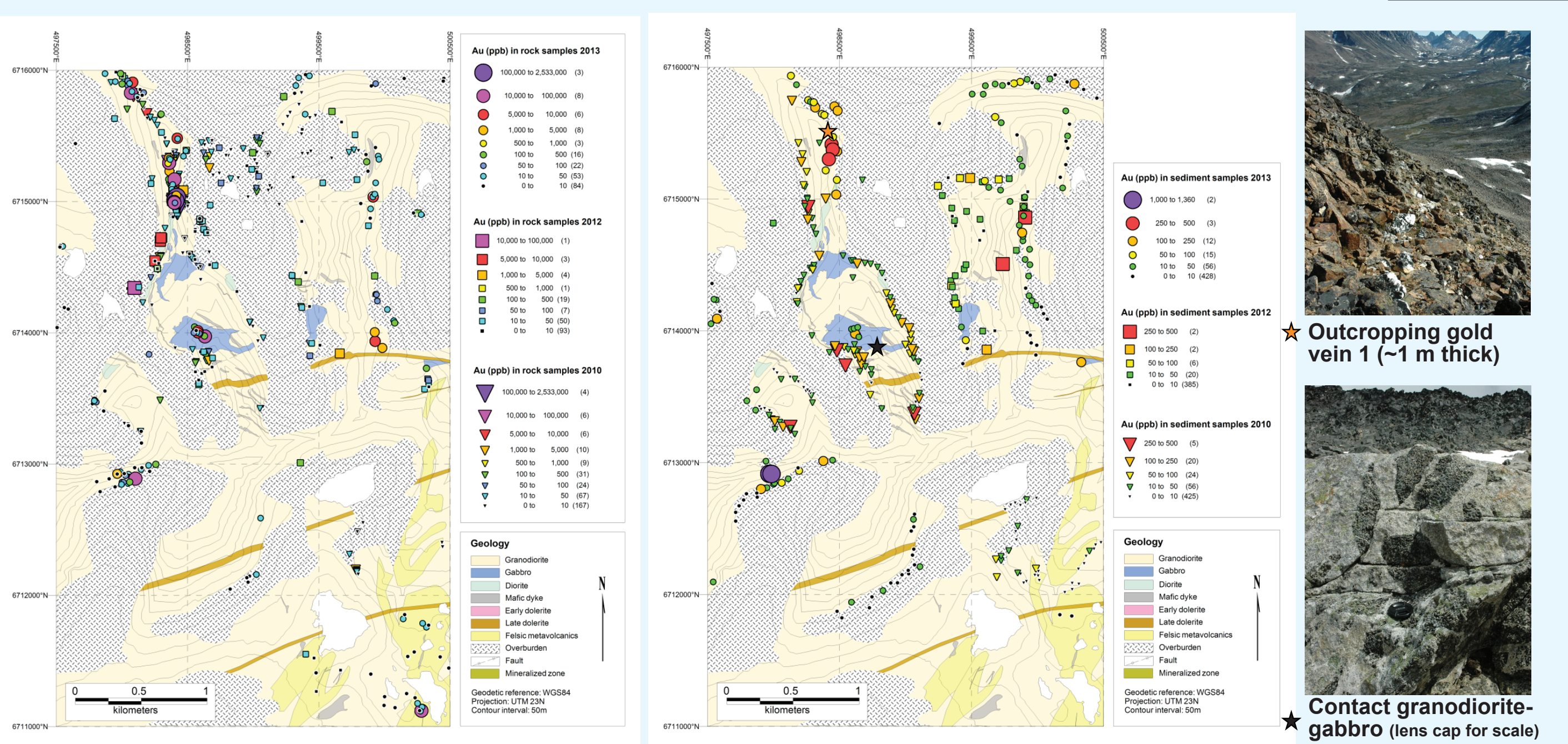
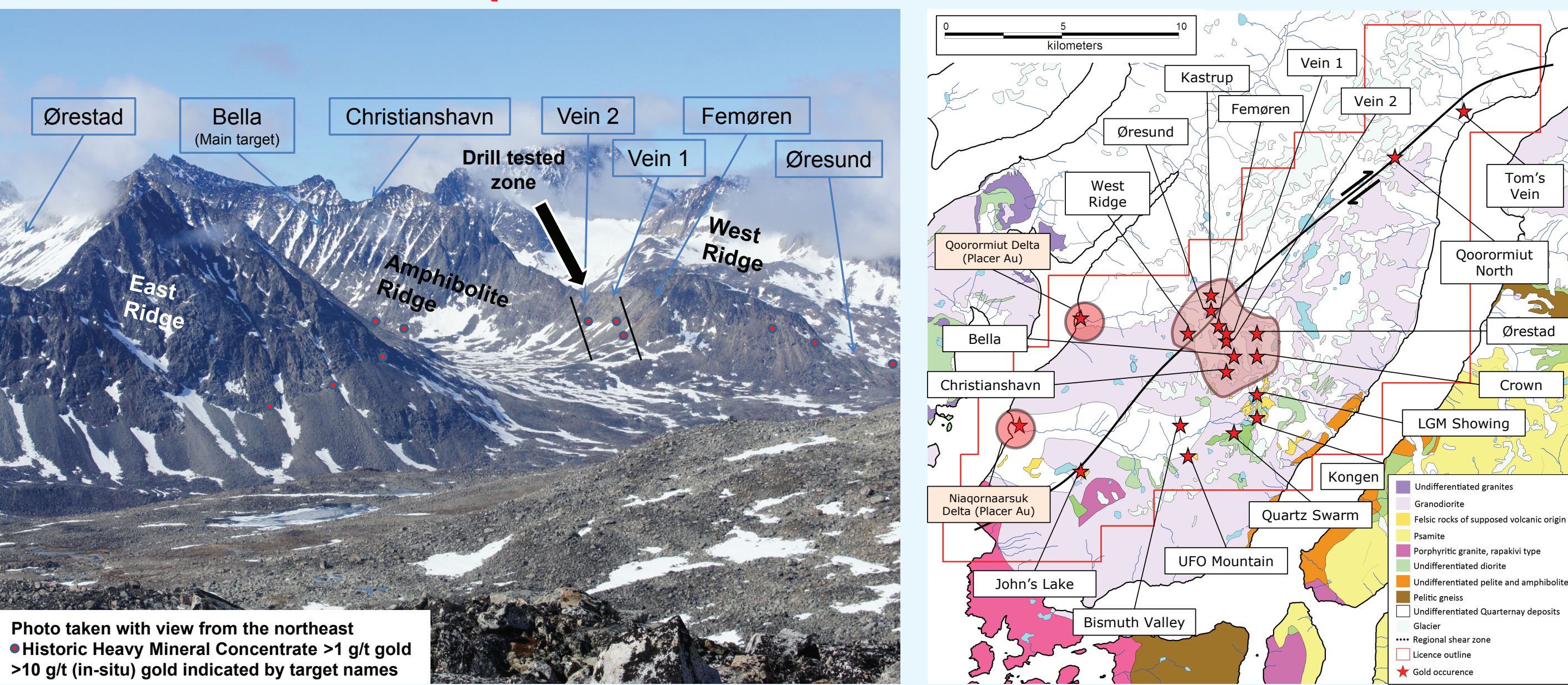


Jokum's shear prospect reconnaissance profile sampling has yielded up to 3.1 m at 9.3 ppm gold hosted in hydrothermally altered mineralised and strongly sulfidised plutonic igneous rocks inferred to have been of gabbroic composition. The associated shear zone system is several tens of meters wide and can be followed over a 1.5 km strike length.



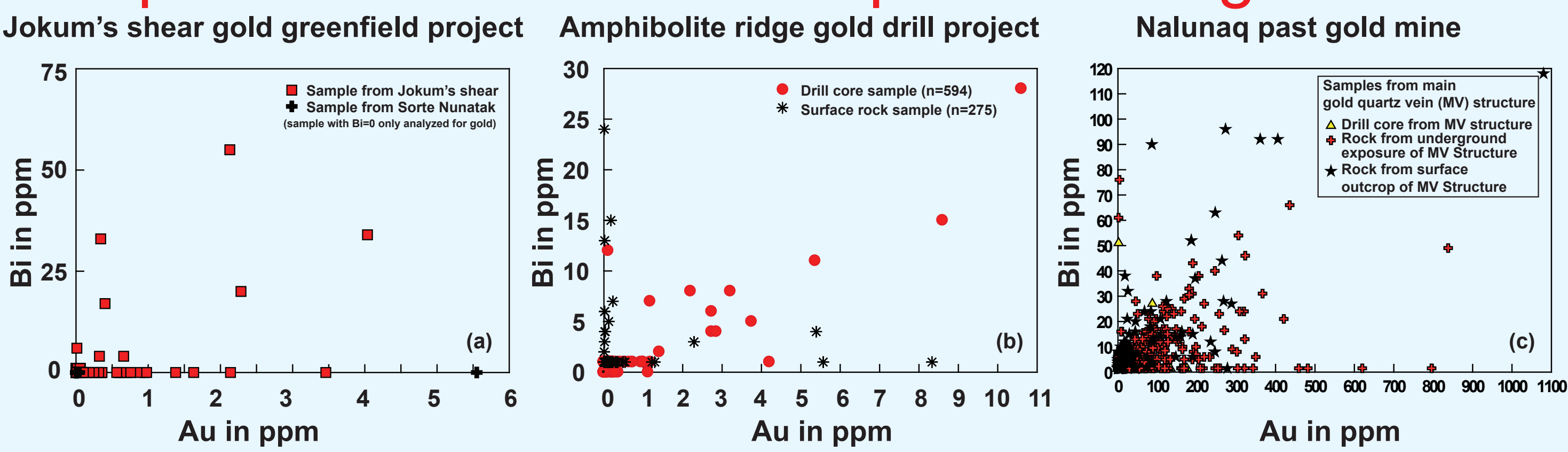
The gold occurrences of Paleoproterozoic age in South Greenland are located in a corridor trending roughly in a northeastern direction. The locus of the gold mineralisation is characterized by its proximity to the southern border of the Julianehåb batholith and the northern contact of the Psammite zone of the Ketilidian orogen.

3. Gold on Niaqornaarsuk Peninsula



In recent years high grade gold mineralisations have been found in quartz-veins of the Paleoproterozoic Nanortalik Gold Belt on the Niaqornaarsuk peninsula with samples of auriferous quartz with up to 2533 ppm Au and mineralised granodiorites up to 14.4 ppm gold.

5. Bi-Au correlation: Jokum's shear and Sorte Nunatak compared to Vein 1+2 at Amphibolite ridge and Nalunaq



Au-Bi correlation is seen from several areas in South Greenland, including the past gold mine Nalunaq where very high Au-grades occurred.

6. Conclusions

The new gold showings at Jokum's shear are particularly interesting because the shear zone that contains the gold mineralizations strikes in a north easterly direction and possibly is continuous for over 25 km if it can be demonstrated that the same shear zone terminates on the South East coast at Kangerluluk where shear hosted gold mineralisation occurs. It is shown from a few other gold mineralisations in South East Greenland that gold can also be hosted in metavolcanic rocks (Kangerluluk) and in mafic rocks (Kutseq). Therefore a variety of host rocks and settings should be targeted in South East Greenland for gold exploration. Especially hydrothermally altered shear zones anomalous in Au, Bi, W and Te, near the Archaean North Atlantic Craton – Paleoproterozoic Julianehåb batholith represent good gold targets.

References:
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 Hughes, J.W., Schlatter, D.M., Berger A. & Christiansen O. 2014: The Paleoproterozoic Nanortalik Gold Belt – a previously unrecognised Intrusion Related Gold System (IRGS) Province in South Greenland. *Applied Earth Science (Trans. Inst. Min. Metall. B)* 2013 VOL 122 NO 3: 156-157
 Schlatter, D.M., Berger, A. & Christiansen, O. 2013: Geological, petrographical and geochemical characteristics of the granitoid hosted Amphibolite Ridge gold occurrence in South Greenland. *Conference proceedings, "Mineral deposit research for a high-tech world."* 12th Biennial SGA Meeting, Uppsala, Sweden, pp. 1189-1192
 Stendal, H., Mueller, W., Birkedal, N., Hansen, E.I. & Østergaard C. 1997: Mafic igneous rocks and mineralisation in the Palaeoproterozoic Ketilidian orogen, South-East Greenland: project SUPRASYS 1996. *Geology of Greenland Survey Bulletin* 176: 66-74