

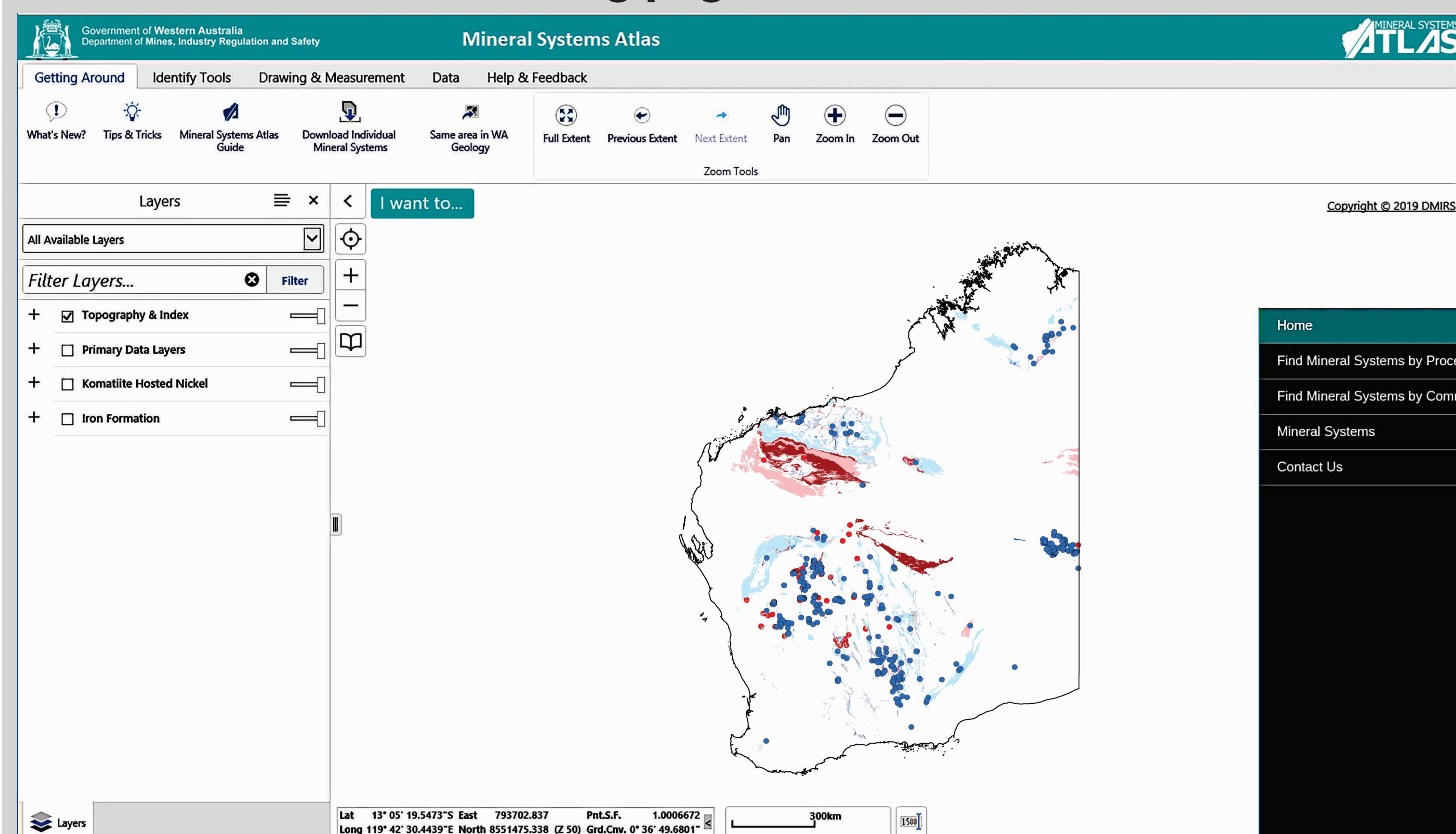
MINERAL SYSTEMS ATLAS

What's new for 2020

The Mineral Systems Atlas is an evolving, interactive GIS-based platform that delivers tailored data layers relevant to Western Australian mineral deposits. Layer content is defined using a Mineral Systems Analysis approach, and derived from primary Geological Survey of Western Australia geoscience data. Atlas users can compile any combination of mineral system layers, learn how the derived layers were created, and export these layers and underlying data for use in their own GIS platforms.

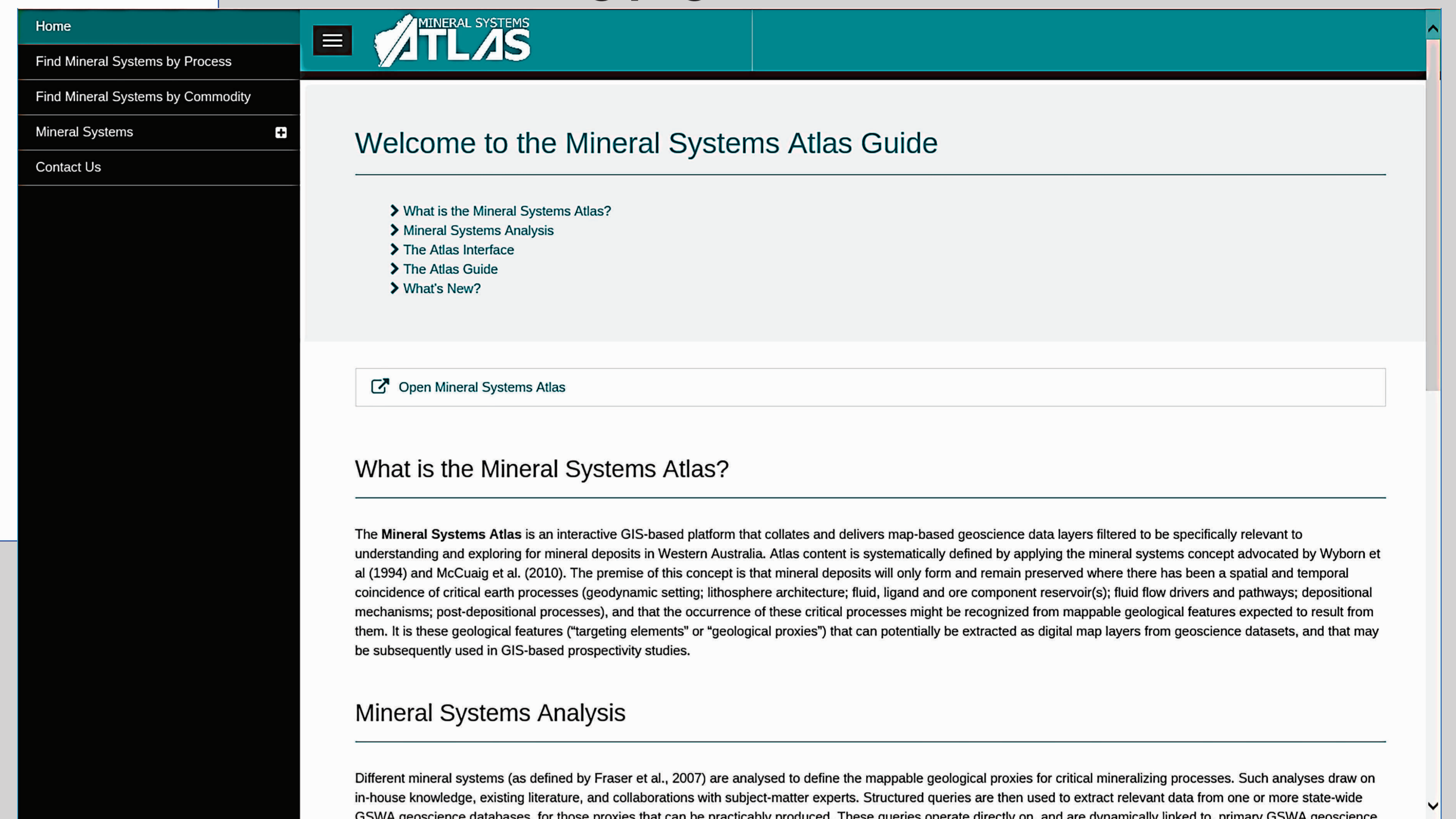


Landing page of the Atlas



The Atlas interface is modelled after GeoVIEW.WA, so as to be familiar to experienced users

Landing page of the Guide



Website linked to the Atlas describing the logic and content of the Mineral Systems Atlas

Improvements

In 2019, the Atlas had a series of adjustments:

- linked to the HTML5 compatible GeoVIEW.WA
- layers are regenerated every weekend
- geochemistry layer symbology has improved readability
- sites not related to mineralization (e.g. dump, stockpile) removed from the MINEDEX DERIVED layer

In 2020, the Atlas will move from GDA94 to GDA2020.

Updates

Mineral Systems Atlas is a platform designed to grow and incorporate more systems and datasets. In 2020, we are planning to release:

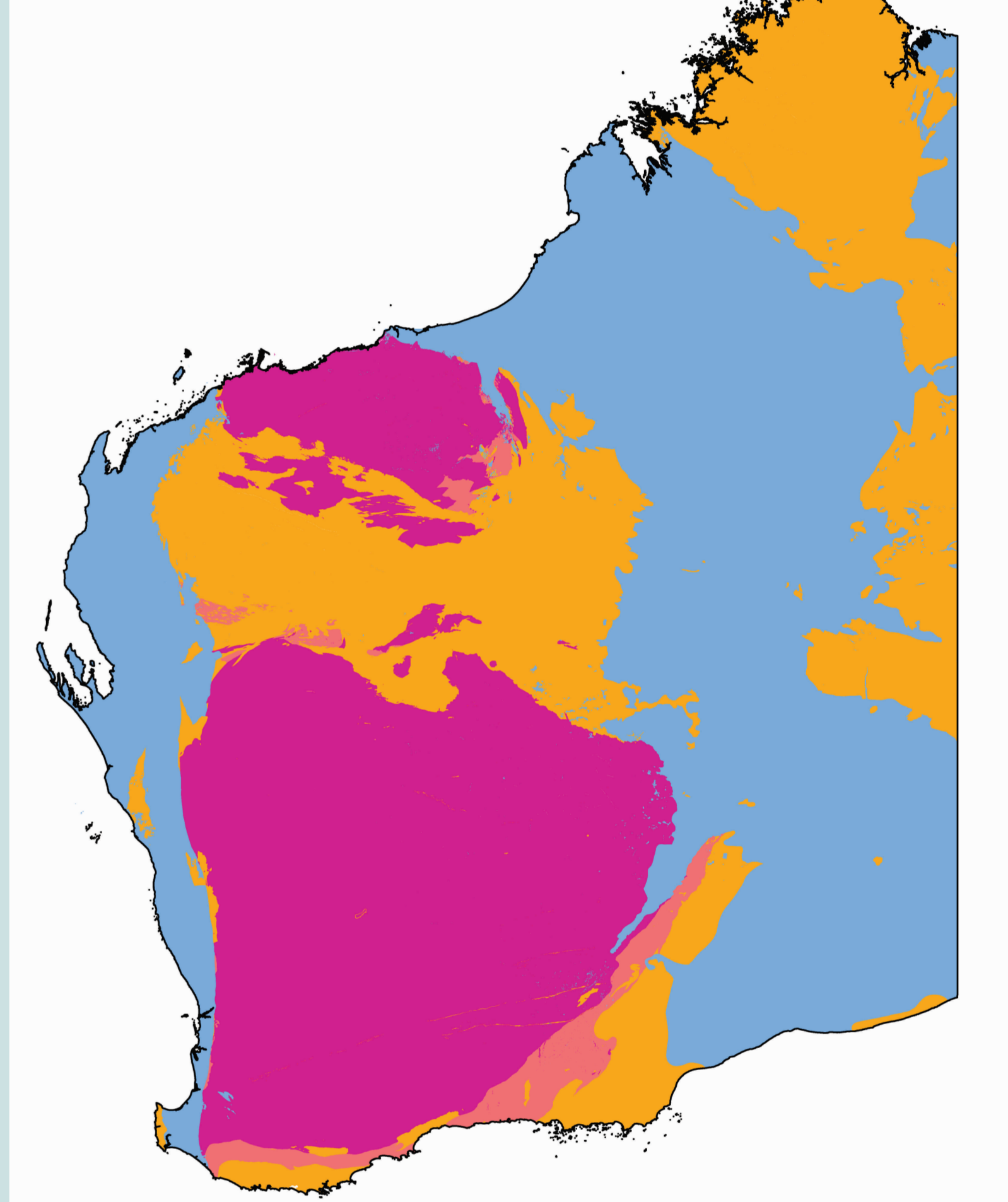
- three primary datasets: field observations, tectonic units and geological time slices
- two mineral systems will be added: rare-element pegmatite (Li–W–Sn) and layered intrusion-hosted vanadium (V)

Field observations



Sites recorded in the field observation database, WAROX

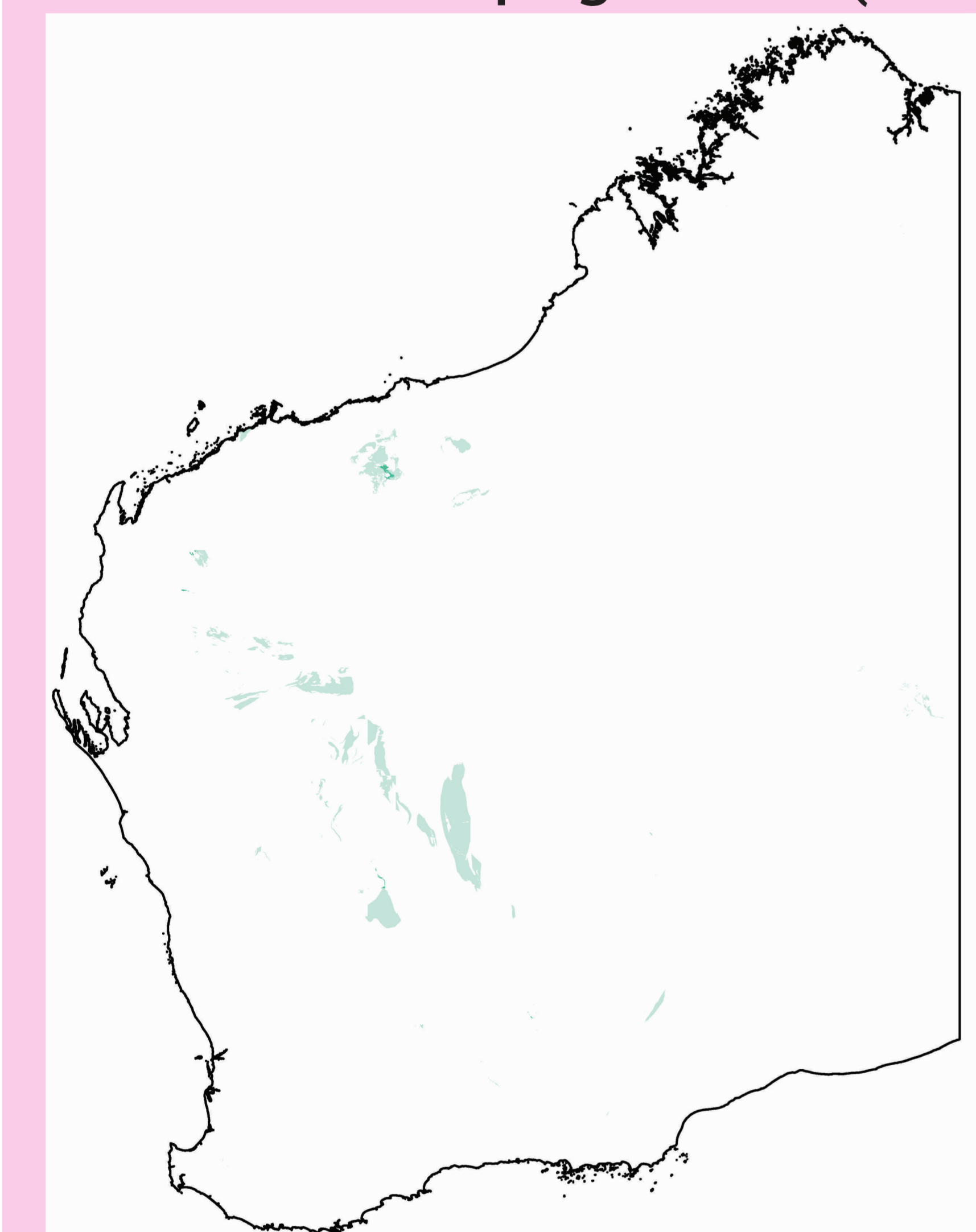
Time slices



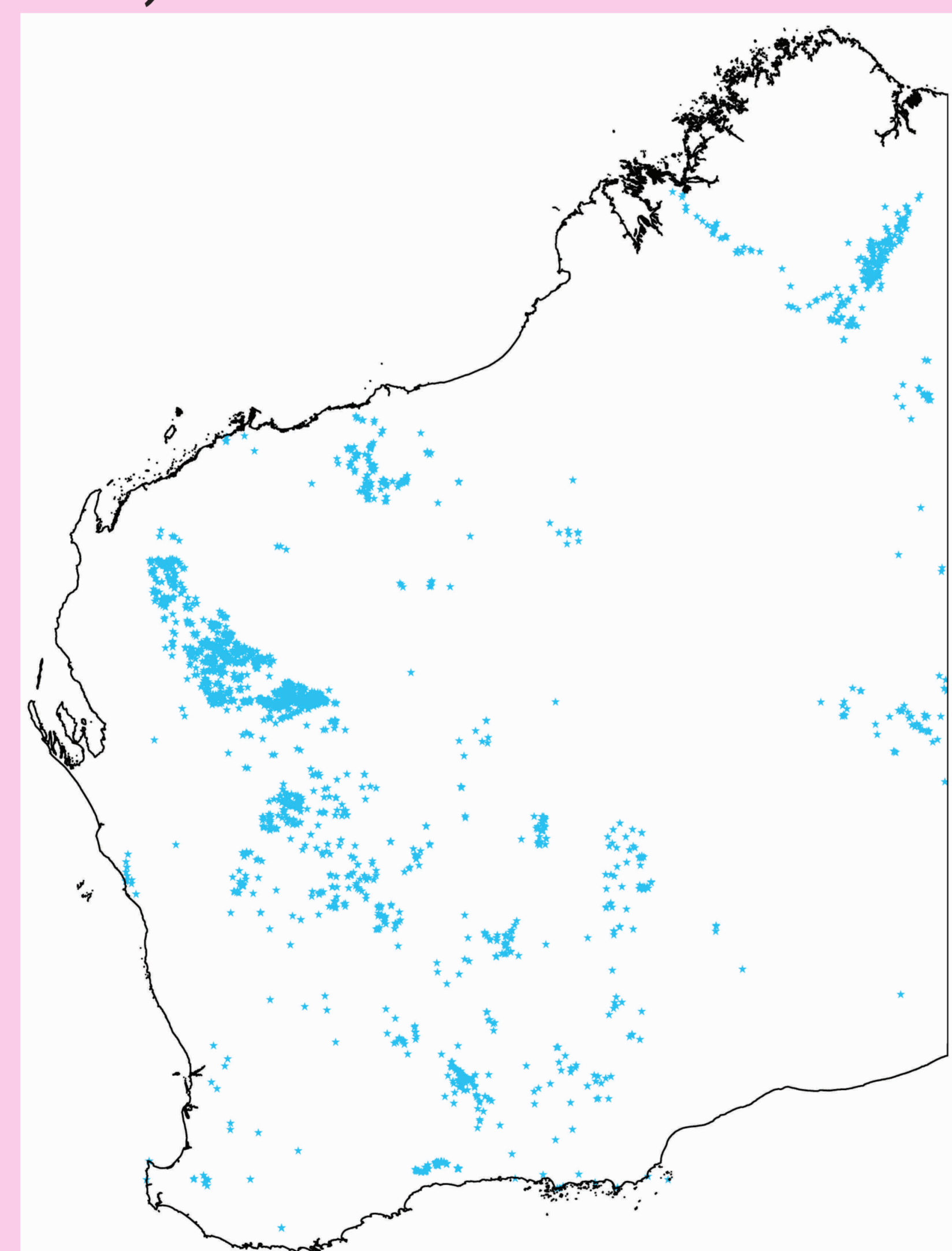
Time slices of the geology showing the Archean in purple, Proterozoic/Archean in pink, Proterozoic in orange and Phanerozoic in blue

Example of new layers

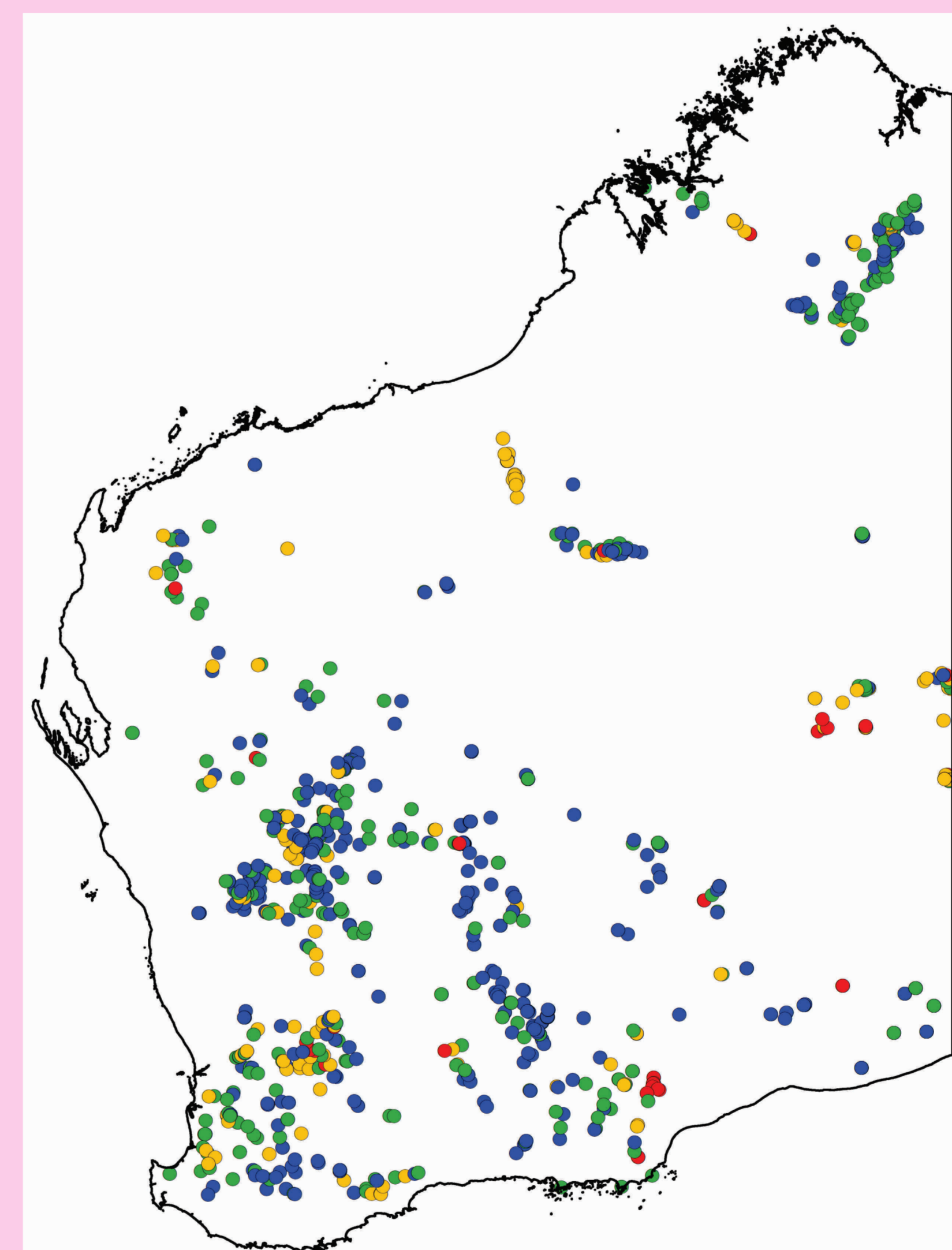
Rare-element pegmatite (Li–W–Sn)



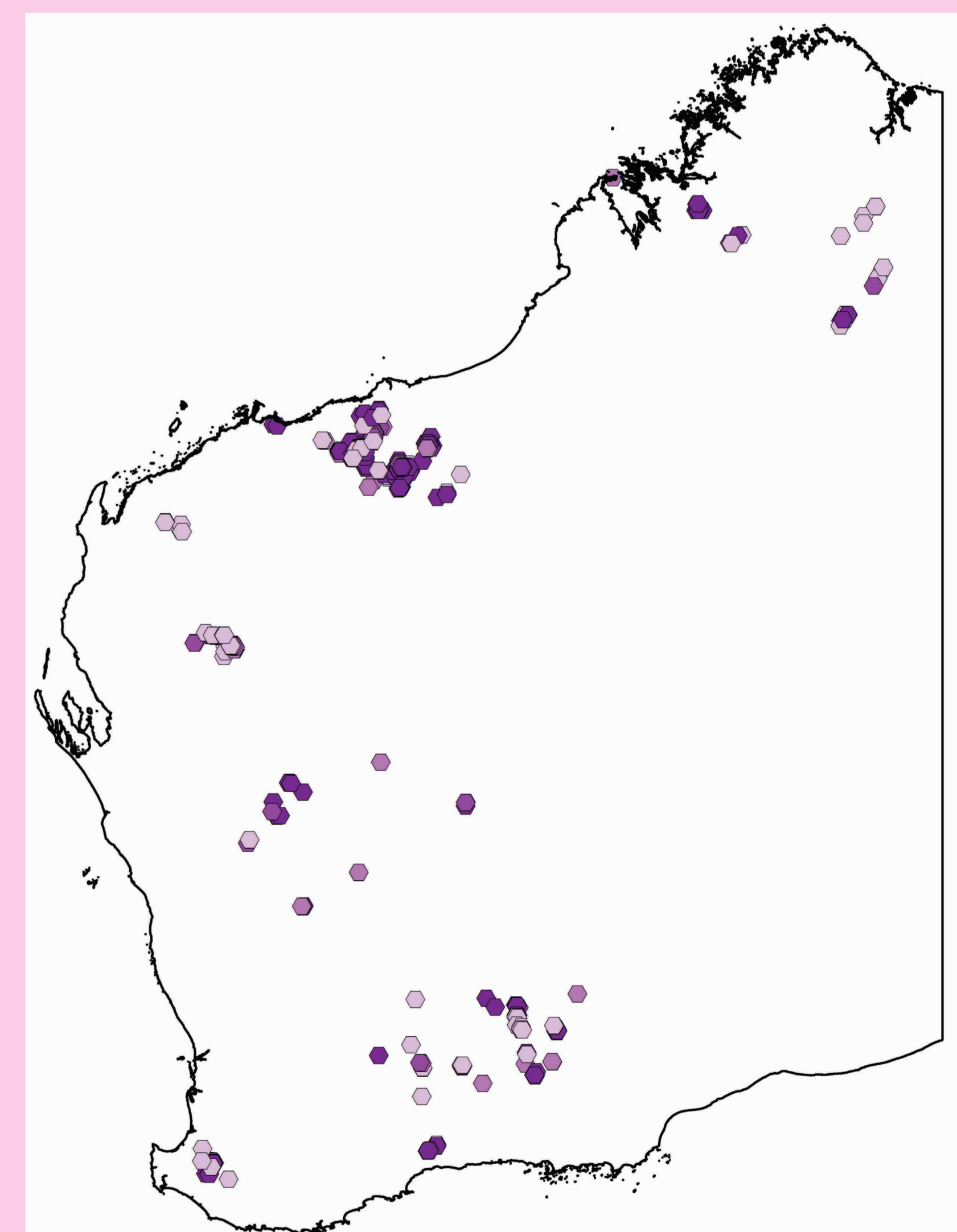
Pegmatite polygons recorded in the 500k and 100k interpreted bedrock geology



Pegmatites recorded in the field observation database (WAROX)

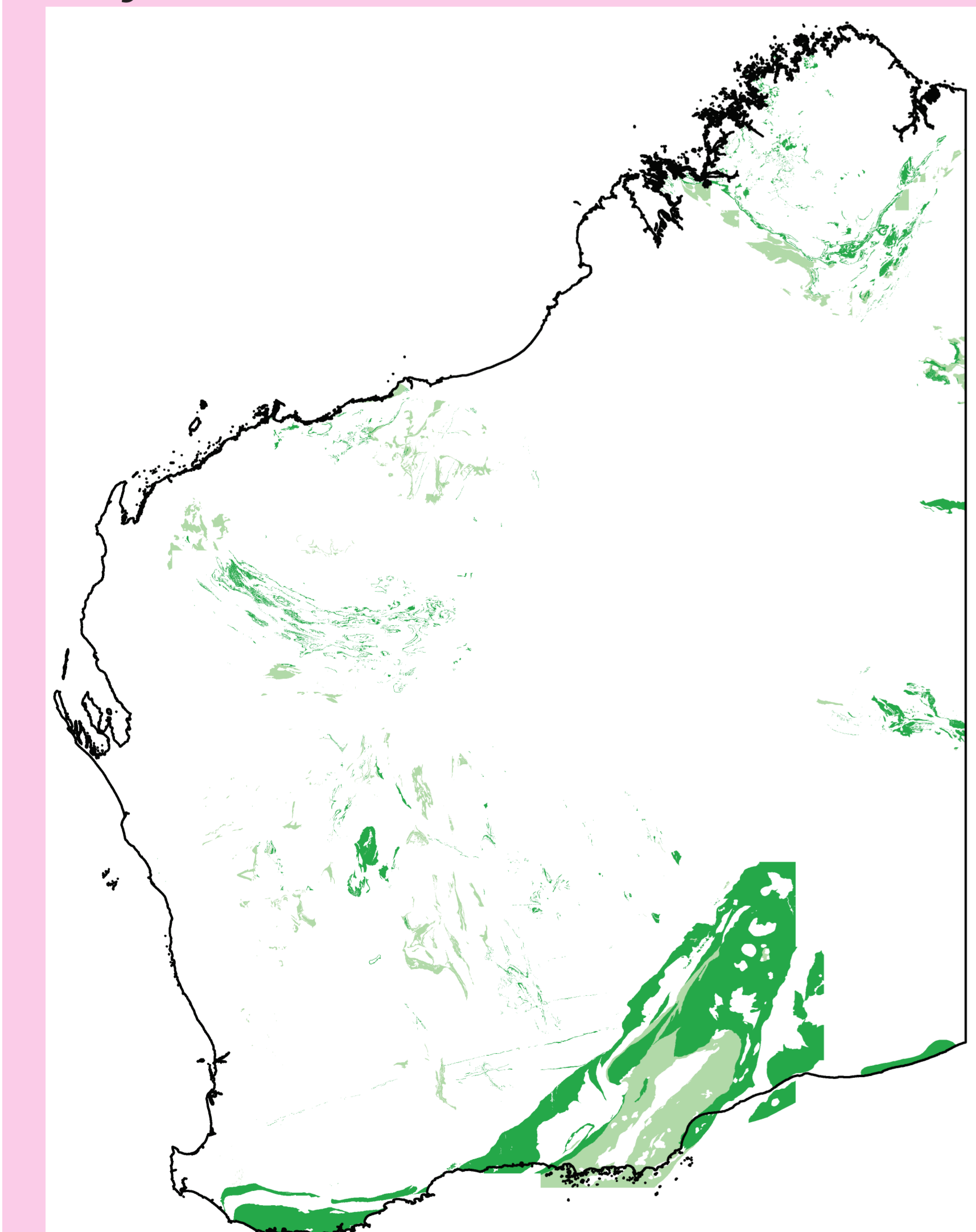


Total rare earth element (REE) content in granites (geochemistry database). Lowest concentrations are in blue, highest concentrations are in red

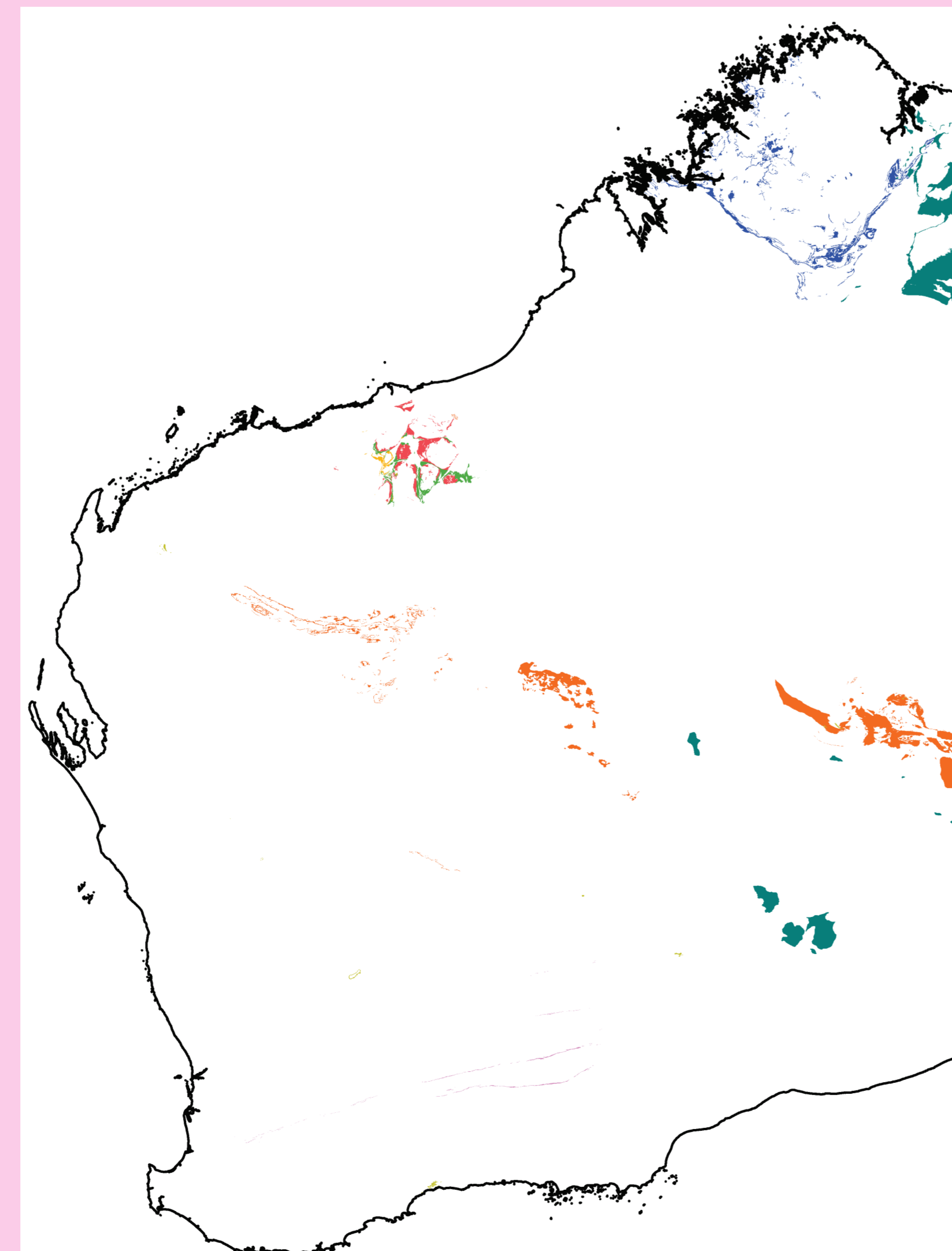


Mineralization sites for rare-element pegmatites (MINEDEX)

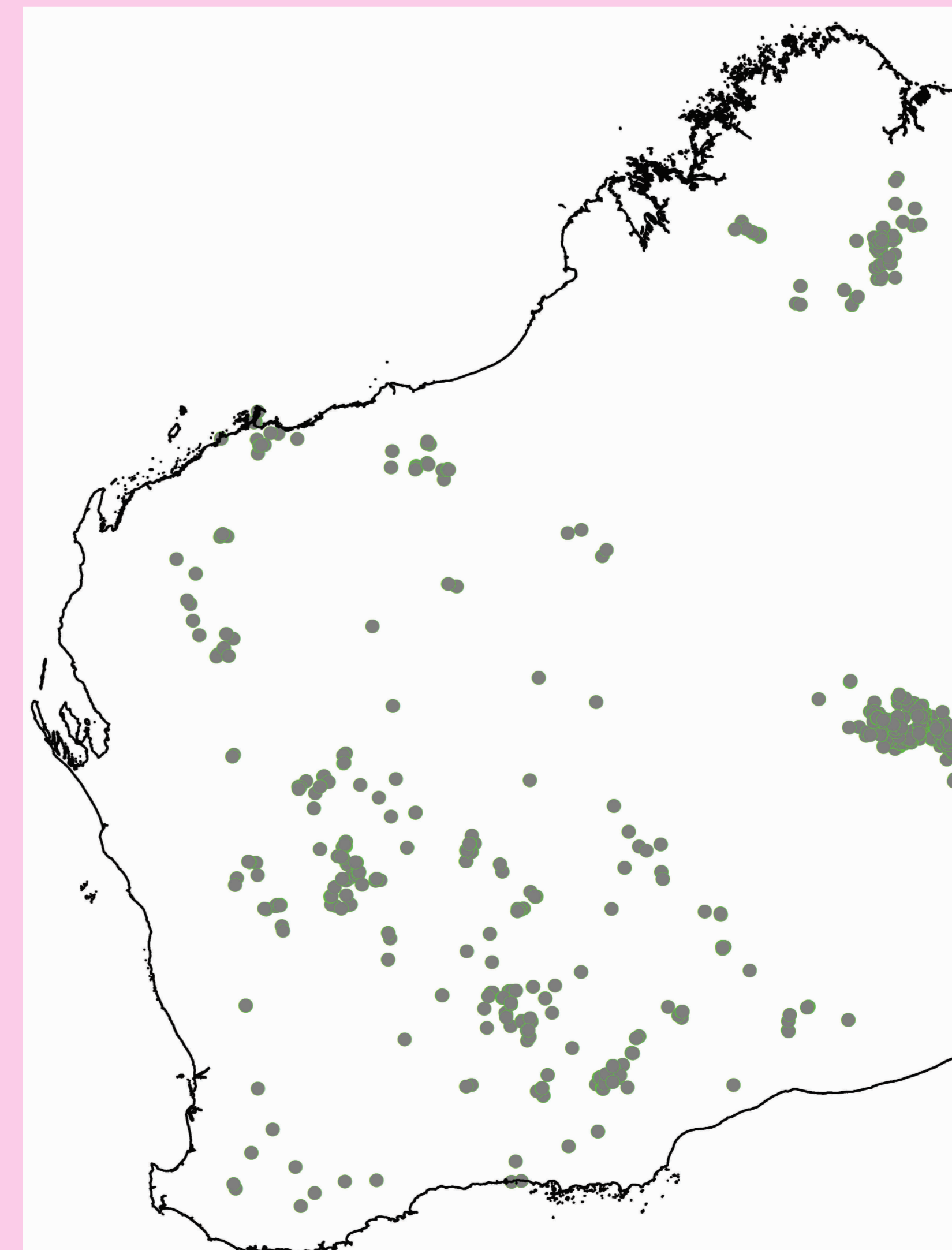
Layered intrusion hosted vanadium



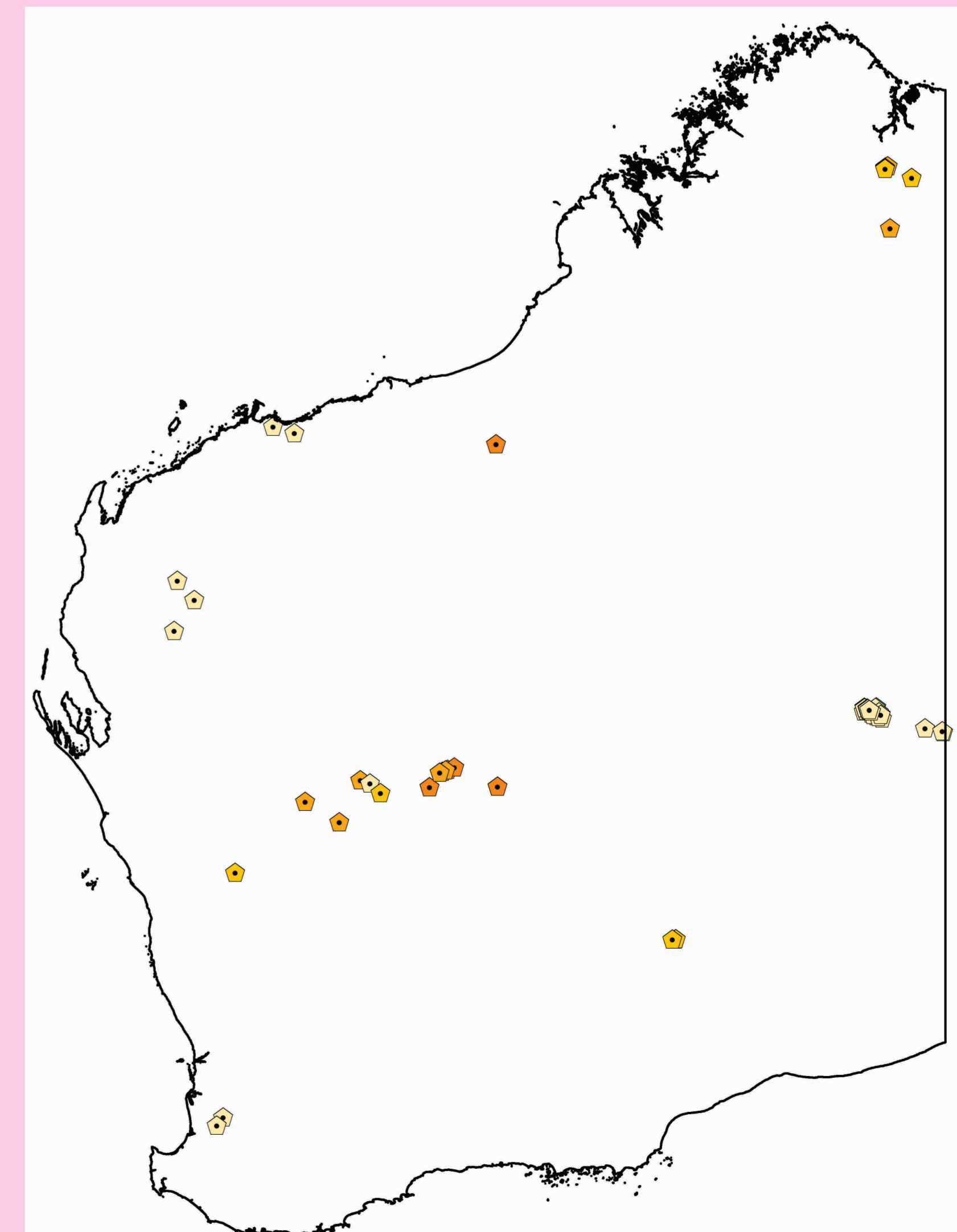
Polygons containing lithologies likely to be a source or a trap for vanadium mineralization (500k and 100k interpreted bedrock geology)



Large igneous provinces (LIP) lithologies in the tectonic units database



Geochemistry samples for lithologies that are potentially related to vanadium (geochemistry database)



Mineralization sites for vanadium (MINEDEX)

The Mineral Systems Atlas is available at:
www.dmirs.wa.gov.au/MineralSystemsAtlas

For more information, contact:
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