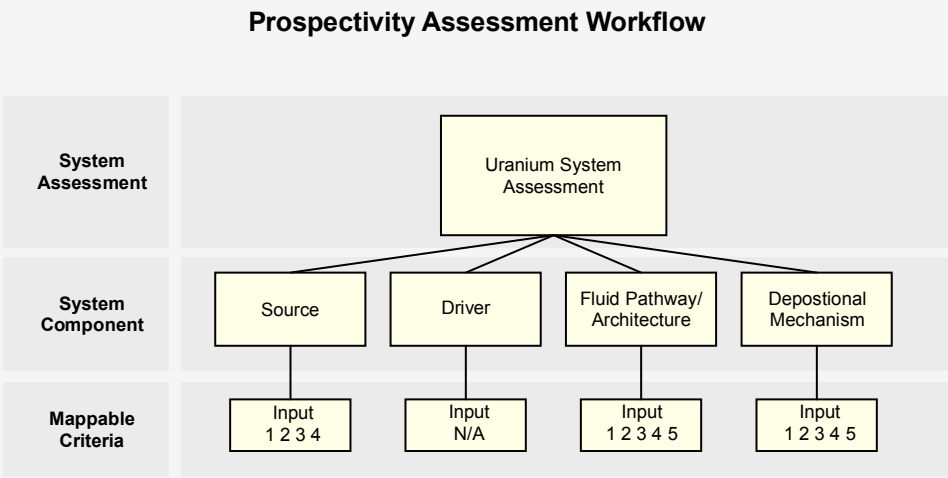
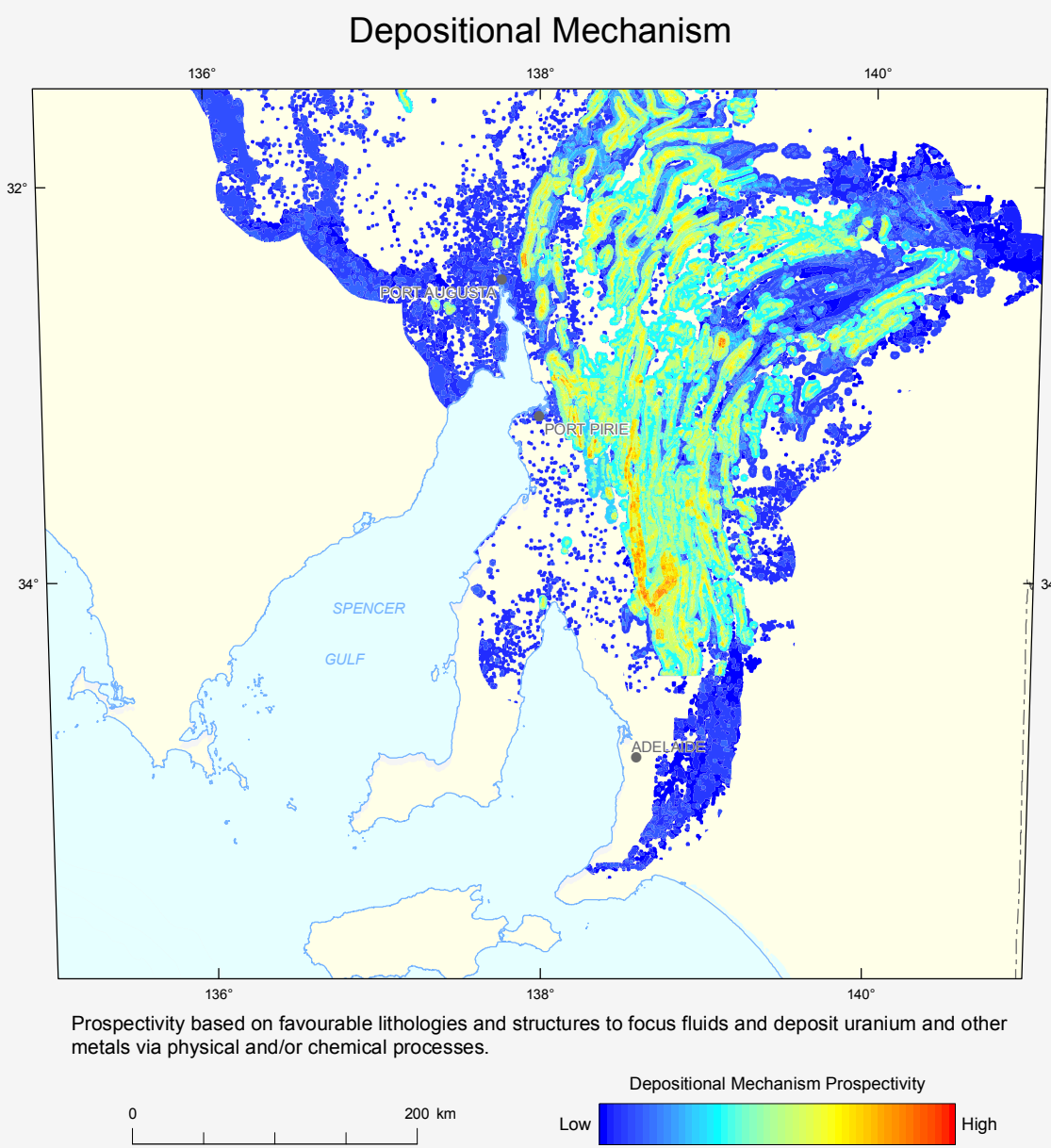
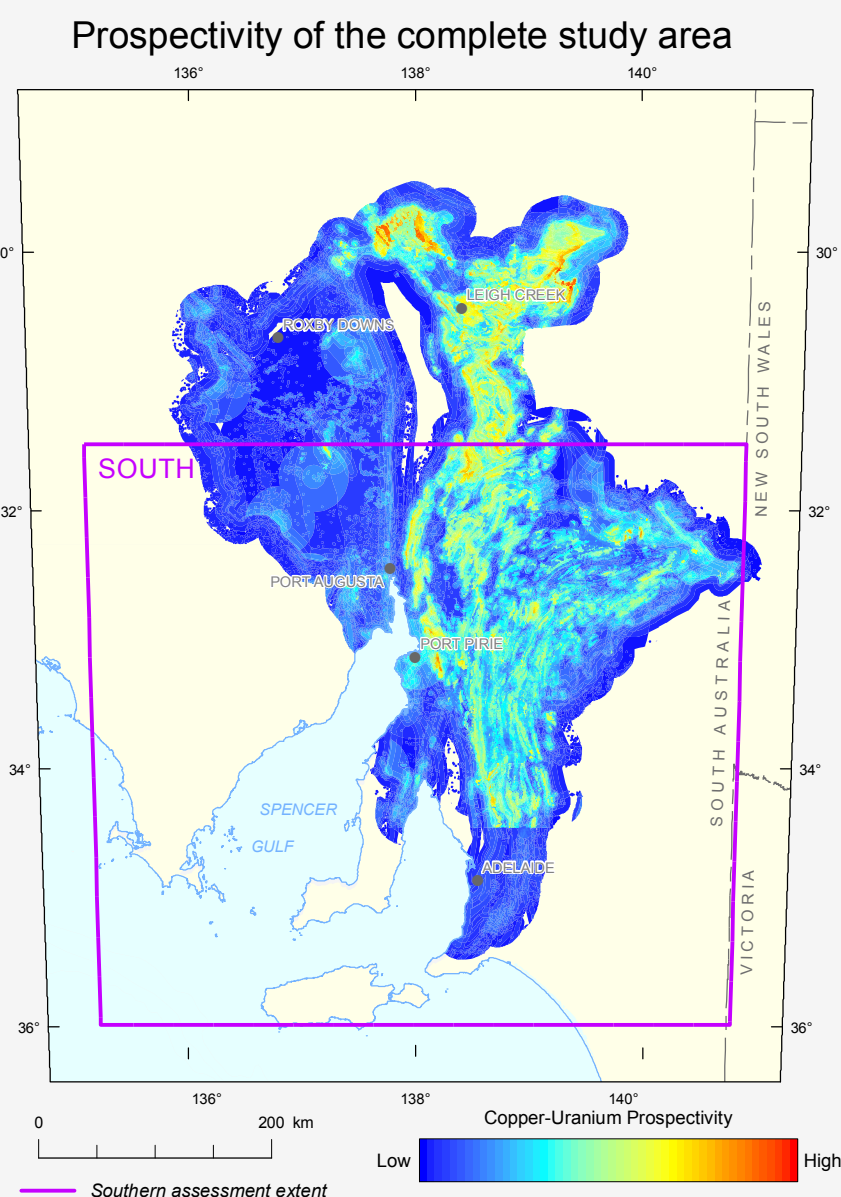
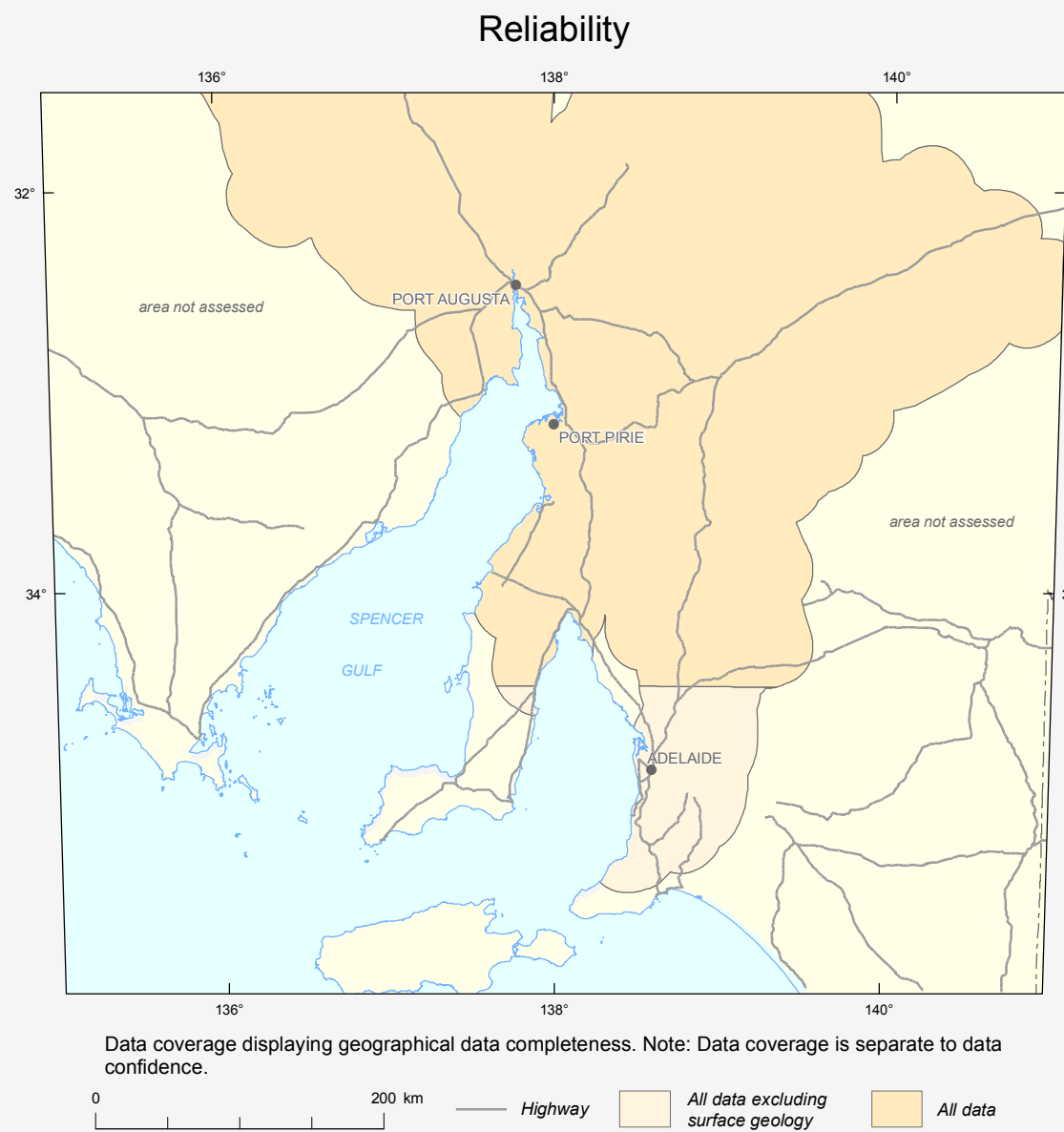
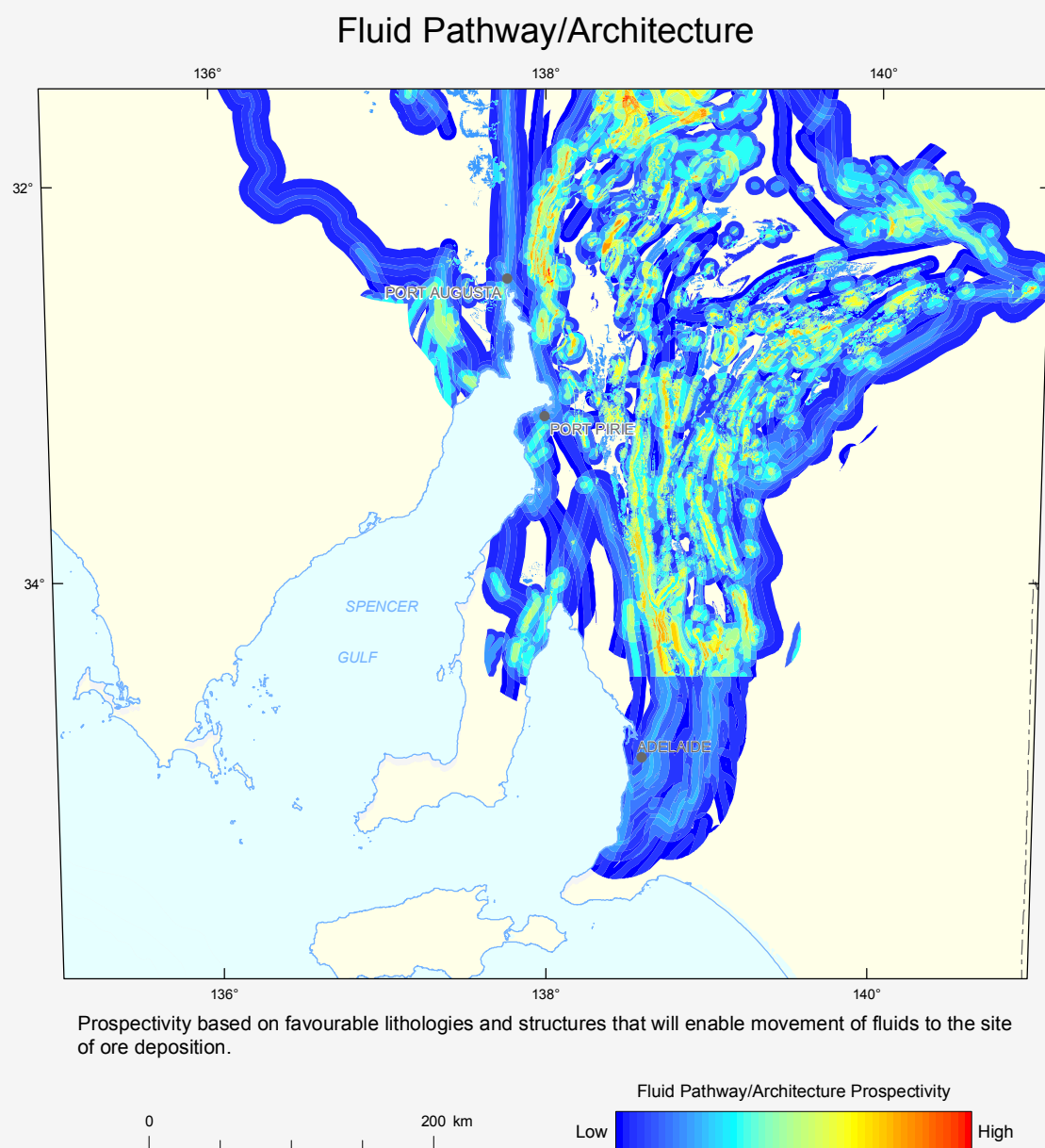
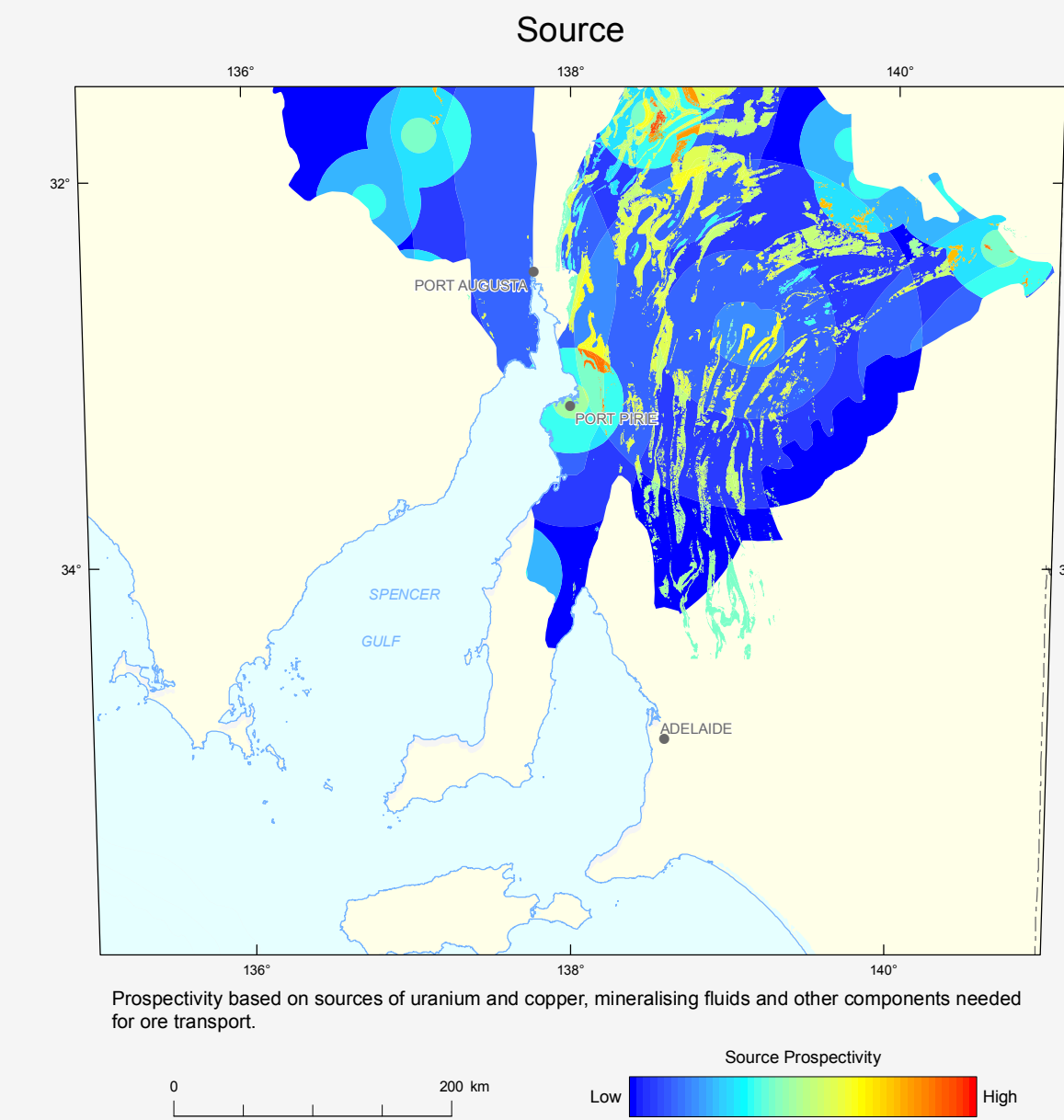
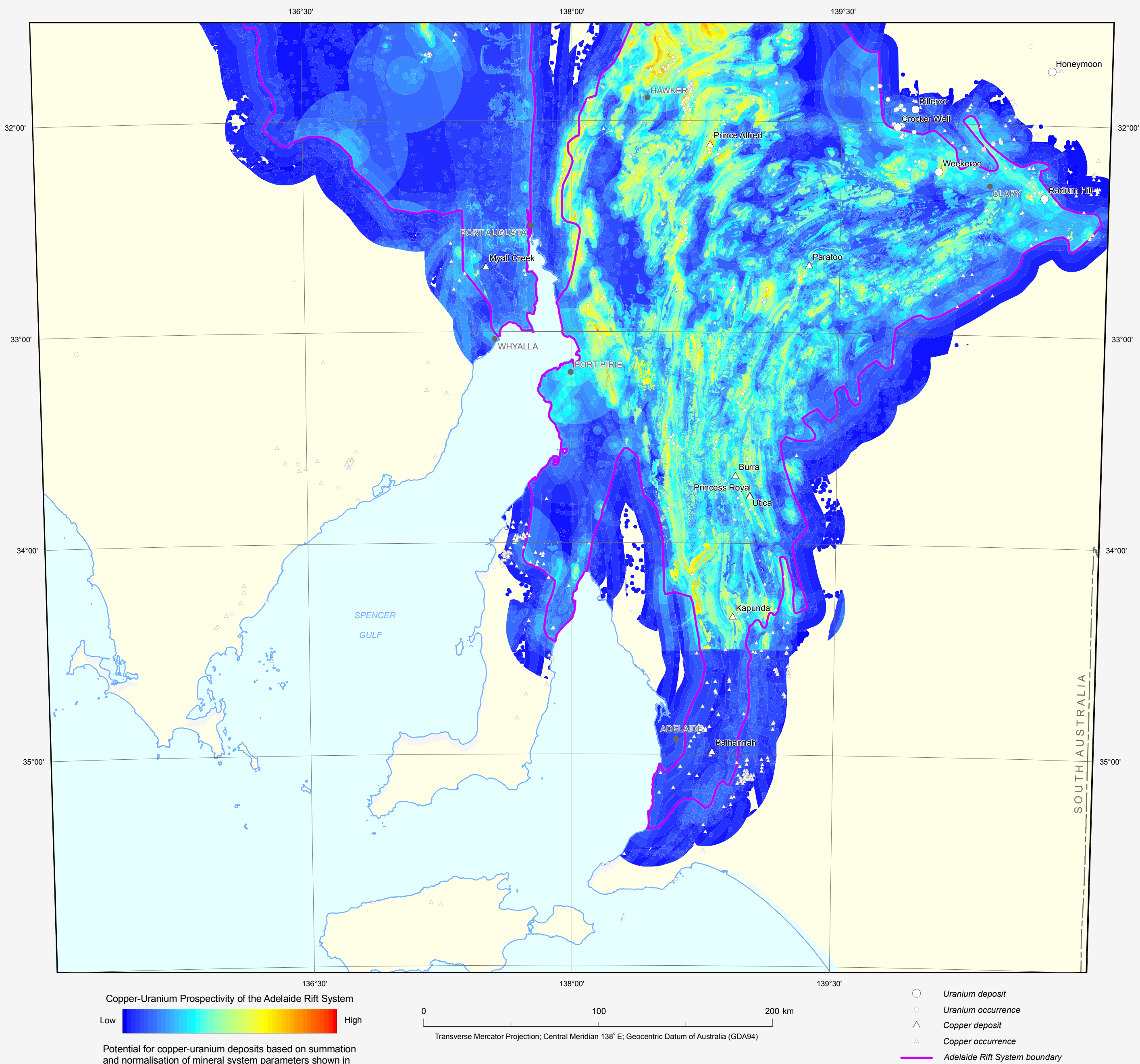


SOUTH AUSTRALIA ENERGY SYSTEMS ASSESSMENT

COPPER-URANIUM PROSPECTIVITY OF THE ADELAIDE RIFT SYSTEM (SOUTH)



Energy Assessment Prospectivity

The uranium system assessment is a function of four key mineral system components a) source, b) driver, c) fluid pathway/architecture, and (d) depositional mechanism. Each mineral system component is comprised of a varying number of inputs specific to the targeted mineral system assessment. This assessment is confined to the Adelaide Rift System.

Source

Potential for sources of uranium and other metals, mineralising fluids and other components needed for ore transport. The source weighting is calculated by combining the constituent mappable criteria listed below and normalised to the total number of mappable criteria. The input data are:

- 1) Distribution of uranium-rich rocks (U)
- 2) Distribution of felsic volcanic rocks (U)
- 3) Distribution of mafic volcanic rocks (Cu)
- 4) Presence of evaporate minerals and stromatolites indicating production of basinal brines (fluids and ligands)

Driver

Prospectivity based on energy gradients that will mobilise sufficient quantities of ore-bearing fluids to the site of deposition. The driver weighting is calculated by combining the constituent mappable criteria listed below and normalised to the total number of mappable criteria. No criteria were used for this systems component.

Fluid Pathway/Architecture

Potential for favourable lithologies and structures that will enable movement of fluids to the site of ore deposition. The fluid pathway/architecture weighting is calculated by combining the constituent mappable criteria listed below and normalised to the total number of mappable criteria. The input data are:

- 1) Distribution of basal unconformity between Adelaide Fold Belt and basement
- 2) Distribution of detailed mapped faults (at 1:100 000 scale)
- 3) Distribution of regional interpreted faults (from magnetic and gravity data)
- 4) Distribution of potential sedimentary aquifers
- 5) Distribution of diaps

Depositional Mechanism

Potential for favourable lithologies and structures to focus fluids and deposit uranium and other metals via physical and/or chemical processes. The depositional mechanism weighting is calculated by combining the constituent mappable criteria listed below and normalised to the total number of mappable criteria. The input data are:

- 1) Evidence of uranium deposition
- 2) Thorium enrichment which may indicate uranium deposition at depth
- 3) Distribution of redox gradients as indicated by carbonaceous rocks
- 4) Distribution of redox gradients as indicated by iron-rich rocks
- 5) Distribution of chemical gradients as indicated by carbonate-rich rocks

Reliability Index

Data coverage displaying geographical data completeness. Note: Data coverage is separate to data confidence.



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