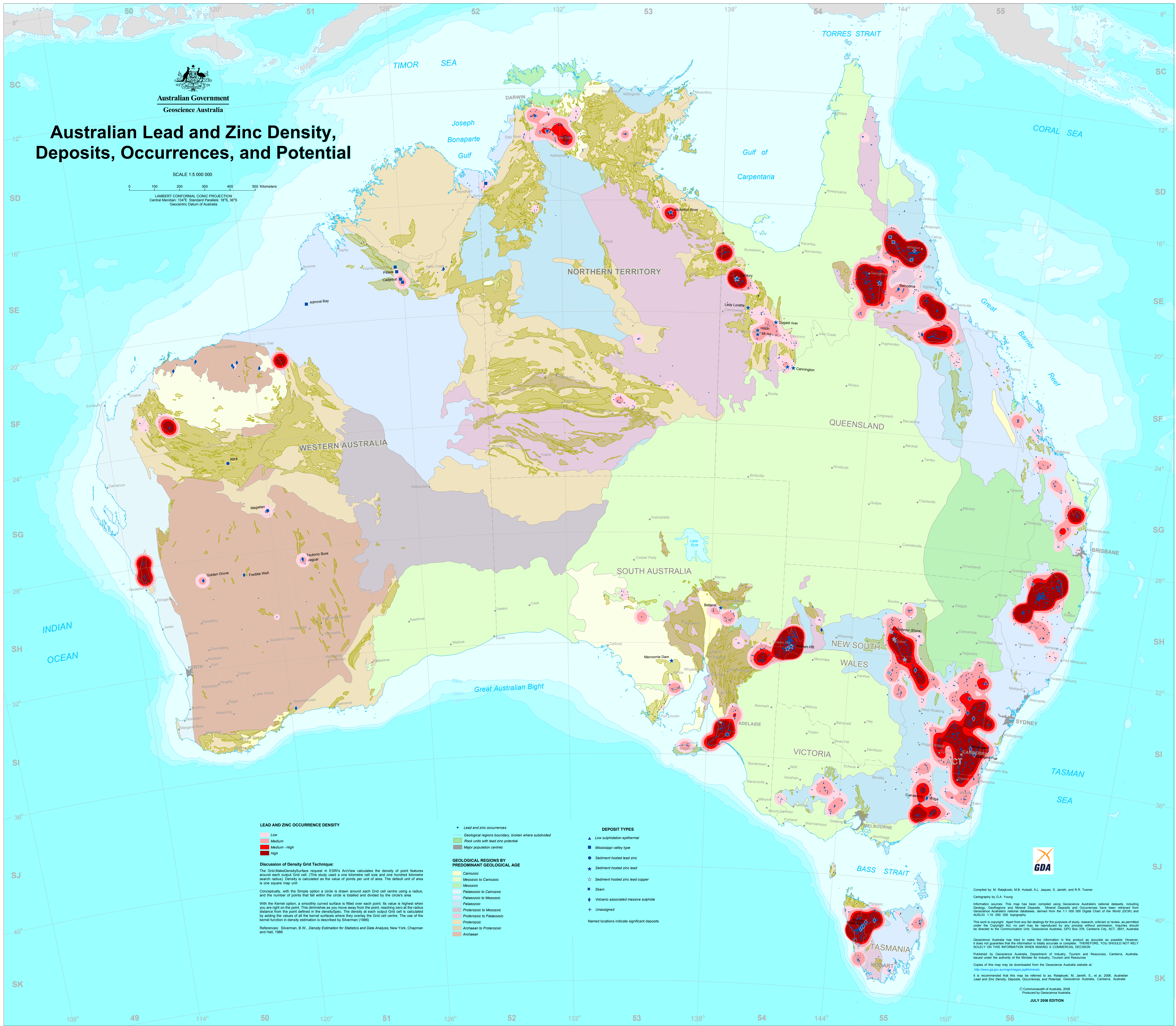


Australian Lead and Zinc Density, Deposits, Occurrences, and Potential

SCALE 1:5 000 000
0 100 200 300 400 500 Kilometers
LAMBERT CONFORMAL CONIC PROJECTION
Central Meridian: 134°E Standard Parallels: 16°S, 36°S
Geocentric Datum of Australia



LEAD AND ZINC OCCURRENCE DENSITY

- Low
- Medium
- Medium-High
- High

Discussion of Density Grid Technique:

The GridMileDensitySurface request in ESRI's ArcView calculates the density of point features around each output Grid cell. (This study used a one kilometre cell size and one hundred kilometre search radius). Density is calculated as the value of points per unit of area. The default unit of area is one square map unit.

Conceptually, with the Simple option a circle is drawn around each Grid cell centre using a radius, and the number of points that fall within the circle is totalled and divided by the circle's area.

With the Kernel option, a smoothly curved surface is fitted over each point. Its value is highest when you are right on the point. This diminishes as you move away from the point, reaching zero at the radius distance from the point defined in the densitySpec. The density at each output Grid cell is calculated by adding the values of all the kernel surfaces where they overlap the Grid cell centre. The use of the kernel function in density estimation is described by Silverman (1986).

References: Silverman, B.W., Density Estimation for Statistics and Data Analysis, New York, Chapman and Hall, 1986

LEAD AND ZINC OCCURRENCE DENSITY

- Lead and zinc occurrences
 - Geological regions boundary, broken where subdivided
 - Rock units with lead zinc potential
 - Major population centres
- ### GEOLOGICAL REGIONS BY PREDOMINANT GEOLOGICAL AGE
- Cenozoic
 - Mesozoic to Cenozoic
 - Mesozoic
 - Paleozoic to Cenozoic
 - Paleozoic to Mesozoic
 - Proterozoic to Mesozoic
 - Proterozoic to Paleozoic
 - Proterozoic
 - Archaean to Proterozoic
 - Archaean

DEPOSIT TYPES

- Low sulphidation epithermal
- Mississippi valley type
- Sediment hosted lead zinc
- Sediment hosted zinc lead
- Sediment hosted zinc lead copper
- Skarn
- Volcanic associated massive sulphide
- Unassigned
- Named locations indicate significant deposits



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Cartography by G.A. Young

Information sources: This map has been compiled using Geoscience Australia's national datasets, including Geology, Geophysics and Mineral Deposits. Mineral Deposits and Occurrences have been retrieved from Geoscience Australia's national databases, derived from the 1:1 000 000 Digital Chart of the World (DCW) and AUSLIS 1:100 000 topography.

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Published by Geoscience Australia, Department of Industry, Tourism and Resources, Canberra, Australia. Issued under the authority of the Minister for Industry, Tourism and Resources.

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It is recommended that this map be referred to as: Rajajoki, M. Jarrett, S., et al. 2006. Australian Lead and Zinc Density, Deposits, Occurrences, and Potential. Geoscience Australia, Canberra, Australia.

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JULY 2006 EDITION