



- World-class, low-cost GEMCO manganese mine at Groote Eylandt produces more than 15% of global production, and has been in operation since 1965.
- Mineralisation at Groote Eylandt comprises flat-lying oolitic and pisolitic sedimentary manganese within the Cretaceous Walker River Formation of the Carpentaria Basin.
- The Cretaceous palaeo-shoreline is a target for further sedimentary manganese deposits.
- The Bootu Creek manganese deposit is a hydrothermally modified sedimentary deposit hosted in Palaeoproterozoic rocks of the Tomkinson Province.

Operating mines

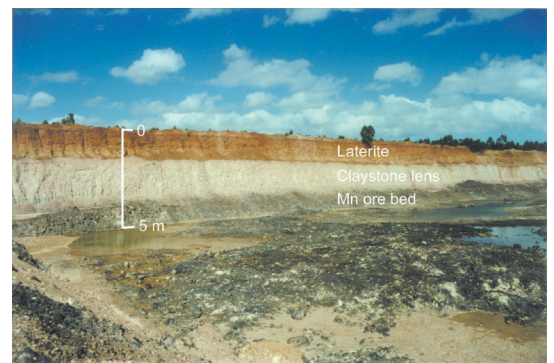
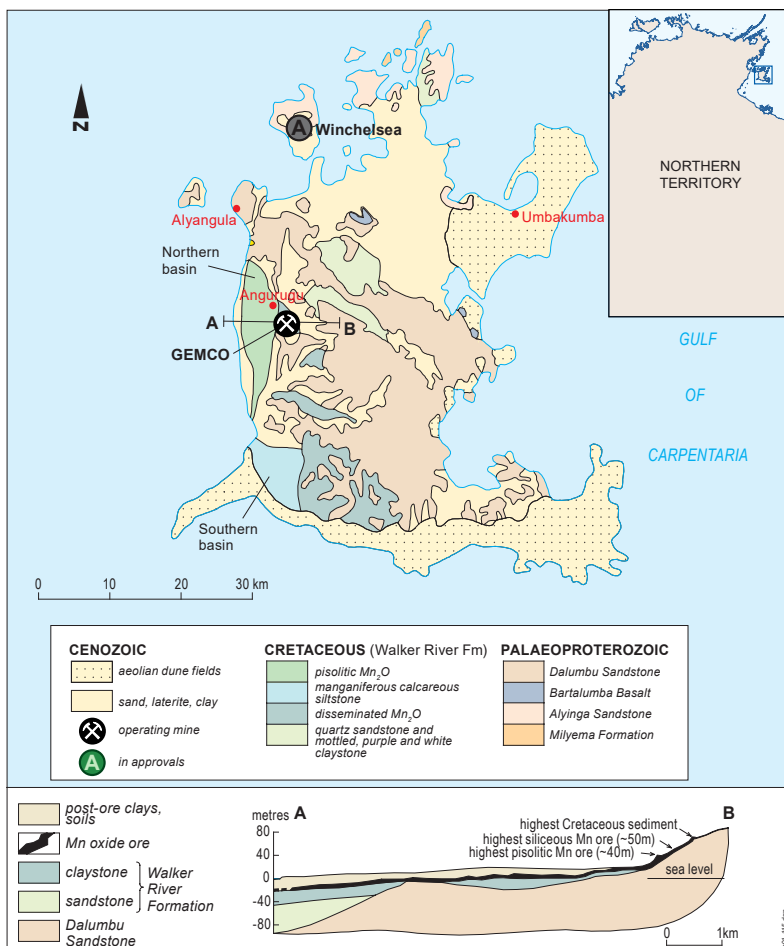
Geological Province	Name	Annual Production	Resource	Company
Carpentaria Basin	GEMCO	3.9 Mt manganese concentrate (2023-24)	123 Mt @ 43.6% Mn (ROM) and 12 Mt @ 20% Mn (Sands)	South 32 Ltd

Care and Maintenance

Geological Province	Name	Resource	Company
Tomkinson Province	Bootu Creek	6.86 Mt @ 13.19% Mn	OM Holdings Ltd

Developing projects In approvals process

Geological Province	Name	Resource	Company
Carpentaria Basin	Winchelsea	18.9 Mt @ 24.0 % Mn (From Draft EIS)	Winchelsea Mining Pty Ltd

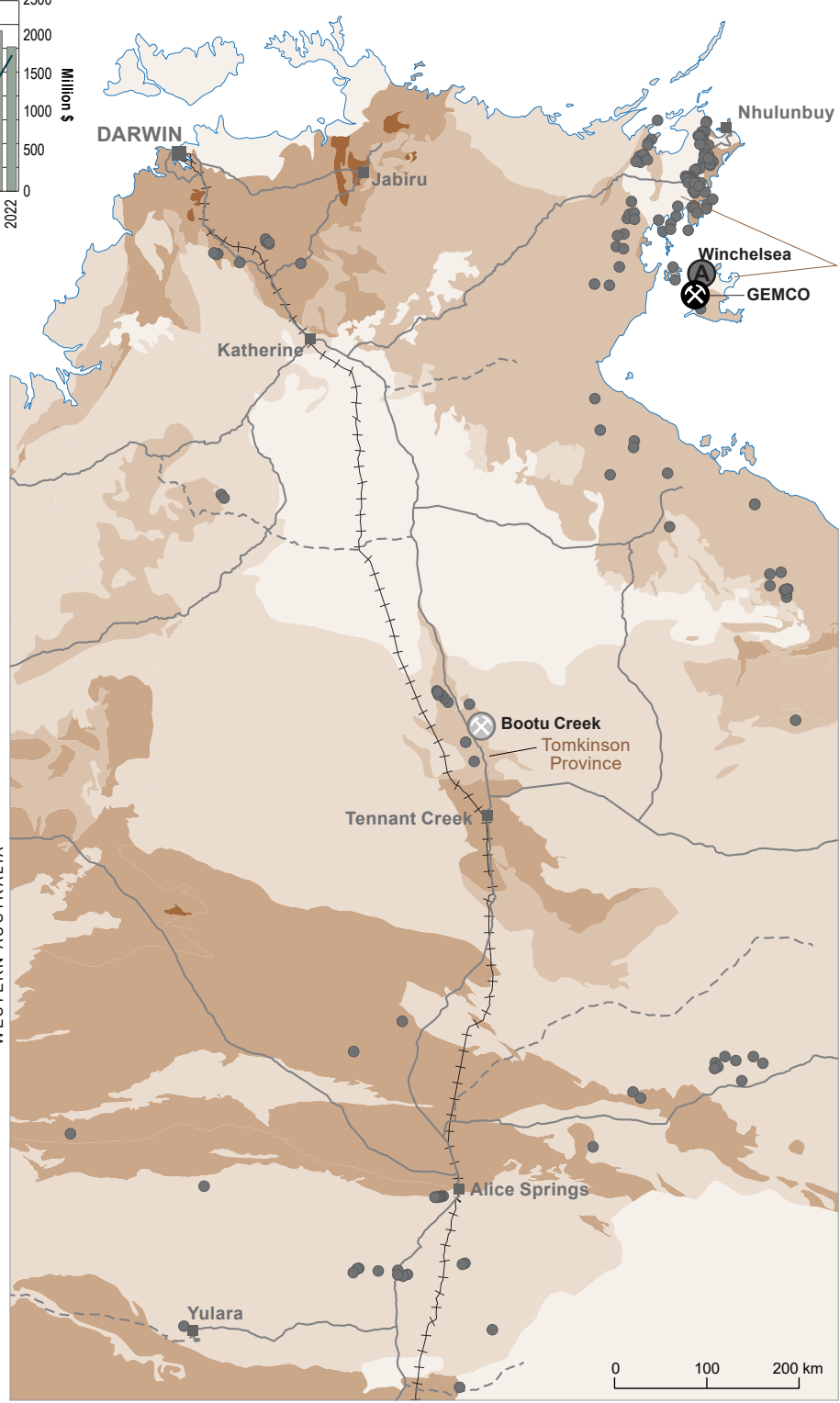
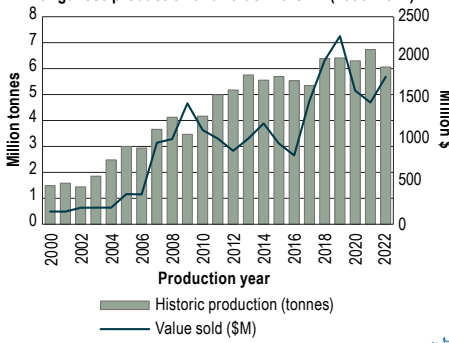



Wedge-shaped claystone lens along northern wall of Quarry F1, Groote Eylandt.
Reference: Northern Territory Geological Survey, Report 13.


Simplified geology of Groote Eylandt.
Reference: Northern Territory Geological Survey, Report 13.


Manganese in Australia's Northern Territory

Manganese production and value in the NT (2000–2022)




Total production
 153 million tonnes











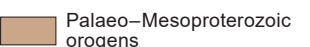


2023–24 production
 3.9 million tonnes


Remaining JORC resources
 > 135 million tonnes of manganese ore


Value of production in 2023–24
 \$993 million


Production ranking in Australia
 1st

+++ railway — road - - - minor road ■ locality

 operating mine
  care and maintenance
  in approvals process
  under feasibility
  JORC resource
  prospect
  manganese occurrence
 Mesozoic–Cenozoic
  Neoproterozoic–Palaeozoic
  Palaeo–Mesoproterozoic basins
  Palaeo–Mesoproterozoic orogens
  Archaean

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