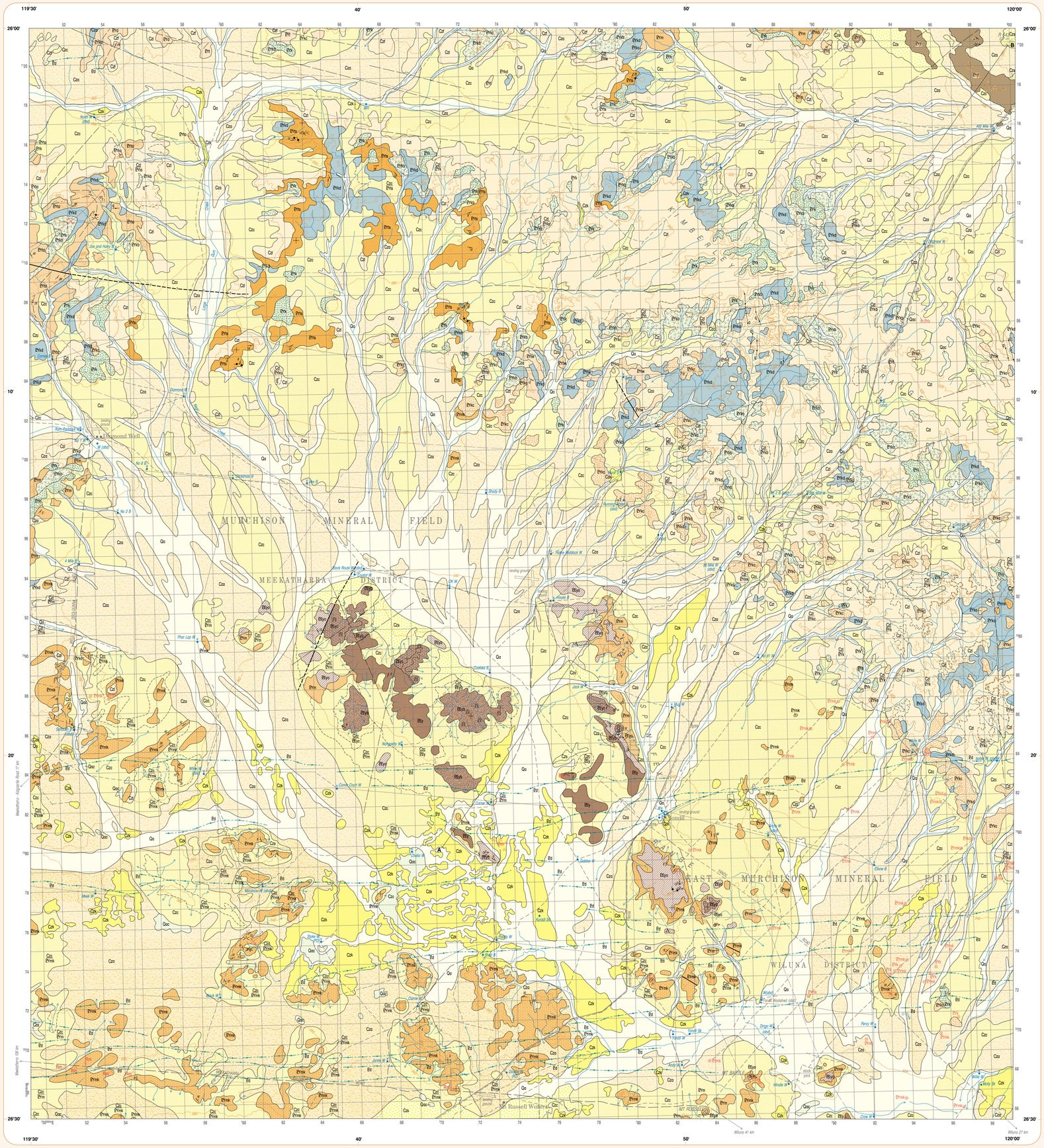
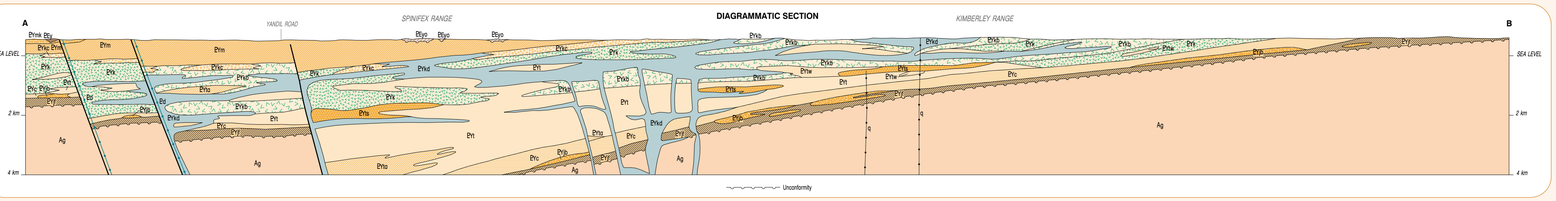
MOUNT BARTLE

AUSTRALIA 1 : 100 000 GEOLOGICAL SERIES | **GEOLOGICAL SURVEY OF WESTERN AUSTRALIA** | **SHEET 2845**



DIAGRAMMATIC SECTION



PHANEROZOIC — CAINOZOIC — QUATERNARY

- Qa — Alluvium—sand and silt in channels and floodplains
- Qac — Clay and silt in claypans

- Czo — Sheetwash deposits—ferruginous clay, silt, and sand as extensive fans
- Czc — Colluvium—gravel, sand, and silt as scree and sheetwash
- Czf — Ferruginized rubble and colluvium—dominantly ferruginized pisolites and nodules, ferruginized rock and ironstone rubble; degraded lateritic duricrust
- Czk — Calcrete
- Czl — Lateritic deposits—nodular and pisolitic laterite, and associated debris
- Czli — Ironstone duricrust; massive and rubbly
- Czs — Sandplain deposits—unconsolidated sand; minor silt and clay; includes low, vegetated dunes
- Cz — Silcrete

- q — Quartz veins
- Bd — Dolerite dykes; interpreted from aeromagnetic data

PROTEROZOIC

Earaheedy Group — EARAHEEDY BASIN

- Bby — **YELMA FORMATION:** laminated dolomitic siltstone and shale, locally graded; minor dolomite lenses, stromatolites, and chert bands
- Bbyc — Chert and chert breccia after carbonate, stromatolites, and argillite
- Bbyo — Stromatolitic dolomite; minor argillaceous and chert bands
- Bbya — Cross-stratified quartz sandstone with basal chert and quartz conglomerate; minor argillite and dolomite

Yerrida Group — YERRIDA BASIN

Manugong Subgroup

- Bym — **MARALOOU FORMATION:** argillaceous dolomitic limestone and interbedded siltstone; minor thin bedded limestone and dolomite
- Bymx — Dolomitic and calcareous siltstone with layers of disseminated iron-rich concretions; minor quartz arenite and quartz wacke
- Bymc — **Bortle Member:** chert, chert breccia, laminated chert, and chertified sedimentary rock; locally with pseudomorphs of anhydrite crystals and nodules; minor basaltic lava
- Bym — **KILLARA FORMATION:** undivided mafic rocks (cowcul and interbedded with THADUNA and DOOLGUNNA FORMATIONS)
- Bymd — Dolerite and gabbro, mainly in sills; minor disseminated sulfides (hypabyssal equivalent of Bym)
- Bymh — Basaltic lava; locally amygdaloidal; minor norite/gabbro layers

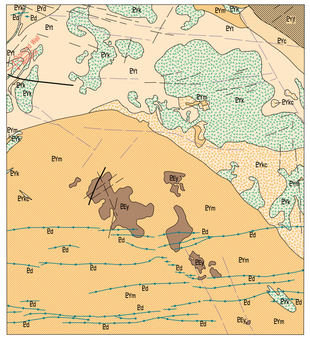
Windplain Subgroup

- Byn — **THADUNA FORMATION:** undifferentiated siliciclastic sedimentary rocks and chert (cowcul and interbedded with KILLARA and DOOLGUNNA FORMATIONS)
- Bynw — Litharenite and lithic wacke; locally mica-bearing and feldspathic; minor conglomerate
- Bynb — Quartzose to feldspathic litharenite and lithic wacke, with shale and siltstone; minor conglomerate
- Bynq — Litharenite, ferruginous quartz arenite, quartz wacke, and shale
- Byd — **DOOLGUNNA FORMATION:** orkasic sandstone; minor subarkosic to quartzose sandstone, granule conglomerate, and shale in upward thinning turbidite cycles (cowcul and interbedded with KILLARA and THADUNA FORMATIONS)
- Byc — **JOHNSON CAIRN FORMATION:** shale and siltstone, partly carbonaceous and dolomitic; minor quartz arenite, wacke, dolomite lenses, and disseminated lenses of iron-rich concretions
- Byj — **JUDERINA FORMATION:** undivided siliciclastic and carbonate sedimentary rock (not on map)
- Byjb — **Bubble Member:** laminated stromatolitic chert, stromatolitic carbonate beds, and dolostone (section only)
- Byjf — **Finlayson Member:** quartz arenite; planar bedded on cross-stratified minor pebble conglomerate and intercalated siltstone

ARCHAEAN — YILGARN CRATON

- Ag — Undivided granitoid rock and greenstone (section only)

SIMPLIFIED GEOLOGY



- Bd — Dolerite dyke
- Earaheedy Group: Bby — Yelma Formation (EARAHEEDY BASIN)
- Yerrida Group (YERRIDA BASIN): Bym — Maroloou Formation; Bymc — Bortle Member; Bymx — Killara Formation; Byn — Thaduna Formation; Byd — Doolgunna Formation; Byc — Johnson Cairn Formation; Byj — Juderina Formation; Byjf — Finlayson Member

SCALE 1:500000

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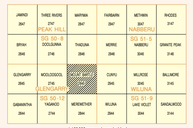
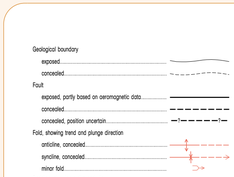


1:100000 maps shown in black
1:250000 maps shown in brown

SCALE 1:100 000

TRANSVERSE MERCATOR PROJECTION
Grid lines indicate 1000 metre interval of the Australian Map Grid Zone 50

DEPARTMENT OF MINERALS AND ENERGY — K.R. PERRY, DIRECTOR GENERAL
GOVERNMENT OF WESTERN AUSTRALIA — HON. KEVIN MINSON, M.L.A., MINISTER FOR MINES
GEOLOGICAL SURVEY OF WESTERN AUSTRALIA — PIETRO GUI, DIRECTOR



- Geological boundary — exposed; concealed
- Fault — exposed, partly based on aeromagnetic data; concealed; concealed, position uncertain
- Fold, showing trend and plunge direction — anticline, concealed; syncline, concealed; minor fold
- Bedding, showing strike and dip — inclined; horizontal; strike and dip estimated from aerial photography; trend
- Direction of movement of sediment-bearing currents — sense known: x—cross-stratification; sense not known: f—flute, s—scour
- Fracture or joint, showing strike and dip — vertical
- Stromatolite locality
- Alcyhota lineament, unspecified
- Aeromagnetic lineament
- Formed road; Track
- Fence, generally with track
- Homestead — Permo
- Building
- Microwave repeater station
- Horizontal control, minor
- Breakaway
- Contour line, 20 metre interval — 120
- Watercourse, ephemeral
- Waterhole — WH
- Rockhole — RH
- Spring — S
- Soak — Sk
- Windpump
- Tank — T
- Bore — B
- Well — W
- Abandoned — (dbd)
- Position doubtful — (PD)
- Mineral field boundary
- Quarry
- Mineral exploration drill hole, showing subsurface data — Dr1
- Mineral occurrence — Building stone — Bs; Road materials — Rm

True north, grid north and magnetic north are shown diagrammatically for the centre of the map. Magnetic north is correct for 1990 and moves westerly by about 0.1° in 6 years.

Geology by P.R. Dawes and G. Le Blanc Smith 1994
Revised by P.R. Dawes, S.A. Occhipinti, and F. Pirajno 1996

Edited by D. Ferdinando and G. Loon

Cartography by C. Bartlett, K. Greenberg, and P. Taylor

Topography from the Department of Land Administration Sheet SG 50-12, 2845, with modifications from geological field survey

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This map is also available in digital form

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MOUNT BARTLE

SHEET 2845 **FIRST EDITION 1996**

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