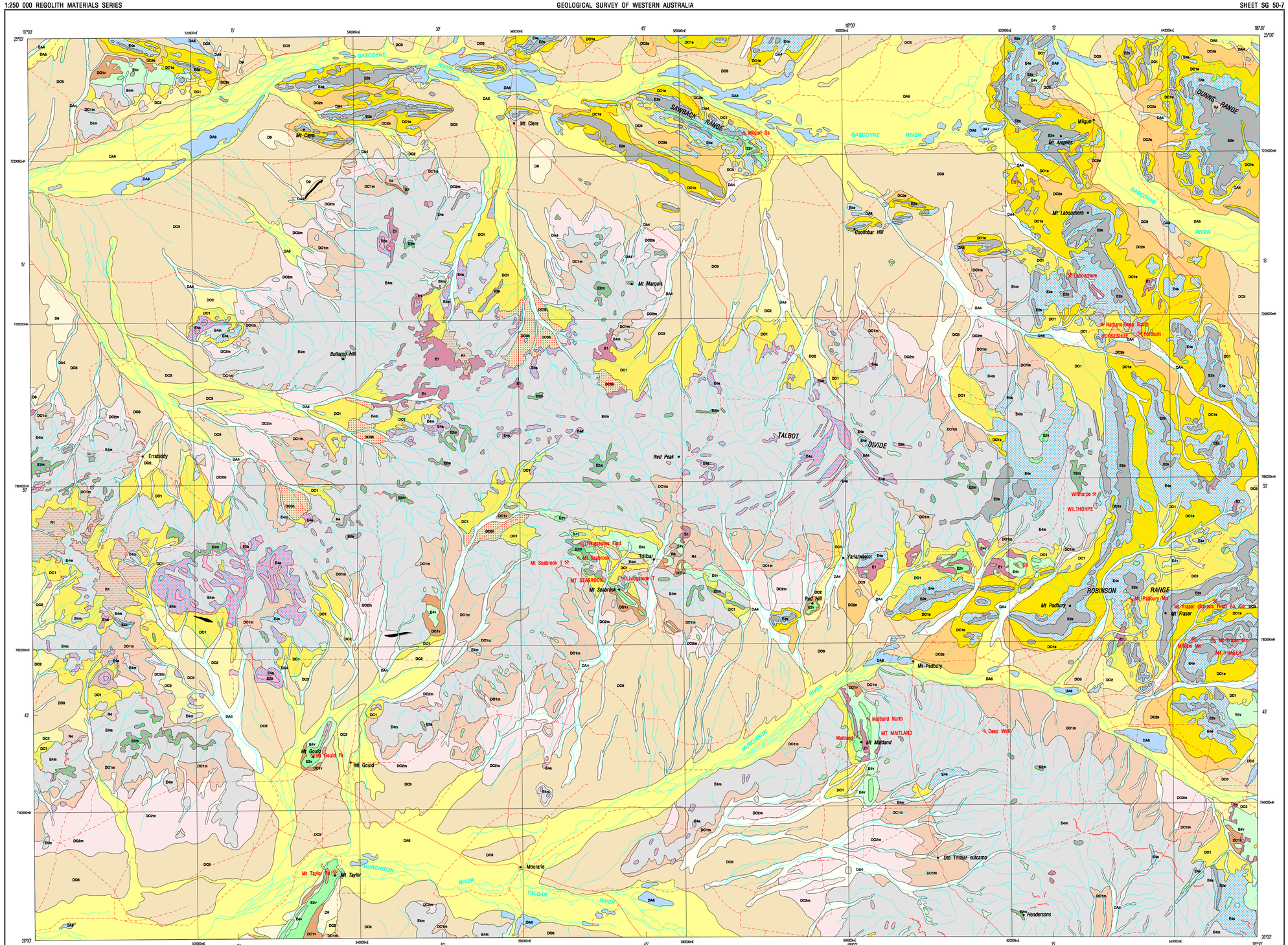
ROBINSON RANGE

1:250 000 REGOLITH MATERIALS SERIES

GEOLOGICAL SURVEY OF WESTERN AUSTRALIA

SHEET SG 50-7



REFERENCE

RELICT REGIME

- R1 Ferruginous pisolites and nodules
- R2 Iron-rich duricrust forming remnant land surfaces
- R3 Silcrete (commonly weakly ferruginized) and silicified rock
- R4 Quartz-rich sand overlying presumed or known R1-R3 material

EROSIONAL REGIME

- E1 Mottled zone and saprolite
- E2v Outcrop of saprock and bedrock; areas of subcrop with locally derived sandy clays; coarse (boudinary) lag may be present adjacent to prominent ranges; derived from greenstones and other mafic rocks
- E2s As E2v but derived from sedimentary rocks
- E2m As E2v but derived from metamorphic rocks, predominantly granitic gneiss
- E2a As E2v but derived from amphibolite
- E4v Lag of locally derived ferruginous and/or lithic fragments; fieldspar in a sandy clay matrix associated with actively eroding outcrop/subcrop; derived from greenstones and other mafic rocks
- E4s As E4v but derived from sedimentary rocks
- E4m As E4v but derived from metamorphic rocks, predominantly granitic gneiss
- E4a As E4v but derived from amphibolite
- q Quartz vein

DEPOSITIONAL REGIME

DOMINANTLY COLLUVIAL

- DC1 Medium- to coarse-grained detritus, mainly of lithic or ferruginized lithic clasts (most >35 mm) in colluvium with a sand or sandy clay matrix
- DC1v DC1 derived from greenstones
- DC1s DC1 derived from sedimentary rocks
- DC1m DC1 derived from metamorphic rocks, predominantly granitic gneiss
- DC1a DC1 derived from amphibolite
- DC2 Fine- to medium-grained detritus (clasts 4-25 mm) mainly of lithic or ferruginized lithic origin, in a red sandy clay colluvial matrix, or quartz in a sandy clay matrix
- DC2s DC2 derived mainly from sedimentary rocks
- DC2m DC2 derived mainly from metamorphic rocks, predominantly granitic gneiss
- DC3 Sand- and clay-dominated colluvium or sheetwash (+/- feldspar); merges into alluvial plains (DA5)
- DC3h Consolidated colluvium (hardpan) with a ferruginous or silica-rich cement; reddish brown and poorly bedded

DOMINANTLY ALLUVIAL

- DA4 Gravelly sands and sandy clays of active alluvial channels with mixtures of lateritic, non-lateritic, and variably altered lithic fragments
- DA5 Sand- or clay-rich alluvium and colluvium on broad drainage floors, including overbank alluvial deposits and terraces; includes non-saline claypans; calcrete fragments
- DA7 Saline clays and sandy clays of playa lakes; commonly lacking vegetation
- DA8 Extensive and continuous calcrete outcrop in broad drainage floors (valley calcrete)
- D9 Sandplain, aolian in origin; forms dunes and thin sheets

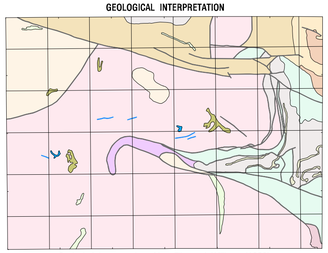
SYMBOLS

- Regolith boundary
- Breakaway
- Minor road
- Track
- Watercourse, ephemeral
- Milgun — Homestead
- Mt Padbury — Locality
- MT FRASER — Mining centre
- Fortnum — Major mine (Gold, unless otherwise indicated)
- Labouchere — Mine
- Wilthorpe — Minor mine
- Maitland — Prospect

Mineral occurrence

- Au Gold
- Cu Copper
- Fe Iron ore
- Gs Variscite
- Mn Manganese
- T Talc

GEOLOGICAL INTERPRETATION



Geological interpretation: After Elias and Williams (1980); Myers, Occhipinti, and Swager (1996, pers. comm.)

PROTEROZOIC

- Bangemall Group — Quartz arenite; minor wacke, siltstone, conglomerate, shale, and dolomite
- Shale and siltstone; minor chert, claystone, dolomite, and sandstone
- Chert, arenite, and siltstone; minor dolomite and shale
- Granite
- Padbury Group — Wacke, siltstone, conglomerate, shale, quartz arenite, and calcareous sedimentary rocks
- Granular and banded iron-formation, and hematitic shale
- Bryah Group — Sedimentary rocks, mafic and ultramafic volcanic and intrusive rocks, and banded iron-formation
- Yerrida Group — Quartz arenite, shale, and quartz-pebble conglomerate
- Trillbar Complex — Mafic to ultramafic volcanic and plutonic rocks

ARCHAEAN

- Volcanic and sedimentary rocks (includes greenstones)
- Granite and granitic gneiss
- Banded iron-formation
- Amphibolite
- Geological boundary
- Major fault or shear

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Edited by D. Ferdinando and G. Loan

Cartography by G. Jose and D. Ladbrook

Topography from Australian Surveying and Land Information Group Sheet SG 50-7 and roads modified from geological field survey (1996)

This map is also available in digital form

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GEOLOGICAL SURVEY OF WESTERN AUSTRALIA
PIETRO GUJ, DIRECTOR

SCALE 1:250 000

5000 0 5 10 15 20 25 50
METRES KILOMETRES

TRANSVERSE MERCATOR PROJECTION
Grid lines indicate 20 000 metre interval of the Australian Map Grid Zone 50

Compiled by J.J. Bradley and A.J. Sanders (GSWA)

Field observations by J.J. Bradley (GSWA), P. Penna, E. Spartali, and G. Tolland (Geochemex Australia), 1995

The recommended reference for this map is: BRADLEY, J.J., and SANDERS, A.J., 1997, Robinson Range, W.A. sheet SG 50-7; Western Australia Geological Survey, 1:250 000 Regolith Materials Series, Plate 1

REGOLITH MATERIALS SERIES

ROBINSON RANGE

SHEET SG 50-7

FIRST EDITION 1997

WARNING: Inks are water soluble and will fade with prolonged exposure to light