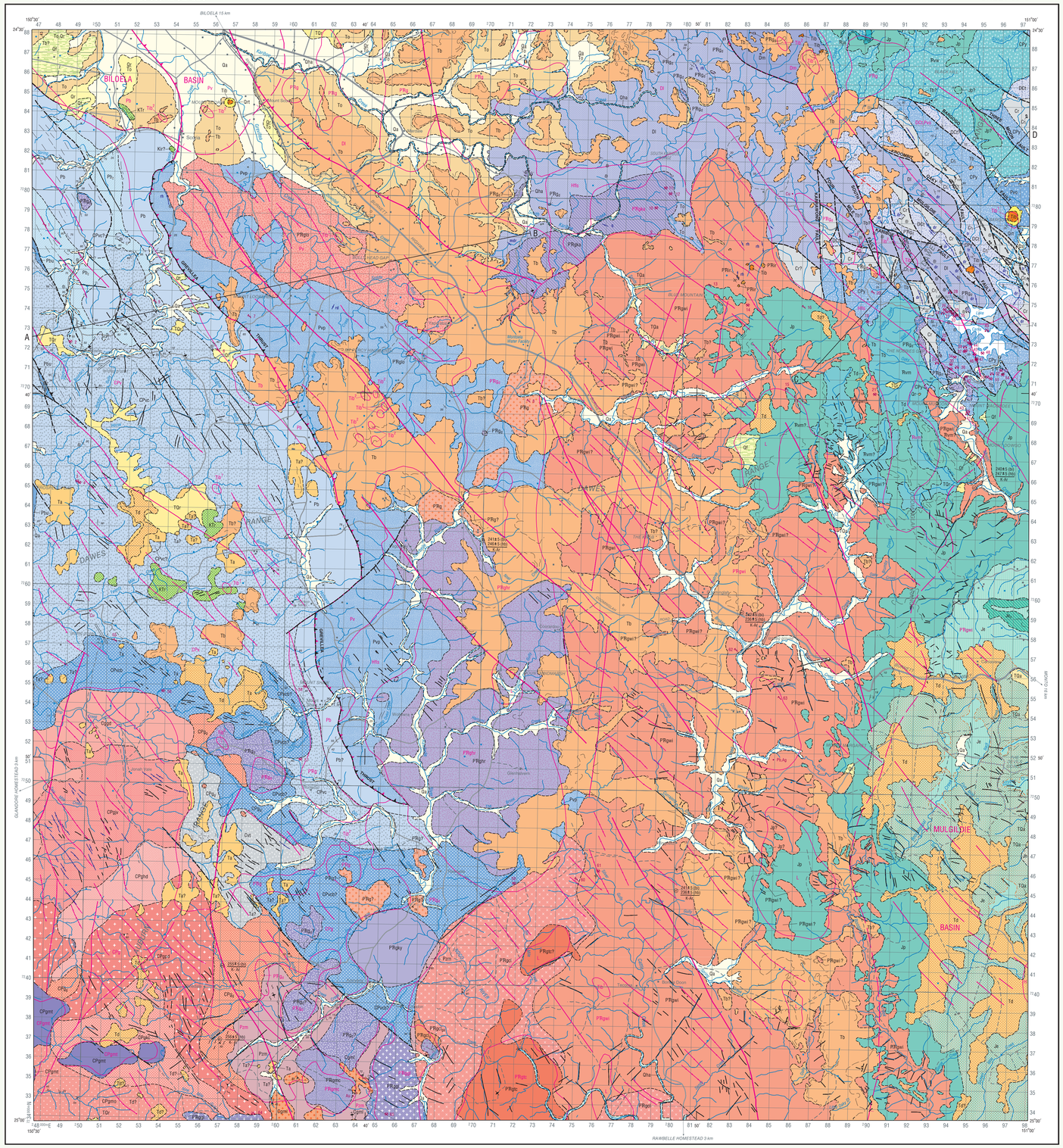
SCORIA

QUEENSLAND

AUSTRALIA 1:100 000 GEOLOGICAL SERIES

SHEET 9048



QUATERNARY

- **Qha** — *Clay, silt, sand, gravel: active stream channel and low terraces*
- **Qa** — *Clay, silt, sand, gravel: flood-plain alluvium*
- **Qf** — *Sand, gravel, clay: floodout sheets and small fans*
- **Qr** — *Clay, silt, sand, gravel and soil: colluvial and residual deposits*
- **Qrt** — *Gravel, sand and mud: talus and steep colluvial slopes grading down to lower-gradient alluvial fans and outwash deposits*

TERTIARY - QUATERNARY

- **TQa** — *Sand, mud and gravel: high-level alluvium and colluvium*
- **TQr** — *Clay, silt, sand, gravel and soil: colluvial and residual deposits*

TERTIARY

- *Deep weathering profile; mottled leached and kaolinised rock*
- **Td** — *Indurated and ferruginised top of deep weathering profiles, locally including ferricrete*
- **Ta** — *Sandy claystone, clayey sandstone, minor gravel beds: old alluvium; locally some interbedded basalt*
- **Tb** — *Basalt; moderate magnetic domain*
- **Tbr** — *Basalt plug; Tb^1- high to very high magnetic domain; Tb^2- very low magnetic domain (reversely magnetised)*
- **Bilo Formation — To** — *Mudstone, siltstone, oil shale, carbonaceous mudstone and sandstone; minor lignite, coal and limestone*

CRETACEOUS - TERTIARY

- **Krf** — *Extrusive rhyolite*
- **Krr** — *Trachyte, rhyolite, probably intrusive*

JURASSIC

- **Hutton Sandstone — Jh** — *Sandstone, siltstone, mudstone, minor conglomerate*
- **Evergreen Formation — Je** — *Labile and sublabile, fine to medium-grained sandstone, carbonaceous mudstone, siltstone and minor coal; local oolitic ironstone*
- **Evergreen Formation — Jeo** — *Oolitic ironstone, sandstone, siltstone*
- **Precipice Sandstone — Jp** — *Thick-bedded, cross-bedded, fine to coarse-grained, pebbly quartzose sandstone and minor lithic sublabile sandstone, siltstone and mudstone*

TRIASSIC - JURASSIC

- **Annie Creek beds — RJa** — *Conglomerate, lithic sandstone, grey siltstone and carbonaceous shale*

EARLY TRIASSIC

- **Muncon Volcanics — Rvm** — *Basalt to andesite, volcaniclastic pebble conglomerate, sandstone, siltstone, volcanic breccia and tuff; moderate to high magnetic domain*
- **Winterbourne Volcanics — Rvw** — *Rhyolite, trachyte, ignimbrite, rhyolitic breccia, tuff, minor basalt*

LATE PERMIAN - EARLY TRIASSIC

- **PRg** — *Granite, granodiorite, diorite, quartz syenite, quartz monzonite; moderate magnetic domain*
- **PRgi** — *Hornblende diorite, biotite-hornblende quartz diorite, monzodiorite and monzonite; moderate to high magnetic domain*
- **PRr** — *Porphyritic rhyolite*
- **Lookerbie Igneous Complex — PRglo** — *Biotite-hornblende tonalite, granodiorite, quartz diorite and abundant microdiorite and andesite dykes*
- **Karlboe Layered Gabbro — PRgka** — *Layered gabbro, diorite, tonalite and minor hornblendite; high magnetic domain*
- **Glencoe Gabbro — PRgg** — *Mainly fine to medium-grained hornblende gabbro and biotite-hornblende diorite; minor quartz monzonite, tonalite and pegmatite*
- **Kooyong Gabbro — PRgky** — *Medium-grained hornblende gabbro*
- **Marvel Creek Gabbro — PRgmc** — *Fine to medium-grained olivine, orthopyroxene gabbro, leucogabbro and hornblende diorite; very low magnetic domain (reversely magnetised)*
- **Colodon Granite — PRgcd** — *Pink to grey, locally foliated, equigranular to porphyritic, medium to coarse-grained hornblende-biotite to biotite granite and granodiorite; locally numerous mafic xenoliths; moderate magnetic domain*
- **Colodon Granite — PRgcdL** — *Grey to pink foliated biotite granite with pink K-feldspar phenocrysts*
- **Colodon Granite — PRgcdG** — *Gabbro*
- **Harrami Igneous Complex — PRghr** — *Light to dark grey, medium-grained, biotite monzodiorite and light grey, fine to medium-grained biotite granite; locally mingled with dark grey, medium-grained hornblende gabbro; moderate to high magnetic domain*
- **Tecoma Granite — PRgtc** — *Pale grey, fine to medium-grained biotite granite to granodiorite; moderate to high magnetic domain*
- **Wingfield Granite — PRgwi** — *Typically pale grey and pink, porphyritic hornblende-biotite granite with large pink K-feldspar phenocrysts up to 4 cm; locally pale grey to pink, biotite-hornblende granite with numerous mafic xenoliths; moderate magnetic domain*

PERMIAN

Black Creek Group

- **Pb** — *Predominantly massive, cleaved mudstone and siltstone (commonly with concretions), minor sandstone; low magnetic domain*
- **Pb_2** — *Cleaved mudstone, siltstone, volcaniclithic sandstone and locally abundant siliceous siltstone; crinoidal limestone*
- **Buffel Formation — Pbu** — *Lithic sandstone, conglomerate, brecciа, fossiliferous limestone, siltstone, mudstone*
- **Owl Gully Volcanics — Pvo** — *Andesitic lava, lithic sandstone, siltstone; low to moderate magnetic domain*
- **Yaparaba Volcanics — Pvp** — *Basaltic to dacitic lava and volcaniclastic rocks, rhyolitic ignimbrite and some lithic sandstone and conglomerate*
- **Pv** — *Undivided volcanic rocks; moderate magnetic domain*

LATE CARBONIFEROUS - EARLY PERMIAN

- **CPv** — *Undivided mafic to felsic volcanic rocks; low to moderate magnetic domain*
- **Camboon Volcanics — CPvc** — *Basaltic to andesitic lava and equivalent volcaniclastic rocks; subordinate felsic ignimbrite and other volcaniclastic rocks and minor lava; commonly deformed to schistose equivalents in the Gogango Deformed Zone*
- **Mount Bulgi Conglomerate Member — CPvcb** — *Polymictic conglomerate and subordinate sandstone containing mainly felsic volcanic clasts and locally granite clasts*
- **Youlamble Conglomerate — CPy** — *Granule to boulder polymictic conglomerate commonly with abundant granite and rhyolite clasts, felsic volcaniclastic sandstone, tuffaceous and carbonaceous siltstone and mudstone, dacitic to rhyolitic ignimbrite, brecciа, minor coal*
- **CPgy** — *Pink and grey, medium-grained, hornblende-biotite and biotite granite, minor granodiorite*
- **Montour Gabbro — CPgmt** — *Dark green to dark grey, fine to medium-grained hornblende gabbro; moderate magnetic domain*
- **CPg** — *Granite, granodiorite, diorite; moderate magnetic domain*
- **Hildura Granodiorite — CPghd** — *White to grey, medium-grained biotite granodiorite*
- **Jonah Vale Granite — CPgjv** — *Pale pink to white, medium to coarse-grained, biotite granite*
- **Keen Creek Granite — CPgkc** — *Grey, fine to medium-grained, biotite granite*
- **Moocoorooba Granite — CPgmo** — *Pale grey to pink, medium-grained, hornblende-biotite granite to granodiorite*
- **Pinedale Granite — CPgpd** — *Pink to grey, porphyritic biotite granite with large K-feldspar phenocrysts*

LATE CARBONIFEROUS

- **Glandore Granodiorite — Cggd** — *Grey to pinkish, medium-grained, biotite-hornblende granite, granodiorite or monzonite*
- **Mount Clairvoyant Granite — Cgmc** — *Foliated, medium-grained porphyritic biotite granite*
- **Torsdale Volcanics — Cvt** — *Dacitic to rhyolitic ignimbrite and other volcaniclastic rocks and lava; subordinate andesitic rocks; volcaniclithic conglomerate and sandstone*

EARLY CARBONIFEROUS

- **Rockhampton Group — Cr** — *Dark grey mudstone, siltstone, felsic volcaniclastic sandstone, polymictic conglomerate, coal-bearing sandstone and conglomerate with mudstone rip-up clasts; oolitic and pisolitic limestone and minor skeletal limestone; rare rhyolitic ignimbrite*
- **Crl** — *Oolitic limestone, calcareous sandstone*

LATE DEVONIAN - EARLY CARBONIFEROUS

- **Three Moon Conglomerate — DCt** — *Green-grey to purple, granule to cobble andesitic to basaltic polymictic conglomerate, lithofeldspathic to feldspatholithic sandstone, siltstone, mudstone, andesite, minor felsic tuff, fossiliferous limestone; rare basaltic pillow lava and hyaloclastite; low to moderate magnetic domain*
- **Lochenbar Formation — Dl** — *Green-grey to purple granule to cobble andesitic breccia and lesser conglomerate, fine to medium-grained feldspatholithic sandstone, fine to medium locally amygdaloidal locally porphyritic andesite, siltstone; low to moderate magnetic domain*

MIDDLE DEVONIAN

- **Marble Waterhole beds — Dm** — *Granule to cobble andesitic breccia, fine to medium quartz-bearing lithofeldspathic sandstone, siltstone, minor felsic ignimbrite; granule to pebble polymictic limestone-bearing breccia; locally porphyritic and amygdaloidal andesite; some limestone; low to moderate magnetic domain*

PALAEOZOIC

- **Pzm** — *Gneiss, mica schist, metagabbro and amphibolite and calc-silicate rocks; low magnetic domain*
- **H** — *Unidentified high magnetic domain*
- **L** — *Unidentified low magnetic domain*

GEOLOGICAL SYMBOLS

- *Geological boundary*
- *Weathering boundary*
- *Fault*
- *Thrust fault, triangles pointing in direction of fault dip*
- *Wide shear zone*
- **dr** — *Dyke or vein; dr - diorite, mdr - microdiorite, q - quartz, rd - rhyodacite, rh - rhyolite, tr - trachyte*

Where location of boundaries, faults and folds is approximate, line is broken; where inferred queried; where concealed, boundaries and folds are dotted, faults are shown by short dashes

- *Strike and dip of strata*
- *Strike and dip of strata, facing not known*
- *Vertical strata*
- *Trend line*
- *Lineament* (Airphoto interpretation)
- *Joint pattern* (Airphoto interpretation)
- *Strike and dip of cleavage*
- *Vertical cleavage*
- *Strike and dip of cleavage and plunge of mineral elongation*
- *Strike and dip of flow banding/platy flow structure*
- *Vertical flow banding/platy flow structure*
- *Strike and dip of foliation*
- *Strike and dip of first generation foliation*
- *Strike and dip of second generation foliation*
- *Vertical foliation*
- *Vertical first generation foliation*
- *Isotopic age in millions of years*
- 250.6±5 (hb) K-Ar — *K-Ar - potassium-argon method; hb - biotite, ho - hornblende*
- *Macrofossil locality*

MAGNETIC INTERPRETATION

Magnetic interpretation is shown in magenta using standard geological linestyles. Areas labelled in magenta indicate the extent of mapped units, or anomalies associated with concealed magnetic units, interpreted from aerial magnetic data. Areas labelled 'HfIs' indicate high magnetic domains interpreted as zones of hornfels adjacent to intrusions

Boundary of main depocentre of Biloela and Mulgildie Basins

TOPOGRAPHICAL AND CULTURAL FEATURES

- *Highway*
- *Secondary road*
- *Minor road*
- *Vehicle track*
- *Railway*
- *Transmission line*
- Mount Scoria — *Homestead*
- *Building*
- *Trigonometrical station*
- *Tank or small dam*
- *Waterhole*
- *Windpump*

MINING SYMBOLS

- *Mine, abandoned*
- *Alluvial/eluvial workings, abandoned*
- *Prospect*
- *Prospect, abandoned*
- Cu — *Mineral occurrence*

Ag - *silver*, Au - *gold*, Cu - *copper*, Mo - *molybdenum*, Pb - *lead*

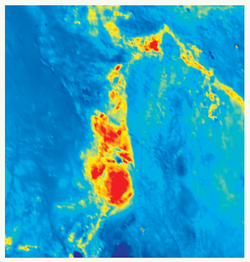
RADIOMETRIC IMAGE

Red-green-blue ternary (potassium-thorium-uranium)

The radiometric image shows the relative concentrations of the radioactive elements potassium, thorium and uranium in the topmost 20-30 cm of the Earth's surface, as measured by an airborne scanner that detects gamma radiation. The data are displayed as a composite coloured image, with potassium in red, thorium in green and uranium in blue. Rock units with different contents of these elements are clearly outlined by their different colours. Those with relatively high contents of all three elements appear white in the image, like the Wingfield Granite through the centre of the map: those with low contents (and water bodies) are dark, like the areas of Tertiary basalt overlying the Wingfield Granite in the south-east.

MAGNETIC IMAGE

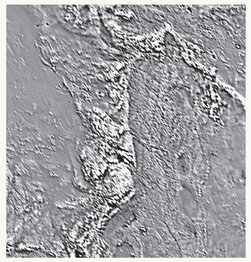
Total magnetic intensity - reduced to pole



The total magnetic intensity image shows variations in the Earth's magnetic field caused by differences in the magnetic properties of rock units in the upper crust. The magnetic response of rocks is directly related to the content of magnetic minerals, and is depicted by means of a rainbow colour scale from red (strongly magnetic like the Harrami Igneous Complex in the south-east), through yellow (moderately magnetic), to blue (weakly to non-magnetic like the Camboon Volcanics and Back Creek Group in the west). Dark blue to black areas represent rocks that have an ancient component of remanent magnetisation produced when the polarity of the Earth's magnetic field was opposite to that at present.

MAGNETIC IMAGE

First vertical derivative - reduced to pole



The first vertical derivative of the total magnetic intensity data enhances short-wavelength magnetic features relative to those with long wavelengths. This image emphasises the high gradients around the edges of magnetic bodies, and in particular highlights narrow linear magnetic features such as dykes. Variations in magnetic response are indicated by shades of grey, with the strongest magnetic units shown in white. Black areas are either reversely magnetised rock units, or a 'shadow' effect adjacent to highly magnetic features.

Images generated from aerial geophysical data available from the Department of Natural Resources and Mines, Brisbane

FIELD OBSERVATION POINTS

INDEX TO MINES AND PROSPECTS

1	---	Cu	474782	18	Denny Gully	Au	889778	34	Black Ant	Au	937722
2	Drumburlie	Cu,Au	488723	19	Stephens Lode	Au,Cu	893739	35	---	Au,Cu	938743
3	Last Chance	Cu,Au,Ag	493652	20	ZA2	Pb,Ag	896754	36	Starlight Gully	Au	939717
4	Prospect Park	Cu,Au,Ag	494651	21	Mount Prospect	Pb,Ag	897703	37	Starlight	Au	942725
5	Scoria	Cu	531744	22	Roan Colt	Au,Cu	900763	38	Moonlight Gully	Au	943728
6	Perkins	Cu	564719	23	Daylight Gully	Au	929719	39	Wild Horse Reef	Au	943725
7	Mount Lookerbie	Cu,Au	579737	24	Four Mile Creek	Au	931745	40	---	Au	943712
8	Grevillea	Cu	722696	25	Eight Mile Creek	Au	932731	41	---	Au	944694
9	Inverted Pig	Cu,Au	782780	26	---	Au	932746	42	Homeward Bound	Au	945729
10	Great Blackall	Cu,Au	785795	27	Mount Rose	Au	933745	43	---	Au	945665
11	---	Cu	789806	28	Langtry Creek	Au	935755	44	Mount Hope	Au	945729
12	Flanagans	Cu,Au	792803	29	---	Au	935745	45	Chinamans Gully	Au	948724
13	Blue Mountain	Au,Cu	813756	30	---	Au	936718	46	Erdrys Reef	Au	948721
14	---	Au	832747	31	Tellands	Ag,Pb	936716	47	Coxs Reef	Au	949721
15	Kiwi Carpet	Cu,Mo	853704	32	Victoria	Au,Cu	936744	48	Spillway	Au	952724
16	North Grevillea	Cu,Au	861746	33	Garyowen	Au	937743	49	Three Moon Creek	Au	954736
17	Pattersons Race	Au	883783								

50	The Shamrock	Au	954712	64	Rossmore Gold Mine	Au	952724	78	Rosemount	Au	919744
51	---	Au	956711	65	Rossmore Silver Mine	Ag,Cu	955333	79	Mount Morgan	Au	919733
52	Paddys Gully	Au	957714					80	Mount Morgan	Au	919723
53	Clifton Reef North	Au	961716					81	Mount Morgan	Au	919713
54	Clifton Reef	Au	962714					82	Mount Morgan	Au	919703
55	Dingley Dell	Au	514571					83	Mount Morgan	Au	919693
56	Lone Hand	Au,Ag	538546					84	Mount Morgan	Au	919683
57	Valencia	Au	608512					85	Mount Morgan	Au	919673
58	Mount Shaw	Cu,Au	610549					86	Mount Morgan	Au	919663
59	Rawbelle	Ag,Pb	718451					87	Mount Morgan	Au	919653
60	Hutton	Cu	750454					88	Mount Morgan	Au	919643
61	Ringwood	Au,Cu	761458					89	Mount Morgan	Au	919633
62	Juicy Fruit	Cu,Mo,Au	829572					90	Mount Morgan	Au	919623
63	Whitewash	Cu,Mo	851548					91	Mount Morgan	Au	919613
64	Rossmore Gold Mine	Au	588333					92	Mount Morgan	Au	919603
65	Rossmore Silver Mine	Ag,Cu	655333					93	Mount Morgan	Au	919593

The grid reference is a six figure abbreviated MGA 94 coordinate to the nearest 100 metres

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Horizontal coordinates on this map are based on the new earth-centered GEOCENTRIC DATUM OF AUSTRALIA (GDA)

To convert GDA to AGD (around 10 metre accuracy):
Geographicals (from GDA94 to AGD66/84) - Add 5.65" to latitude (S); Subtract 3.83" from longitude (E)
UTM grid coordinates (from MGA94 to AMG66/84) - Subtract 186m from Northing; Subtract 106m from Easting

INDEX TO 1:100 000 MAPS

1:250 000 maps shown in blue

BANANA 9949	BILOELA 9949	CALLIOPE 9149	MOUNT CHALMERS 9249	MERIDIAN 9349
	MONTO			MUNDUBBERA
THE DOME 9948	SCORIA 9048	MONTO 9148	ROSEDALE 9248	BUNDABERG 9348
	SG 56-03			SG 56-07
CRACOW 9947	RAWBELLE 9047	DEVIL'S 9147	MOUNT PERRY 9247	CHILDERS 9347
	MUNDUBBERA			MARYBOROUGH
	SG 56-02			SG 56-06
BUNGAWAN 9946	AUBURN 9046	MUNGUNDI 9146	GAYNDAH 9246	FRASER'S 9346
				MARYBOROUGH

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: 1976 by P.R.Murphy
: 1996-98 by L.J.Hutton, I.W.Withnall, F.Von Gnielinski, M.A.Hayward, A.D.Robertson and R.J.Bultitude
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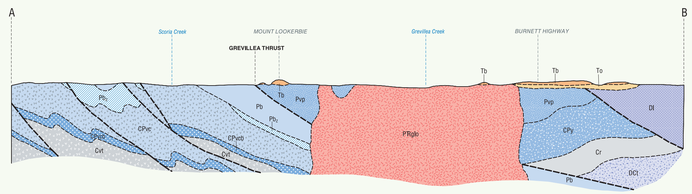
SCALE 1:100 000

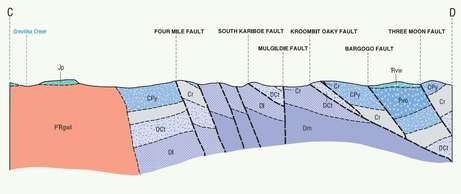
0 1 2 3 4 5 6 7 8 9 10
KILOMETRES

GREY NUMBERED LINES ARE 1 000 METRE INTERVALS OF THE MAP GRID OF AUSTRALIA 1994, ZONE 56
TRANSVERSE MERCATOR PROJECTION

SCHEMATIC SECTIONS

Quaternary units omitted





SCORIA

SHEET 9048

FIRST EDITION 2001

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