

QUATERNARY

- Qa Clay, silt, sand, gravel; flood plain alluvium
- Qal Lakes in alluvial plain; silt, clay

TERTIARY - QUATERNARY

- TQa Residual soil and colluvium, gravel and sand
- Ta Quartzose to subalkaline sandstone, claystone and conglomerate
- Tm Dark grey to black, vesicular, flow-aligned, augite-rich porphyritic basalt lavas with eoliclastic interflow deposits; moderate to high magnetic response

JURASSIC - CRETACEOUS

- JKx Thickly bedded, medium to coarse-grained quartzose sandstone and conglomerate
- Jw Fine to medium-grained feldspathic sandstone and coarse-grained quartzose sandstone
- Jm Medium to coarse-grained quartzose and quartzofeldspathic sandstone and conglomerate

PERMIAN - TRIASSIC

- PRgn Pale grey to white to buff, fine-grained, porphyritic, leucocratic biotite granite
- PRga Unexposed non-magnetic granitoid intrusion
- PRga Unexposed moderate to strongly magnetic granitoid intrusion

CARBONIFEROUS

- Cx Thick to thin bedded, volcanoclastic arenite, siltstone, mudstone and slate; local phylite; sporadic lenses of jasper, chert, limestone, mafic volcanics; rare conglomerate
- Cx Thin-bedded pink to brown jasper interlayered with subordinate argillite; locally grades into grey chert
- Cx Recrystallized, sparsely fossiliferous limestone; local limestone/basalt breccia
- Cx Mafic lava and associated pyroclastic deposits; some subvolcanic intrusives; minor chert, jasper and volcanoclastic sediment
- Cx Polymictic pebble to conglomerate and pebbly greywacke; local massive, coarse lithic grit
- Cx Strongly magnetic or magnetically altered mafic volcanics/volcanoclastics, jasper (plus minor chert) and siltstone sequences and/or associated magnetically altered strata of anomalies are Cx unless otherwise stated
- L Low magnetic response

INDEX TO MINES AND PROSPECTS

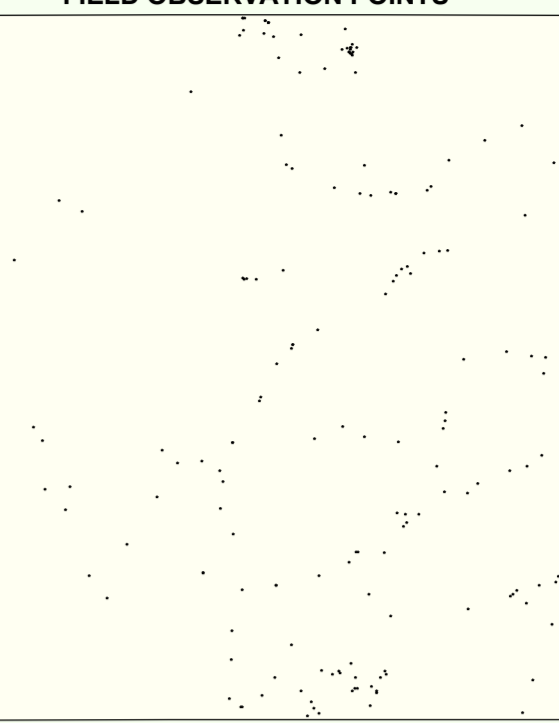
- 1 Inglewood C 11852
- 2 Brangely South C 21954
- 3 Mount Kilar C 38124
- 4 Mount Deane M 43241
- 5 Kroma Reef La M 48482
- 6 Comet Mills La 52844
- 7 Armstrongs M 53710
- 8 Wier Effect West M 54844
- 9 Wier Effect Mine M 55348

MINING SYMBOLS

- Mine
- Mine, abandoned
- Prospect
- Prospect, abandoned
- Mineral occurrence

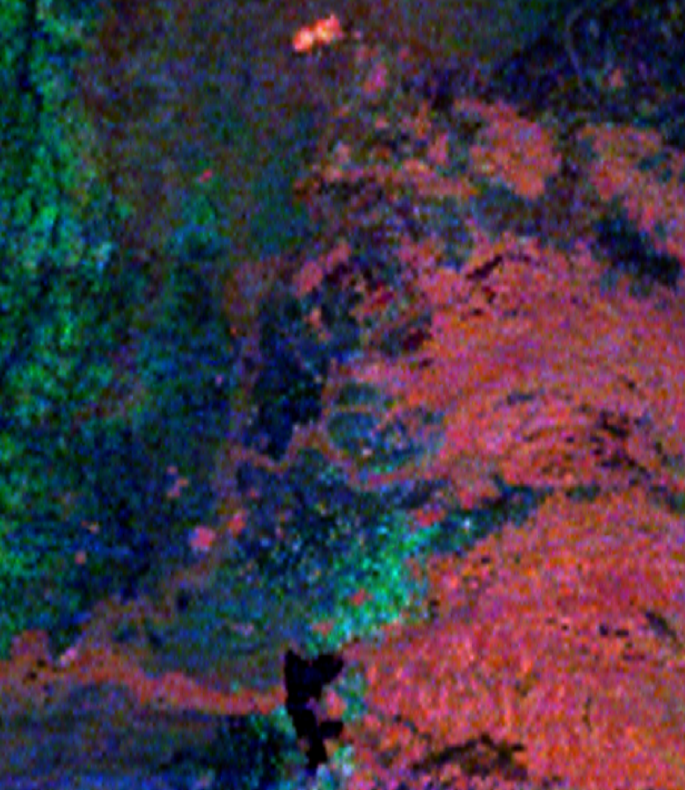
C - coal, Ls - limestone, Ma - marble, Mn - manganese

FIELD OBSERVATION POINTS



RADIOMETRIC IMAGE

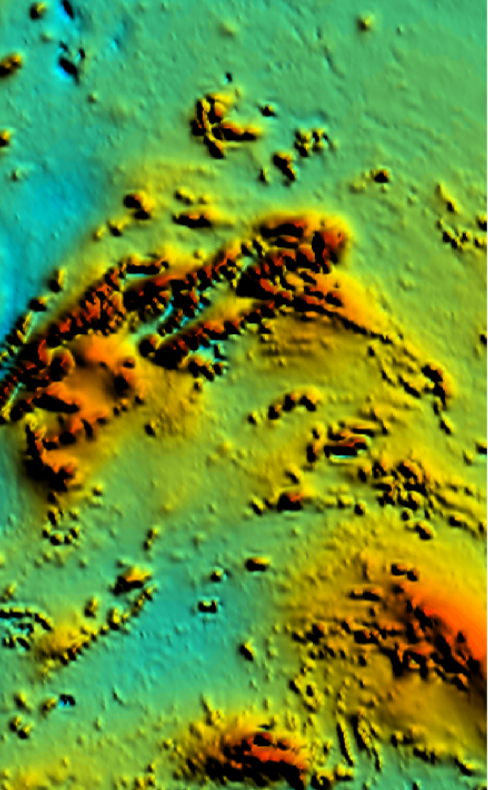
Red-green-blue ternary (potassium-thorium-uranium)



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 detector that records gamma radiation. The data are displayed as a composite colour image, with potassium in red, thorium in green and uranium in blue. Rock units with different contents of these elements are outlined by their different colours. Those with relatively high contents of potassium appear pink on the image, for example the Texas beds, those with low contents of all three elements are dark, for example the Marburg Subgroup.

MAGNETIC IMAGE

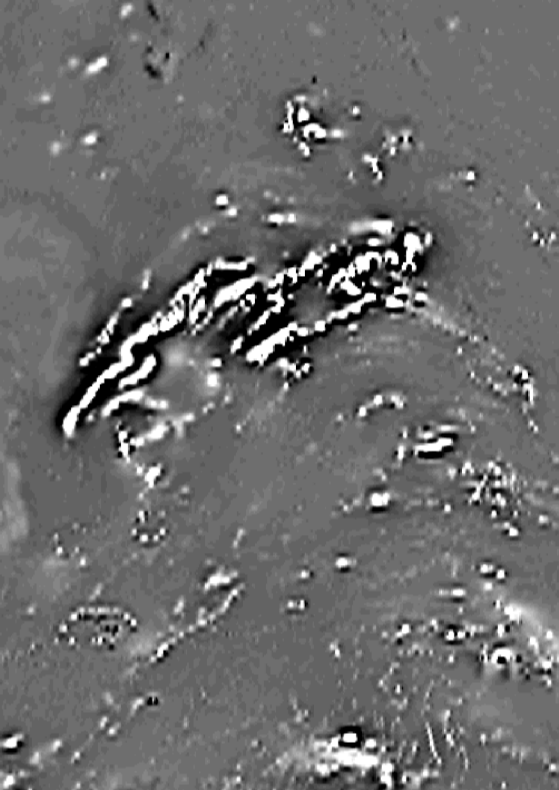
Total magnetic intensity - reduced to pole - colour draped



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), through yellow (moderately magnetic), to blue (weakly to non-magnetic). The structure has been enhanced by drawing the coloured image over a grey-scale version of the same data to which a NE-sun-angle has been applied.

MAGNETIC IMAGE

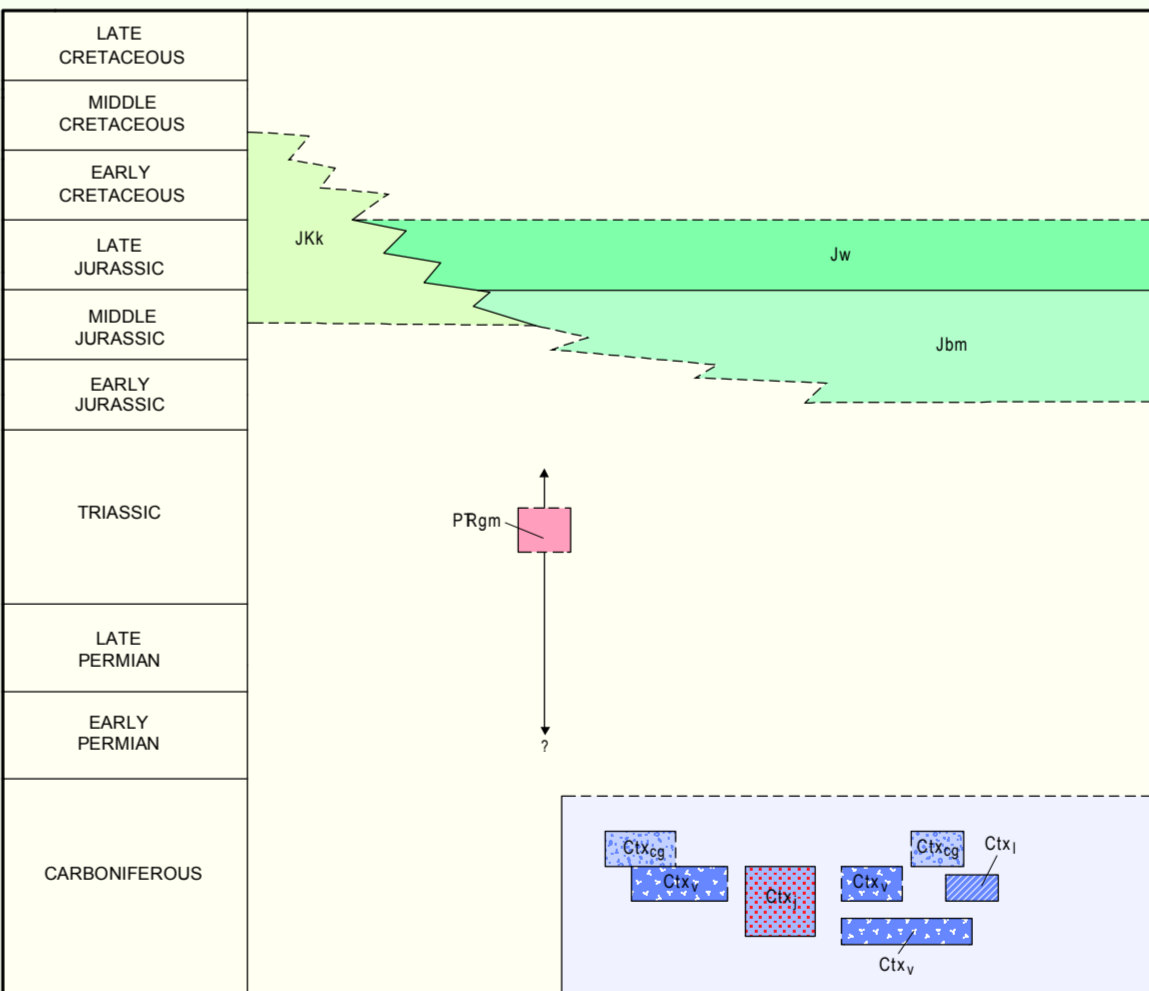
First vertical derivative - reduced to pole



The first vertical derivative of the total magnetic intensity data enhances short-wavelength magnetic features relative to those with long wavelengths. This image emphasizes the high gradients around the edges of magnetic bodies, and in particular highlights narrow linear magnetic features such as dykes.

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

CARBONIFEROUS - CRETACEOUS UNITS



EXPLANATION

- Top of stratigraphic column
- Conformable relationship
- Unit appears elsewhere in diagram
- Base of stratigraphic column
- Possible age range younger or older

In the schematic reference, rock units are shown in their stratigraphic and approximate geographic relationships to one another.

TOPOGRAPHICAL AND CULTURAL FEATURES

- Highway, route marker
- Secondary road
- Minor road
- Vehicle track
- Railway, station
- Fence
- Homestead
- Building
- Trigonometrical station

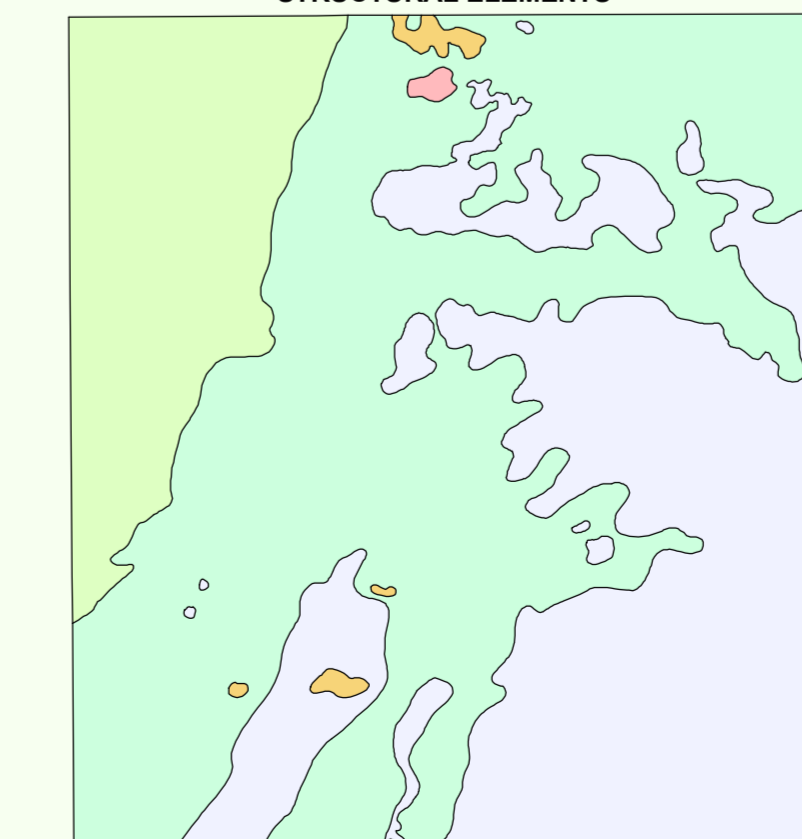
GEOLOGICAL SYMBOLS

- Geological boundary
- Fault
- Thrust fault: Triangle on older rocks
- Where location of boundaries, faults and folds is approximate, line is broken; where inferred, curved; where concealed, boundaries and folds are dotted; faults are shown by short dashes
- Strike and dip of strata, younging unknown
- Trend line
- Lineament
- Alphabetic interpretation
- Strike and dip of cleavage

MAGNETIC INTERPRETATION

Magnetic interpretation is shown in magenta using standard geological line styles. Areas labelled in magenta indicate the extent of mapped units, or anomalies associated with concealed magnetic units, interpreted from airborne magnetic data.

STRUCTURAL ELEMENTS



TERTIARY - QUATERNARY

- Main Range - Lamington Basalt Province

CRETACEOUS

- Sural Basin

JURASSIC

- Clarence - Moreton Basin

PERMIAN - TRIASSIC

- New England Batholith

CARBONIFEROUS

- Texas Subprovince

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INDEX TO 1:100 000 MAPS. Table listing map sheets and their coordinates.

Queensland Government Natural Resources and Mines logo and contact information.



Geology: 2004 by D. Purdy, P.J.T. Donchak and J. Ting (GSQ). Mineral occurrence mapping: 2000-2001 by T. Deane and P. Burrows (GSQ). Cartography by D. Purdy, P.J.T. Donchak and G.S. Pascoe. Department of Natural Resources and Mines. Printed in-house by the Department of Natural Resources and Mines.



Copies of this map may be obtained from the Department of Natural Resources and Mines, Brisbane.