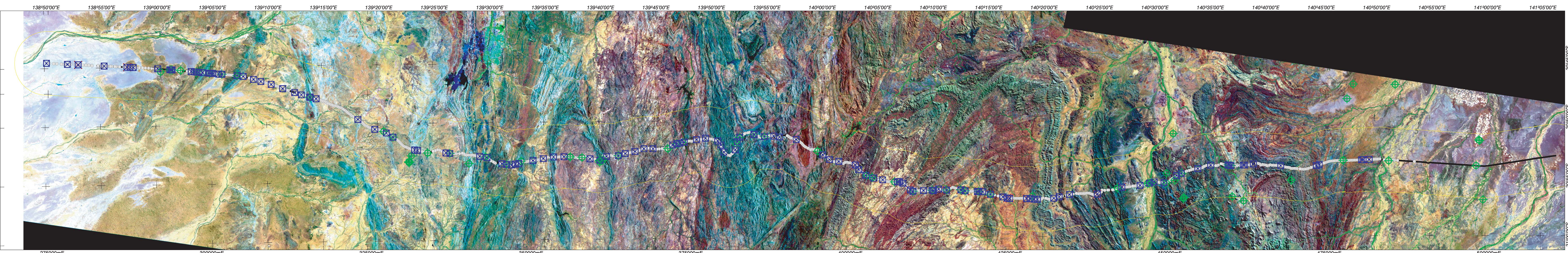


REGOLITH AND LANDFORMS OF THE MOUNT ISA GEODYNAMIC TRANSECT

APPENDIX I

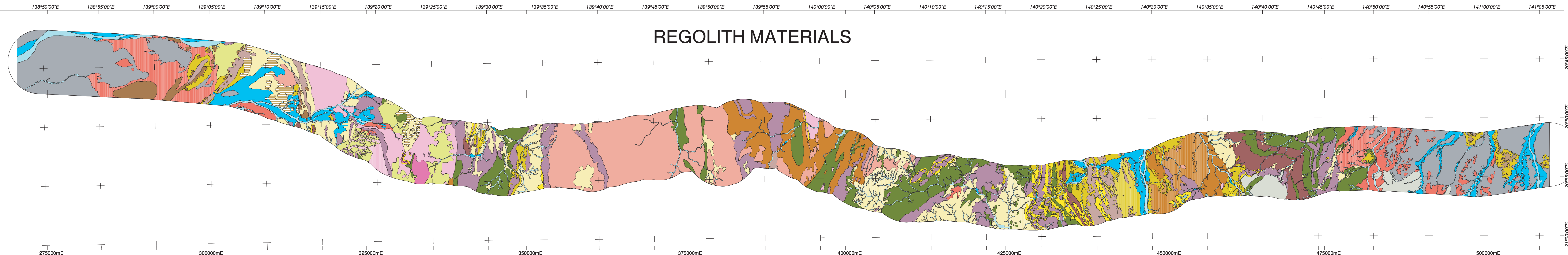
LANDSAT TM



Landsat Thematic Mapper Image:
Bands 7 (red), 4 (green), 2 (blue).

- Study area
- Sample site
- Photo site
- Geochemical analysis site
- Drillhole site
- Fiducial site

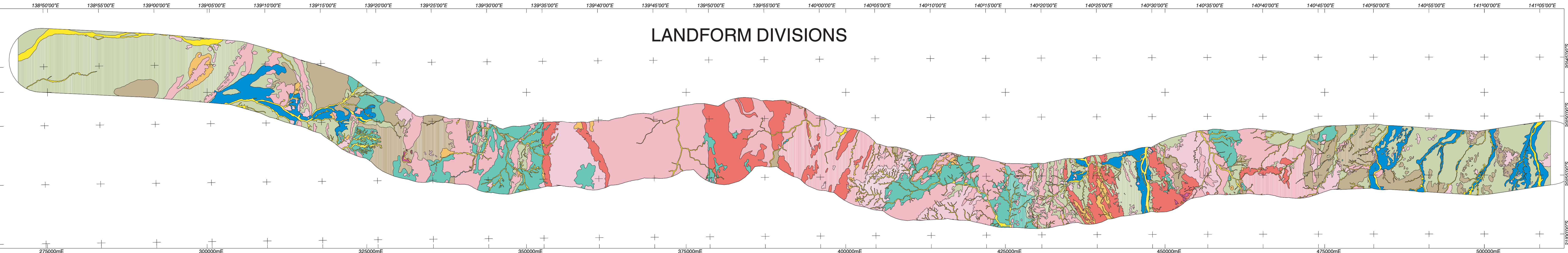
REGOLITH MATERIALS



Regolith Materials - Mount Isa Geodynamic Transect

- Alluvium**
- Gravels, sands and silts in contemporary river and stream channels.
 - Overbank sediments (old/terrace) comprising sands, silts and clays on alluvial terraces and floodplains.
 - Black/gray clay and silty (light) occurring in soils developed in poorly drained environments from fine alluvial deposits on rolling depositional plains. These soils contain minor amounts of quartz gravels and sands with ferruginous lithic fragments.
 - Ferruginous sand and gravel including quartz and other lithic (some ferruginous) fragments found on rolling depositional plains. In places the sediments have been variably indurated by iron to form a ferruginous or weakly ferruginous horizon.
- Colluvium**
- Quartz-rich colluvial gravels with apatitic fragments in a ferruginous sandy matrix commonly found over saprolite/aprock, on depositional plains and low rises.
 - Blockier and coarse alluvial gravels, including ferruginous lithic and apatitic fragments over saprolite/aprock on debris slopes, colluvial fans and footslope along the flanks of high hills and mesas.
 - Shatter with a lag of ferruginous gravels and lithic fragments in a variably silty to sandy matrix with minor alluvium, low angle depositional plains (matrix bedrock dependent).
 - Ferruginous shatter gravels (quartz and feldspar) uniform textures sandy soils, pediments.
- Skeletal Soils over saprolite/aprock and bedrock**
- Fine ferruginous sands and clays, common ferruginous lag developed over outcropping bedrock/aprock (typically over argillaceous, micaceous and doleritic).
 - Stony clays with fine quartz sands, grains and gravels and siliceous bedrock fragments over outcropping bedrock/aprock (typically peritrypa and lithic volcanics).
 - Clay soils with common fine surficial quartz gravels and sands, ironstone granules and common calcareous fragments and common foliated bedrock fragments (typically developed over granitic batholith).
 - Silty-sandy skeletal soils developed over saprolite sediments. Common vein quartz and partially to totally oxidised bedrock/aprock fragments.
 - Ferruginous argillaceous soils with common fine ironstone and ferruginous granules (developed over calcareous and mudstones).
 - Variably calcareous skeletal soils developed over limestone and calcareous silt and sandstones, common weathered bedrock fragments and minor ironstone/micaeous pebbles, granules, common calcareous sand.
 - Calcareous sandy to silty soils developed over calcareous metamorphic/basaltic. Common oxidised bedrock fragments and calcic crystals.
 - Fine clay soils with vein quartz or quartzitic gravels and common surficial silicified and ferruginised bedrock fragments over outcropping siliceous meta-sediments/quartzites.
 - Siliceous and ferruginous sandstones and conglomerates forming mass caps. Common ferruginous argillaceous fragments and a finer lag of ironstone and ferruginous granules. Developed in Mesozoic sediments.
 - Siliceous/ferruginised metasediments: clays developed in metamorphosed granites.
 - Quartz and feldspar-rich grain and outcropping weathered granites.
 - Silty and variably micaceous soils overlying foliated outcropping schists and strongly foliated metasediments.

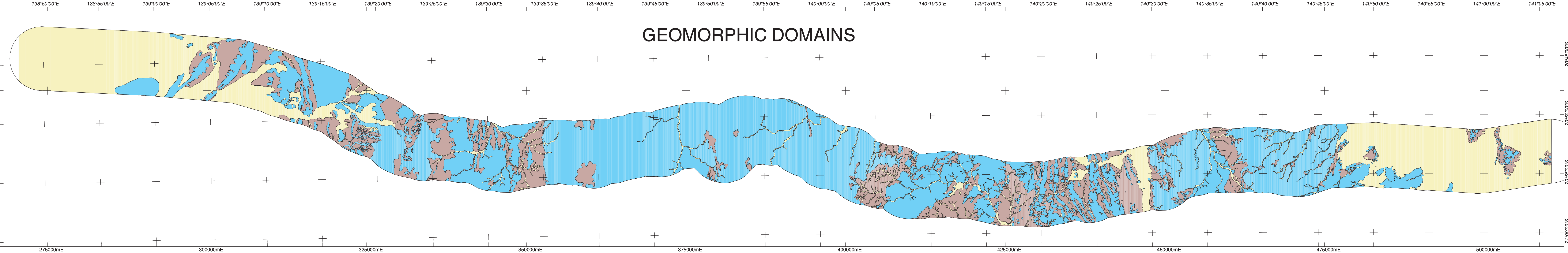
LANDFORM DIVISIONS



Landform divisions

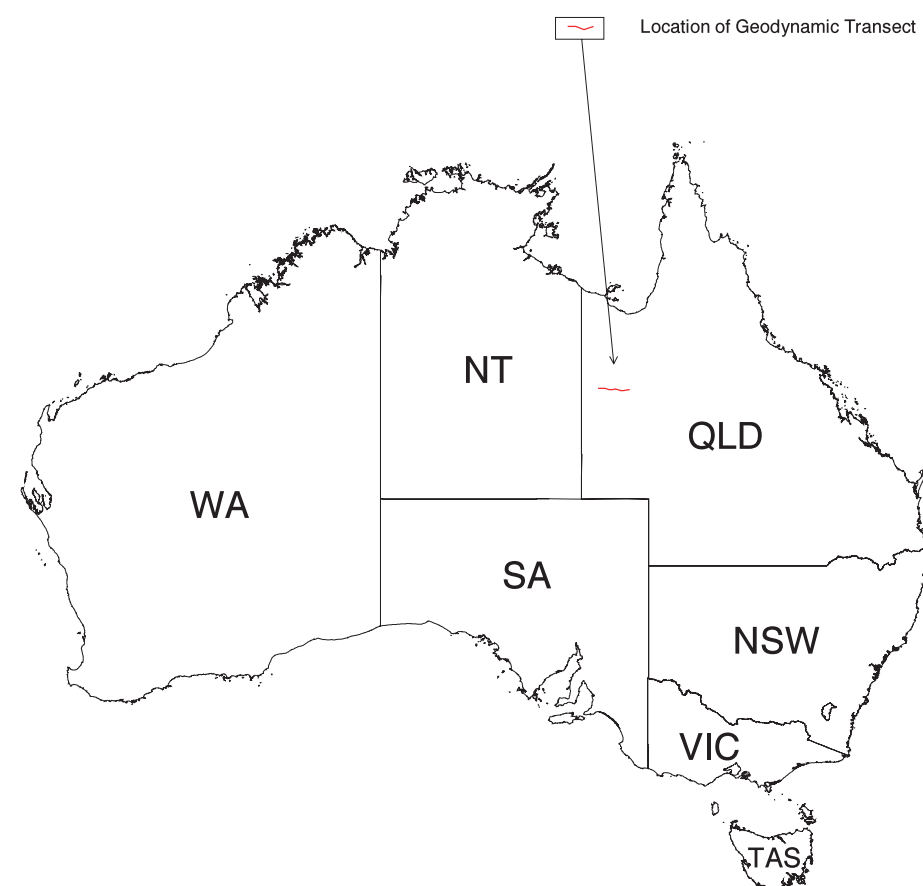
- Alluvial Plain
- Stream and River Channels
- Flood Plain
- Undulating Plain
- Hills
- Mesa
- Low Hills
- Rise
- Depositional Shape
- Erosional Shape
- Plain

GEOMORPHIC DOMAINS



Geomorphic Domains

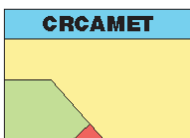
- Alluvium
- Colluvium
- Skeletal Soils



25 0 25 50 75 100 Kilometers

1 : 250 000 Scale

Compiled by M.F. Dool (CRCAMET), 1998.
It is recommended that the maps be referred to as:
M.F. Dool (1998). Regolith-landforms of the Mt Isa Geodynamic Transect, Cooperative Research Centre for Australian Mineral Exploration Technologies (CRCAMET), Perth.
© CRCAMET 1998.
CRCAMET does not warrant that this map is definitive, nor free from error and does not accept liability for the loss caused, or arising from, reliance upon information provided herein.
The work is an outcome of collaborative research between the CRCAMET, CRCLEME and the AGCPC, established and supported under the Australian Government Cooperative Research Centres Program.



Cooperative Research Centre for Australian Mineral Exploration Technologies
Cooperative Research Centre for Landscape Evolution & Mineral Exploration

WARNING: INK WILL FADE WITH PROLONGED EXPOSURE TO LIGHT.