Mt Babbage Inlet, Northern Flinders Ranges, Australia

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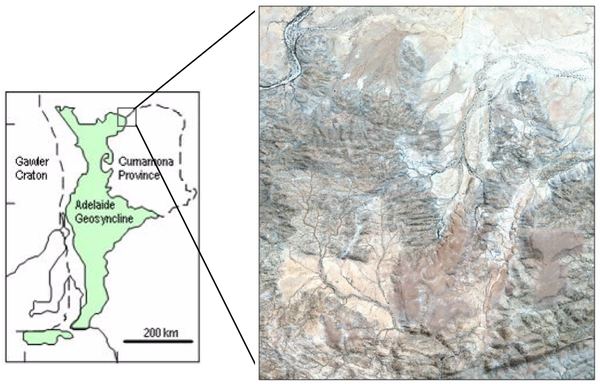
Meters
0 500 1,000 2,000

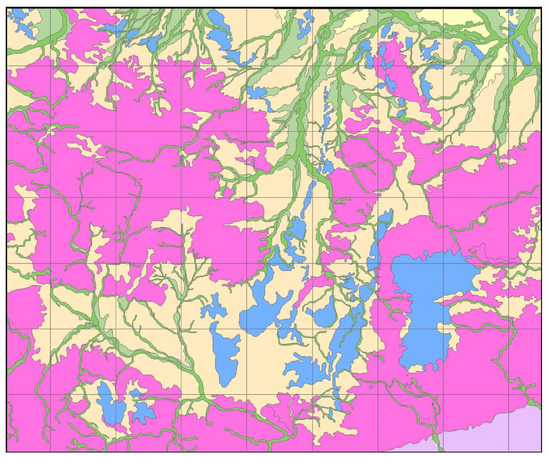
364000 365000 366000 367000 368000 369000 370000 371000
6698000 6697000 6696000 6695000 6694000 6693000 6692000 6691000

MGA94, zone 54

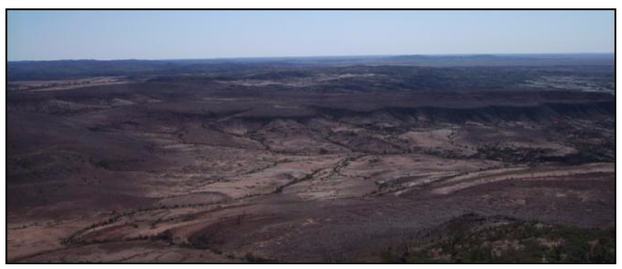
Location of the inlet, realtive to South Australia.
Quickbird remotely sensed imagery (courtesy of Heathgate Resources) of the Mt Babbage Inlet



Geomorphology map of the inlet



- Sediments
- Channels
- Mesozoic Exposures
- Adelaidean Metasediments
- Basement



Veiw north of teh inlet, taken from atop of Mt Babbage

Northern aspect of Mt Babbage & the Mt Babbage Ridge

Regolith Landform Units

Aap (Alluvial Sediments / Alluvial Plain): Sub-rounded to rounded, quartzose sands, sub-rounded sandstone & quartz gravels with minor exposures of sandstone, clast supported conglomerates, & rounded silcrete clasts. Low relief landform (0-9 m), with a shallow slope associated with poorly developed, shallow drainage & flood out plains. Vegetation is chenopod shrubs with minor woodland species.

Afa (Alluvial Sediments / Alluvial Fan): Red-brown-grey, rounded to sub-rounded, quartzose sands & silts with minor small lithic pebbles. Low relief, elongated landforms associated with the dissipation of considerable slopes. Elongated ephemeral swamps up to 3 m wide within the fans, typically associated with large zones of sediment collapse. Vegetation is sparse, dominated by chenopod shrublands. Vegetation within swampy units is dense, typically woodland species, with minor grasses & forbs.

Aed1 (Alluvial Sediments / Erosional Drainage): Sub-rounded to rounded, quartzose sands, sub-rounded sandstone & quartz gravels with minor exposures of sandstone, conglomerates & quartz veins associated with poorly developed, shallow drainage. Minor powdered regolith carbonate accumulations in stream beds, hardpan regolith carbonate accumulations on knick point in sandstone exposures. Vegetation is chenopod shrubs & forbs.

Aed2 (Alluvial Sediments / Erosional Drainage): Sub-rounded to rounded, quartzose sands, sub-rounded granite, feldspar & quartz gravels with exposures of highly polished, slightly weathered granites, gneisses & pegmatites associated with poorly developed, shallow drainage. Vegetation is sparse, typically chenopod shrubs.

ACah1 (Channel Sediments / Active Channel): Sub-rounded to rounded, grey-brown, quartzose sands & silts, sub-rounded sandstone, plagioclase & quartz gravels with minor exposures of sandstone, conglomerates & shales. Sporadic larger clasts of rounded, highly polished silcrete (up to 15 cm), sub-rounded to rounded granite (up to 30 cm), sub-angular to sub-rounded sandstones & reworked tilite/conglomerate clasts (including volcanics, quartzites & psammites). Low relief landform associated with ephemeral drainage & minor swamps. Vegetation is river red gums (Eucalyptus camaldulensis) & chenopod shrubs & pods of white teatree (Melaleuca glomerata).

ACah2 (Channel Sediments / Active Channel): Sub-rounded to rounded, grey-brown, quartzose sands & silts, sub-rounded sandstone, plagioclase & quartz gravels with minor exposures of sandstone, granites & gneisses. Sporadic larger clasts of rounded, highly polished silicified sandstone (up to 15 cm) & sub-rounded to rounded granite (up to 30 cm). Low relief landform associated with ephemeral drainage & minor swamps. Vegetation is river red gums (Eucalyptus camaldulensis) & chenopod shrubs.

ISps1 (Aeolian Sediments / Sand Plain): Sub-rounded to rounded, quartzose sands & silts, rounded, quartz, plagioclase and lithic gravels and pebbles. Vegetation is dense dominated by woodland species.

CHpd1 (Sheetflow Sediments / Depositional Plain): Sub-angular to angular, silicified sandstone (up to 8 cm), rounded quartz (up to 4 cm), sub-angular to sub-rounded lithic clasts (2-8 cm) with red-brown-orange, fine-grained sands & silts. Low relief depositional landform (0-9 m) with subtle contour banding defined by irregular distribution of small clasts (predominantly quartz). Sporadic exposures of sandstone, associated with shallow drainage. Vegetation is dense, chenopod shrubs, forbs & grasses.

CHep1 (Sheetflow Sediments / Erosional Plain): Sub-angular to angular, silicified sandstone & conglomerate clasts, angular to sub-angular & rounded quartz, sub-angular to sub-rounded lithic clasts on a shallow to moderate plains (0-9 m). Minor red-brown, fine-grained, sands & silts. Sporadic exposures of sandstone, typically in pods less that 3 m wide. Accumulations of salt in localised shallow depressions (up to 10 m wide).Minor drainage incision, up to 3 m wide & <1 m deep. Vegetation is dominated by chenopod shrublands.

CHep2 (Sheetflow Sediments / Erosional Plain): Sub-angular to sub-rounded, sandstone clasts (up to 8 cm), angular to sub-angular & rounded quartz (up to 4 cm) with minor red-brown, fine-grained, quartzose & calcareous, sands & silts with an abundance of disseminated gypsum. Low relief landform (0-9 m) with irregular contour banding. Sporadic exposures of moderately to highly weathered sandstone, highly weathered shales & mudstones, exposed in small drainage depressions. Minor salt accumulations around sandstone exposures. Vegetation is sparse, typically woodland species.

CHep3 (Sheetflow Sediments / Erosional Plain): Angular to sub-angular lithic quartz (up to 8 cm) & minor feldspar clasts (up to 4 cm), sub-angular to sub-rounded granite clasts (up to 8 cm) with red-brown, fine-grained, quartzose, sands & silts. Low relief landform (0-9 m), with distinct contour bands defined by irregular quartz accumulations. Minor shallow sheetflow fans dominated by lithic quartz & plagioclase in some units. Vegetation is sparse, conforming to contour banding. Cryptogam coating on some sand-dominated contour bands.

CHep4 (Sheetflow Sediments / Erosional Plain): Angular to sub-angular lithic quartz (up to 8 cm) & feldspar clasts (up to 4 cm), sub-angular to sub-rounded granite clasts (up to 8 cm) with minor red-brown, fine-grained, quartzose, sands & silts. Low relief landform (0-9 m) with subtle contour banding (banding up to 10 m wide). Minor white-buff-brown sands & silts hosted in linear aeolian dunes. Vegetation within the plains conforms to contour banding, dominated by chenopod shrubs. Vegetation within the dunes is dense, typically woodland species.

CHep5 (Sheetflow Sediments / Erosional Plain): Sub-angular to sub-rounded, ferruginised sandstone clasts (up to 15 cm), orange-red-brown, fine-grained, sands & silts with minor lithic pebbles and in situ ferruginised sandstone exposures (<4 cm). Low relief landform (0-9 m), with predominant contour banding defined by sandstone exposures and accumulations of sandstone clasts. Vegetation is sparse, almost absent, dominated by emu bush, small forbs & grasses.

CHer1 (Sheetflow Sediments / Erosional Rise): Sub-angular to angular, silicified sandstone & conglomerate clasts (up to 10 cm), angular to sub-angular & rounded quartz (up to 5 cm), sub-angular to sub-rounded lithic clasts (up to 8 cm), with minor red-brown, fine-grained, sands & silts. Low to moderate relief landforms (9-30 m) with a shallow to moderate slope. Sporadic exposures of sandstone, typically in pods less that 3 m wide, associated with shallow drainage depressions. Accumulations of salt in localised playa plains & shallow depressions (up to 10 m wide). Small colluvial fans dominated by lithic quartz and plagioclase common in units proximal to granitic saprolite. Vegetation is dominated by chenopod shrublands.

CHer3 (Sheetflow Sediments / Erosional Rise): Angular to sub-angular lithic quartz (up to 8 cm) & feldspar clasts (up to 4 cm), sub-angular to sub-rounded granite clasts (up to 8 cm) with minor red-brown, fine-grained, quartzose, sands & silts. Low to moderate relief landform (9-30 m) with prominent contour banding. Minor shallow sheetflow fans dominated by lithic quartz & plagioclase in some units. Vegetation is sparse, conforming to contour banding, dominated by chenopods.

SMer1 (Moderately Weathered Saprolite / Erosional Rise): Slightly to moderately weathered, coarse-grained sandstones, pebbly sandstones and conglomerates with minor angular sandstone clasts & red-brown sands & silts. Low to moderate relief land form (9-30 m) with a shallow slope. Minor ferruginisation & silicification of some sandstones. Vegetation is sparse, dominated by chenopod shrubs.

SMer2 (Moderately Weathered Saprolite / Erosional Rise): Moderately to highly weathered, poorly consolidated, grey-green shales, khaki-yellow mudstones & matrix supported conglomerates. Low relief landform (9-30 m) with a shallow to steep unstable slopes. Minor gypcrete & calcrete throughout the highly weathered shales, with silicification pods throughout some mudstones. Rises are typically unstable, with small gully incision common. Vegetation is sparse, dominated by chenopods.

SSep1 (Slightly Weathered Saprolite / Erosional Plain): Slightly weathered, coarse-grained, ferruginised sandstones with conglomeratic beds throughout, & intercalated partially silicified angular, gravely sandstones & medium-grained sandstones with minor sub-angular to sub-rounded sandstone clasts. Low relief landform (0-9 m), with a slight slope. Minor goethite surface staining on some sandstone surfaces. Vegetation is sparse, dominated by chenopod shrubs. Blue-green & orange lichen on western and southern exposures of ferruginised sandstones.

SSep3 (Slightly Weathered Saprolite / Erosional Plain): Slightly weathered, highly polished, rounded, feldspathic granites & potassic augen gneisses with minor angular to sub-angular plagioclase & quartz clasts. Low relief landform (0-9 m), with moderately steep slopes. Vegetation is dominated by open chenopod shrublands. Orange lichen growing on some ferruginised saprolite.

SSer3 (Slightly Weathered Saprolite / Erosional Rise): Slightly weathered, highly polished, rounded granites & granite tors with minor colluvial clasts, typically lithic, angular to sub-angular plagioclase & quartz. Low to moderate relief landforms (9-30 m), with moderately steep slopes. Sporadic pods of moderately weathered sandstones. Vegetation is dominated by open shrublands, with small forbs growing in joints.

SSer4 (Slightly Weathered Saprolite / Erosional Rise): Slightly to moderately weathered, highly polished, rounded, feldspathic granites & potassic augen gneisses with minor angular to sub-angular plagioclase & quartz clasts. Low to moderate relief landforms (9-30 m), with a moderately steep slope. Vegetation is dominated by open chenopod shrublands. Orange, pale green-blue & pale pink lichen growing on haematitic & goethititic saprolite.

SSer5 (Slightly Weathered Saprolite / Erosional Rise): Slightly to moderately weathered, highly polished, rounded granites & potassic augen gneisses with minor orange-brown, fine-grained, sands & angular to sub-angular plagioclase & quartz clasts.. Low to moderate relief landforms (9-30 m) with high angled, steep slopes. Pink-red-purple surficial staining common. Vegetation is dominated by open chenopod shrublands.

SSel3 (Slightly Weathered Saprolite / Low hill): Slightly weathered, highly polished, rounded granites & granite tors. High relief landforms (30-90 m), with very steep slopes. Minor surficial hardpan and fragmental calcrete in joints and depressions. Sporadic highly weathered mafic intrusives, up to 4 m wide. Vegetation is dominated by open shrublands, with minor chenopods growing in joints.

SSel5 (Slightly Weathered Saprolite / Low Hill): Slightly to moderately weathered, highly polished, rounded granites & potassic augen gneisses with minor red-brown, fine-grained, sands & silts, with angular to sub-angular plagioclase & quartz clasts. High relief landforms (30-90 m), with steep to very steep slopes. Pink-red-purple surficial staining common. Sporadic surficial, hardpan calcrete at breaks in slope. Vegetation is dominated by open chenopod shrublands.

SSeh6 (Slightly Weathered Saprolite / Erosional Hill): Slightly weathered tillite & quartzites, slightly to moderately weathered, blue-green dolomite & greywacke with Minor colluvial clasts, typically reworked, rounded & ridged volcanic & quartzite tillitic clasts. High relief landform (90-300 m), with very steep slopes & deep incised gullys. Surficial hardpan calcrete along breaks in slope and in filling cracks & veins. Vegetation is sparse.