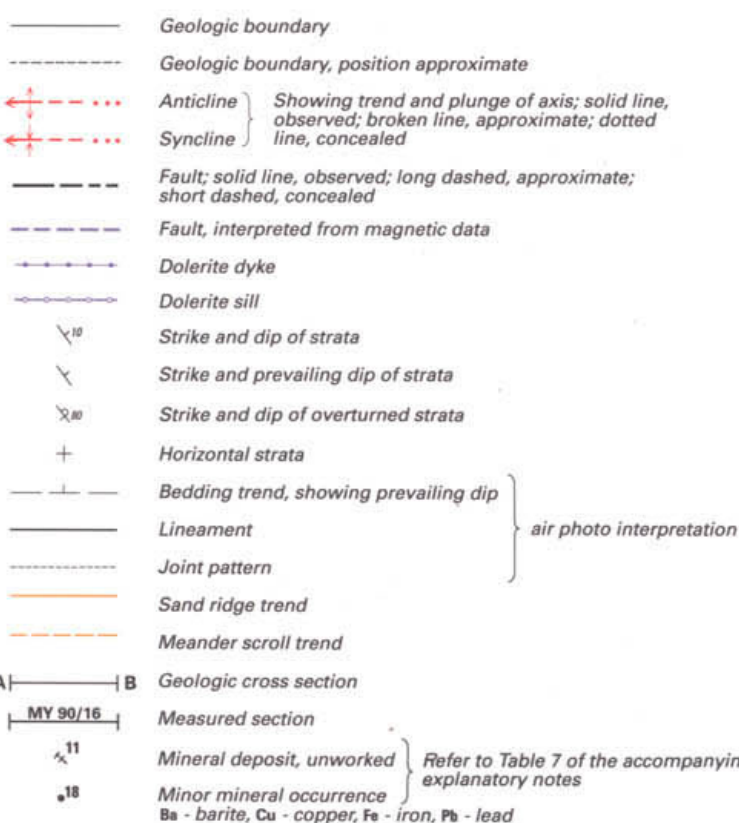


Qr	Sand, shelly sand: beach ridges
Qc	Sand, silt, clay: active coastal alluvium
Qc ₁	Shelly silt and clay: incised vegetated coastal alluvium
Qa	Gravel, sand, silt: alluvium
Cz	Undifferentiated alluvial, colluvial and eluvial deposits: unconsolidated gravel, sand, silt, clay, ferruginous cemented detritus, minor calcrete, silcrete and ferricrete
Cze	Massive oolitic fossiliferous limestone: Beatrice Island limestone
Czc	Sand deposits with distinct linear elements
Czk	Calcrete
Czl	Ferricrete
Kl	Lithic sandstone, quartzarenite, muddy sandstone, conglomerate, sandy mudstone, commonly ferruginised and silicified; mudstone contains bivalve and brachiopod shell impressions, ammonite and belemnite casts; sandstone commonly contains plant debris casts and leaf imprints; rare airflow tuff
Clc	Fine-grained, usually micaceous sandstone, siltstone and shale; laminated siltstone, and red and green shale
Clb	Fine- to very coarse-grained friable sandstone; thin to very thick-bedded, low-angle cross-stratification; trace fossils
Edl	Dolerite sills
Emy	Fine-grained, thin-bedded to flaggy, in places ferruginous, micaceous sandstone with mudstone interbeds; minor sedimentary ironstone beds
Emz	Ferruginous sandstone, sandy ironstone and hematitic shale interbedded with micaceous sandstone and mudstone, and beds of silicified and ferruginous ooids
Emk	Mainly fine-grained sandstone, in places ferruginous; thin-bedded to flaggy with some interbedded coarse-grained sandstone and minor conglomerate
Er	Flaggy, fine-grained sandstone and siltstone, commonly micaceous
Ere	Quartzarenite, ferruginous in places, medium grained with some thin quartz granule beds; medium-bedded; common trough cross-beds and lesser tabular and herring bone cross-beds; ripples, desiccation cracks and mud clasts in places, karstically weathered, strongly jointed
Ero	Fine grained sandstone, medium- to coarse-grained ferruginous sandstone, ferruginous and in places micaceous mudstone, silicified and partly ferruginous oolitic beds; mudstone intraclasts, syneresis cracks, trough and hummocky cross-beds and symmetrical ripples
Erom	Fine- to coarse-grained sandstone and mudstone; Basal and near basal thin granule conglomerate beds
Era	Undifferentiated Abner Sandstone, Symbols indicate members present where unit cannot be divided at map scale.
Erah	Quartzarenite, medium-grained, well sorted, rare thin quartz granule beds; medium- to very thick-bedded, planar and trough cross-bedded, karstically weathered, strongly jointed
Eraj	Quartzarenite and sublitharenite, very fine- to medium-grained with thinly interbedded, commonly micaceous siltstone and mudstone; common mudstone intraclasts and cross-beds
Erax	Quartzarenite, medium-grained, well sorted, occasional quartz pebble chains; medium- to very thick-bedded, trough and planar cross-bedded, karstically weathered, strongly jointed
Err	Fine- to medium-grained glauconitic and micaceous sandstone; siltstone and mudstone, commonly ferruginous and in places micaceous; thin- to medium-bedded, planar and trough cross-beds and hummocky cross-stratification, mudstone/siltstone intraclasts, wave ripples, toolmarks and convolute beds
Erz	Thinly interbedded chertified stromatolitic dolostone, dololite, dolarenite and minor sandstone with abundant chert nodules and laminae and intraclast chert breccia; common diagnostic small domal stromatolites, desiccation cracks, tepee structures, gypsum pseudomorphs; minor botryoidal quartz nodules (enterolithic chert)
Eru	Interbedded red-brown to purple mudstone and very fine- to fine-grained sandstone both commonly micaceous and glauconitic, minor dololite and dolomitic mudstone; ubiquitously laminated, low angle and hummocky cross-beds, flaser-linsen bedded, soft sediment deformation features
Eri	Predominantly fine- to medium-grained, thin- to medium-bedded quartzarenite with thin interbeds of micaceous mudstone; minor poorly sorted, coarse-grained pebbly (quartz) sandstone; basal sandstone conglomerate in places; trough and hummocky cross-beds, abundant bedding parallel mudclasts, current ripples, tool marks and load casts
Ern	Red-brown micaceous and rarely glauconitic mudstone and fine-grained sandstone; thin-bedded laminated and cross-laminated, convolute bedding, load casts and toolmarks; occasional basal conglomerate/breccia
Enz	Dololite, stromatolitic and cross-bedded; dolomitic, lithic and feldspathic sandstone; dolarenite; dolomitic mudstone and muddy dololite frequently containing evaporite pseudomorphs; conical, large columnar, stratiform and domal stromatolites; diagnostic silicified ooid beds; common pink ?tuffaceous mudstone
Eny	Massive, coarse polymict conglomerate, pebbly lithic sandstone, dolomitic sandstone and dolarenite; typically poorly sorted and trough cross-bedded with frequent ripples
Em	Undifferentiated McArthur Group
Emr	Very fine- to medium-grained, thin- to medium-bedded quartzarenite, in places micaceous or glauconitic; distinctive wavy bedding, small ripples and toolmarks, mud clast casts, desiccation cracks, convolute bedding, and hummocky cross-stratification
Emj	Thinly interbedded chertified stromatolitic dolostone, dololite, dolarenite and minor sandstone with abundant chert nodules and laminae and intraclast chert breccia; common diagnostic small domal stromatolites, desiccation cracks, tepee structures, gypsum pseudomorphs; minor botryoidal quartz nodules (enterolithic chert)
Emnd	Dolomitic mudstone, fine- to coarse-grained dolomitic sandstone and lesser sandy dolarenite; thin-bedded, cross-bedded, common ripples, polygonal shrinkage cracks small botryoidal quartz nodules (cauliflower and enterolithic chert)
Emnh	Thin-bedded dolomitic mudstone, dololite and muddy dololite with interbeds of fine- to coarse-grained sandstone, dolarenite, sandy dolarenite and dolomitic sandstone, and chertified stromatolitic dolostone, minor silicified pink ?tuffaceous mudstone; mudstone and dololite commonly contain chert pods and pseudomorphs after sulphate evaporites and halite; sandstones are rippled and cross-bedded; stromatolites are mainly stratiform conical and domal; common desiccation cracks, tepee structures, and some botryoidal quartz nodules (enterolithic chert)
Emnc	Thin-bedded mudstone and dolomitic mudstone, partly carbonaceous and pyritic; dololite and ?tuffaceous mudstone and minor fine-grained dolarenite; common intraformational and slump breccia;
Emx	Dololite, algal laminated dololite, muddy dololite and dolarenite with lesser mudstone, and pelletal dolarenite; laminated to massive, and brecciated; small silica spheroids
Emq	Siltstone and mudstone, thin-bedded to laminated, variously dolomitic, carbonaceous and pyritic; dololite, pink and green ?tuffaceous mudstone, rare breccia and sandstone
Emp	Light grey recrystallised dolostone. Dololite and crystalline dolostone, light grey, massive to thin-bedded with radiating needle-like gypsum crystal pseudomorphs normal to bedding; minor dark grey mudstone; rare dolarenite; common thin interbeds of pink silicified and green ?tuffaceous mudstone. Does not outcrop
Emea	Dololite, stromatolitic dololite, dolomitic mudstone, dolarenite and dolomitic breccia; domal and conical stromatolites, common halite casts and saccharoidal chert after evaporites
Emt	Dololite, stromatolitic dololite (stratiform, domal, columnar and conical forms), red-brown dolomitic mudstone, ripple marked and cross-bedded dolarenite, sandy dolarenite and sandstone; common desiccation cracks and pseudomorphs after gypsum and halite; breccia beds and ooids in dolarenites
Emd	Dominantly white flaggy fine-grained sandstone and lesser mudstone, in places dolomitic; common tool marks, syneresis cracks, runzel marks, low angle cross-beds and some mud clasts; lesser dolostone, in places silicified and stromatolitic with interbedded medium- to coarse-grained, medium-bedded dolomitic sandstone, typically vuggy, cross-bedded and ripple marked
Emo	Stromatolitic dololite (stratiform, domal, conical and columnar forms) and muddy dololite with interbeds of dolarenite, mudstone and rare fine-grained sandstone; ooidal, brecciated and conglomeratic intervals common; often chertified; localised development of sideritic 'marble' after sulphate evaporite
Emi	Interbedded red to purple dolomitic mudstone and variably dolomitic cross-bedded sandstone; stromatolitic dolostone, flat-pebble breccia and rare carbonaceous shale and pink tuffite; common botryoidal quartz nodules (cauliflower chert), ripples, slumping, desiccation cracks, and gypsum and halite casts and moulds
Emz	Quartzarenite, white to pink, locally red-purple, fine- to medium-grained, well-sorted, thin- to medium-bedded, cross-bedded, extensively rippled with common mud clast impressions; minor intervals of very fine-grained flaggy sandstone and mudstone; distinctly ferruginous mottled sandstone with halite and gypsum casts and pseudomorphs occurs mainly in uppermost beds; common basal sandstone conglomerate
Eu	Coarse-grained pebbly sandstone and cobble-boulder conglomerate; immature, poorly sorted, lithic with abundant angular to rounded pink spherulitic rhyolite clasts; minor red aphanitic rhyolite lava, flow banded
Ett	Porphyritic rhyolite lava with phenocrysts of quartz and feldspar set in a spherulitic groundmass. Does not outcrop
Etz	Lower red hematitic dolarenite, or thick-bedded litharenite, separated from upper white thin- to medium-bedded sublitharenite and minor litharenite by a thin ferruginous interval, rarely by psilotic and massive ironstone; abundant trough cross-beds, mudstone-dolostone intraclasts, ripple marks, discoidal gypsum pseudomorphs, lilegang banding; pseudo-karstic weathering pattern
Etg	Amygdaloidal basalt lava; dolerite dykes and sills; minor intercalated medium-grained sandstone; hyaloclastic breccia (pépérite) with basalt blocks in a sandy matrix
Eto	Undivided Wollgorang Formation (cross-section only)
Eto ₂	Interbedded fine-grained flaggy sandstone and red-brown mudstone, micaceous and dolomitic; abundant soft sediment deformation features, flaser bedding, evaporite casts and mud clasts. White, fine- to coarse-grained, thin- to medium-bedded, lithic and feldspathic sandstone; trough cross-beds, ripple marks and mud clasts; rare basal polymict conglomerate
Eto ₁	Mainly dololite, dark grey-weathered, thin-bedded with characteristic ovoid nodules, sometimes pyritic or stromatolitic; flat pebble breccia; mudstone, partly tuffaceous, sometimes carbonaceous and pyritic, rare evaporite mineral casts and sulphides; rare coarse-grained dolomitic sandstone; rare red aphanitic, flow banded or vesicular, rhyolite lava; localised ferruginised felsic pyroclastic flow, fall and surge deposits
Ete	Basaltic-doleritic lavas, reddish-brown to dark grey spheroidally-weathering, massive to amygdaloidal, generally potassium metasomatised; rhyolite lava and autobreccia, red, flow banded and aphanitic
Etzw	Fine-grained and rarely medium-grained sandstone and mudstone; mottled brown to fawn, very thin- to medium-bedded, typically flaggy; variably glauconitic, feldspathic, lithic and micaceous; soft sediment deformation features, ripple and tool marks, runzel marks, flute casts
Etz	Quartzarenite and sublitharenite, red-brown to purple, hematitic, mainly medium-grained, moderately- to well-sorted and thin- to medium-bedded with bedding laminations, planar and trough cross-beds, abundant ripples and mud clasts, syneresis cracks; thin, red-brown mudstone interbeds
Etq	Upper part: dolostone, red-purple and grey, sometimes stromatolitic, in places recrystallised, ooidal or chertified; thin-bedded dololite, muddy dololite and fine- to medium-grained dolarenite, subordinate flat pebble breccia and coarse-grained dolomitic sandstone; thin- to medium-bedded, in places wavy and cross-bedded; mudstone. Lower part: interbedded red and green mudstone and fine-grained sandstone; variably dolomitic, ripples, planar cross-beds, hummocky cross-stratification, flaser bedding, soft sediment deformation features, tool and runzel marks; sandstone contains shale clasts, minor glauconite and is micaceous in places, rare halite casts; rare red aphanitic rhyolite lava
Etir	Sandstone, very fine- to very coarse-grained and rarely conglomeratic; generally moderately- to poorly-sorted, sometimes bimodally-sorted, in places feldspathic, ferruginous, micaceous or glauconitic; mud clast impressions, ripples, planar and trough cross-beds, rare syneresis cracks, botryoidal quartz nodules (cauliflower chert), gypsum and halite pseudomorphs; mudstone, red, ferruginous and micaceous, commonly laminated
Eti	Quartzarenite, white to pale pink, mainly fine- to medium-grained and thin- to very thick-bedded with rare quartz pebble beds, medium- to large-scale trough cross-beds and channels, channels lag deposits, ripples, mud clasts, rare desiccation cracks and herringbone cross-stratification; minor thin-bedded mudstone, commonly micaceous; minor basalt lavas. Et ₁ : Massive and foliated basaltic lavas, partly amygdaloidal; pillow structures
Ets	Basalt lava, amygdaloidal and massive, in part hyaloclastic. Edl: Dolerite and gabbro sills and dykes
Ety	Quartzarenite and lesser sublitharenite and litharenite; fine- to coarse-grained, moderately- to poorly-sorted with scattered quartz pebbles and minor conglomerate; thin- to very thick-bedded with medium- to very large-scale trough cross-beds and large channels, rippled in place
Els	Rhyolitic to rhyodacitic ignimbrite and accretionary lapilli-bearing airflow tuff; dacitic pyroclastics, lavas, sills and dykes; basalt lavas; rare dolerite intrusions; intercalated immature, feldspathic, fine- to medium-grained volcanoclastic sandstone

QUATERNARY	CAINOZOIC
QUATERNARY AND OLDER CAINOZOIC	
EARLY CRETACEOUS	MESOZOIC
EARLY CAMBRIAN	PALAEOZOIC
7 ECTASIAN - CALYMIAN	MESOPROTEROZOIC
CALYMIAN	
1640 ± 7 Ma (Bmq)	
STATHERIAN	PALAEOPROTEROZOIC
1713 ± 6 Ma (Bt)	
OROSIRIAN	
1851 ± 7 Ma (Bs)	
	PROTEROZOIC

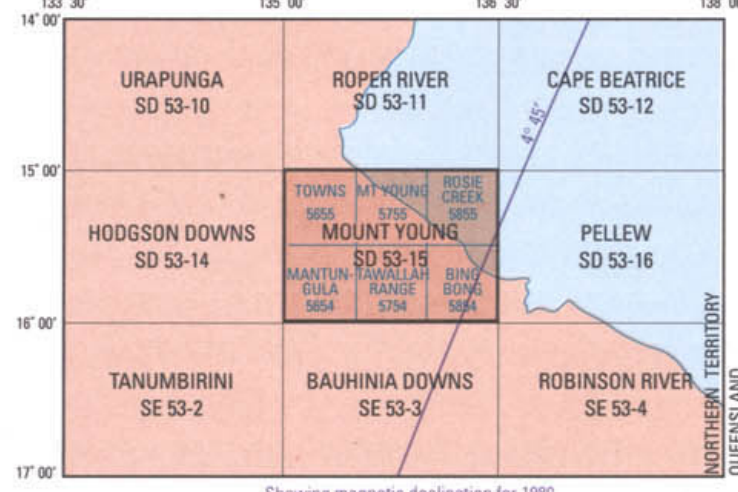
GEOLOGIC SYMBOLS



MAP LOCALITY



INDEX TO ADJOINING MAPS



Geology: 1989-1990 by B.A. Pietsch, P.W. Haines, D.J. Rawlings
T.L. Madigan, P. Kruse
Compiled: 1991-1992 by B.A. Pietsch, P.W. Haines
Design: 1992 by G.K. Andrews
Cartography: 1992 by S. Hill, G.K. Andrews, K. Rahikainen, R. Ocampo
Colour Separation: 1993 by Australian Geological Survey Organisation, Canberra, Australia
Printed: 1993 by Mercury-Walch, Hobart, Australia

Published by the Department of Mines and Energy
Issued under the authority of the Minister for Mines and Energy
the Honorable Shane L. Stone, MLA
Base map compiled by the Division of National Mapping in 1980



P. Le Messurier, Director, Northern Territory Geological Survey

MOUNT YOUNG

SECOND EDITION 1993

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