

LEGEND

PALEOPROTEROZOIC

× PNgt	Nueltin granite suite: granitic dykes, pink to red stained hematitic, medium- to coarse-grained, leucocratic, commonly porphyritic with quartz and perthitic K-feldspar phenocrysts, biotite, magnetite, apatite, fluorite and titanite in interstitial clots, vuggy textured locally.
PHgt	Hudson granite suite: granitic dykes, pink, leucocratic, medium-grained sugary, equigranular to weakly porphyritic, minor biotite, local garnet, fluorite.
ARCHEAN OR PALEOPROTEROZOIC	
(all rocks are metamorphosed at greenschist to amphibolite facies)	
APgb	Gabbro, quartz leucogabbro, monzodiorite: medium to dark green, medium- to coarse-grained, ophitic, typically with hornblende oikocrysts, magnetite, minor biotite, titanite, massive to foliated.
APgm	Granite: white to pale pink, leucocratic, medium- to coarsed-grained, inequigranular to weakly K-feldspar-phyric, biotite-muscovite-bearing, local diffuse pegmatitic enclaves; as stocks and porphyritic dykes, massive to locally mylonitic.
Quartzite and associated rocks	
APqz	Quartzite, minor oligomictic conglomerate, slate, quartz-muscovite schist: white, grey, blue or pink, locally green fuchsitic or reddish hematic, medium- to coarse-grained, crossbedded, massive to strongly cleaved.
APsl	Slate, phyllite: black to light grey, thinly bedded, very fine- to fine-grained commonly characterized by chlorite-muscovite-kyanite+/-chloritoid assemblages, foliated to schistose.
APqcg	Oligomictic conglomerate: white to dark grey to gossanous, orthoquartzite and vein-quartz pebble- to boulder-sized clasts in a fine- to medium-grained micaceous matrix, commonly pyritic, locally bedded, massive to cleaved.
APcg	Polymictic conglomerate: vari-coloured, rounded to subrounded pebbles, cobbles and boulders of orthoquartzite, vein quartz, quartz-feldspar porphyry, iron-formation, felsic to mafic volcanic rocks, and granite in a white quartz-rich to grey micaceous to pyritic dark or rusty matrix, locally bedded and transitional to oligomictic conglomerate, massive to cleaved to schistose.

NEOARCHEAN

(all rocks are metamorphosed at greenschist to amphibolite facies)	
Agt	Syenogranite, monzogranite: pink to buff, medium- to coarse-grained, equigranular or with microcline megacrysts; biotite, hornblende, epidote and/or magnetite, retrograde chlorite and muscovite common, massive to foliated, locally mylonitic.
Afp	Tern Lake porphyry: white to buff, fine-grained felsic porphyry, with quartz, K-feldspar and plagioclase phenocrysts; cm-dm scale layering defined by variations in abundance of phenocrysts; Āfpg: Biotite granitodiorite and porphyry: white to buff, fine- to coarse-grained, with plagioclase and K-feldspar phenocrysts, biotite, hornblende, massive to foliated, locally mylonitic.
Amarulik wacke and associated rocks	
Āakg	Arkosic greywacke, minor siltstone, mudstone and conglomerate: buff to medium grey, quartz and feldspar crystal and lithic clasts in a medium- to coarse-grained bt-msc quartzofeldspathic matrix, thick massive beds common, poorly sorted, locally displaying grading; massive to foliated, recrystallized; Aacg: Pebble conglomerate; granule- to cobble-size quartzite, vein quartz, bt-schist and iron-formation clasts in a grey-buff quartzofeldspathic matrix, unsorted.
Aqz	Quartzite, minor oligomictic conglomerate, quartz-muscovite schist. White, grey, blue quartzite, locally with abundant muscovite, minor kyanite, fuchsite; medium- to coarse-grained, massive to foliated, locally schistose.
Aqcg	Oligomictic conglomerate; white to dark grey, orthoquartzite to vein quartz pebbles to boulders in a muscovite and quartz-rich matrix, locally bedded, cleaved to foliated.
Acg	Polymictic conglomerate, vari-coloured, orthoquartzite, iron-formation and polycrystalline quartz to vein quartz pebbles to boulders in a muscovite and quartz-rich matrix, locally bedded, cleaved to foliated.
Aaif	Iron-formation: dominantly oxide, local silicate facies, banded black-grey or white, typically rusty; chert, magnetite and/or silicate-rich bands or lamellae with grunerite, hornblende and garnet; typically with thin Fe-rich, garnetiferous pelitic schist interbeds, foliated.
Aasl	Slate, siltstone: medium grey to black or green; biotitic-pelite to biotite-hornblende schist; fine- to medium-grained, locally with porphyroblastic garnet-hornblende or garnet-staurolite and/or cordierite, andalusite, foliated to schistose.
WOODBURN GROUP and associated rocks (2.72–2.71 Ga)	
Āwv	Undifferentiated volcanic rocks and associated sediments; dominantly felsic to intermediate volcanic, volcanoclastic and volcanogenic sedimentary rocks; minor mafic or ultramafic rocks gabbro and iron-formation; rare arkose, phyllite, marble.
Āwif	Iron-formation, dominantly oxide facies, local silicate or sulphide facies; banded white/grey and black, rusty; chert and magnetite bands, silicate-rich layers or lamellae with grunerite, chlorite, biotite; sulphide-rich layers with pyrite and pyrrhotite; fine- to medium-grained, typically with thin Fe-rich shale and wacke interbeds, foliated; Sulphidic iron-formation and massive to semi massive sulphide; banded white/grey and yellow metallic, rusty; pyrite and pyrrhotite-rich layers with magnetite, lesser arsenopyrite and silicate-rich layers.
Āwg	Greywacke, slate, minor granule conglomerate and iron-formation; grey to brown, graded greywacke to slate couplets, chlorite and/or biotite bearing, fine- to medium-grained, well bedded, massive to cleaved or schistose.
Āwsl	Slate to phyllite: black to light grey, very fine- to fine-grained commonly characterized by chlorite-muscovite-chloritoid ± kyanite assemblages, thin bedded to laminated, foliated to schistose.
Āwsm	Siliceous marble: buff, tan and white, modified cm-scale bedding defined by fine-grained quartz-dolomite layers, very coarse dolomite sheaves up to 30 cm, and medium-grained granular dolomite ± calcite layers with tremolite, phlogopite, detrital quartz or rare humite; massive to foliated.
Āwms	Quartz-muscovite ± chlorite schist: grey to green to pink, fine-grained, locally bedded, minor quartz eyes in a homogenous muscovite, quartz matrix with iron carbonate and plagioclase; lesser quartz-plagioclase-muscovite-chlorite schists likely related to unit Āwvc; Āwmp: Quartz-plagioclase muscovite schist with 2–5 mm plagioclase porphyroblasts.
Āwi	Intermediate volcanic rocks; crystal and lapilli tuffs and breccias, local subvolcanic intrusions and possible lava flows; white to grey or buff; euhedral blue quartz and/or plagioclase, locally amphibole phenocrysts; very fine-grained to aphanitic, commonly with abundant disseminated carbonate; foliated, locally bedded and transitional to reworked deposits; includes volcanoclastic rocks and felsic volcanics.
Āwfq	Felsic volcanic rocks; massive volcanic flows and subvolcanic intrusions, minor volcanoclastic rocks; white to buff, with blue quartz and euhedral plagioclase phenocrysts, rare tourmaline, fine-grained to aphanitic, massive to foliated.
Āwvc	Felsic to intermediate reworked volcanoclastic and related rocks; tuffaceous wacke, greywacke, minor siltstone and mudstone, minor primary volcanoclastic rocks; grey or pale pink or green banded, fine- to medium-grained, commonly micaceous and calcareous; quartz-feldspar-muscovite-chlorite- carbonate schists, cm- to m-scale layering, local graded beds; Āwlam: laminated volcanoclastic wacke with amphibole porphyroblasts, grey to green mm- to cm-scale layering overgrown by foliated to randomly oriented coarse porphyroblasts of amphibole, locally amphibole obliterates layering, also fine-grained amphibolite.
Āwm	Mafic volcanic and related rocks; mafic volcanic flows, amphibolite, subvolcanic gabbroic intrusions; black to green; fine- to medium-grained, medium- to coarse-grained, locally ophitic to subophitic textured, massive to foliated, rarely pillowed; Āwa: gabbro, peridotite, spotted amphibolite, diorite; black to dark green to grey; coarse-grained, amphibole and/or plagioclase phenocrysts or porphyroblasts, massive to foliated, may include some recrystallized, massive mafic volcanic flows; Āmd: diorite.
Āwwk	Ultramafic to mafic volcanoclastic rocks; dark green to black or brown; fine- to medium-grained; plagioclase, minor quartz and lithic clasts in a chlorite-rich matrix, possible tuffaceous volcanoclastic rocks with plagioclase phenocrysts, streaky layering, locally bedded.
Āwkm	Ultramafic and related rocks: komatiite and basaltic komatiite flows, minor tholeiitic mafic flows; gabbro, peridotite, basaltic komatiite and mafic dykes, rare ultramafic to mafic volcanoclastic rocks; green, tan or black, massive to layered, commonly with spinifex and cumulate zones, rarely polyhedral jointing, breccia zones; carbonate alteration common, foliated to schistose; Āwks: ultramafic schist characterized by talc, tremolite, serpentine, magnetite and/or Fe carbonate, basaltic komatiitic protolith.

Geological contact (approximate, inferred)	
Bedding, (inclined, upright, overturned)	
Structures of unspecified generation	
Main foliation in outcrop (Sm)	
Crenulation cleavage in outcrop	
Crenulation lineation	
Fold axis	
Fault	
Archean or Proterozoic structures	
S ₁ foliation	
F ₁ fold axial plane	
L ₁ mineral/stretching lineation	
Proterozoic structures	
S ₂ foliation, crenulation to differentiated cleavage	
F ₂ fold axial plane	
F ₂ fold axis; z, u	
L ₂ intersection lineation	
D ₂ thrust fault	
S ₃ foliation, crenulation to differentiated cleavage	
F ₃ fold axial plane	
L ₃ crenulation lineation	
F ₃ fold axis; z, u	
S ₄ crenulation cleavage	
F ₄ fold axis; s, z	
L ₄ crenulation lineation	
F ₄ axial plane	
Principal mineral occurrences (number refers to ID column of mineral occurrence table)	2×
Outcrop	×