Yukon Bedrock Geology - Legend
updated 2018

Yukon Geological Survey

Yukon Energy, Mines and Resources

SOUTHWEST — NORTHEAST — NORTH

A

QUATERNARY (Qs)
Q — **QUATERNARY**: *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

MIOCENE TO PLIOCENE AND(?) YOUNGER (Tvs)
Nw — **WRANGELL LAVAS:** *mafic to felsic volcanic rocks (1) with local conglomerate (2)*
1, rusty red-brown, phyric and non-phyric basaltic andesite flows (minor pillow lava), interbedded with felsic tuff, volcanic sandstone and conglomerate; acid pyroclastics related to intra-Wrangell intrusions; thin basaltic andesite and andesite flows ***(Wrangell Lavas)***
2, volcanic conglomerate; clasts all Wrangell derived ***(Wrangell Lavas)***

MID TO LATE MIOCENE (Np)
Mw — **WRANGELL SUITE (16-6 Ma):** *fine to medium-grained, hornblende ± biotite granodiorite and porphyritic (K-feldspar) hornblende granodiorite; medium-grained, uniform biotite diorite and pyroxene gabbro; subvolcanic hornblende ± biotite rhyolite, rhyodacite, dacite*

OLIGOCENE
OT — **TKOPE SUITE (34-23 Ma):** *light pinkish-grey, medium to coarse-grained, homogeneous, biotite and/or hornblende granite (locally miarolitic); lesser light creamy-grey biotite hornblende granodiorite, dark grey biotite hornblende quartz diorite and gabbro-diorite* ***(Tkope Suite)***

PALEOCENE TO OLIGOCENE (Tvs)
OA — **AMPHITHEATRE:** *yellow-buff to grey-buff sandstone, pebbly sandstone, polymictic conglomerate, siltstone, mudstone; minor brown-grey carbonaceous shale and thin lignitic coal; mostly fluvial and lacustrine deposits, local debris-flow deposits; some shallow marine* ***(Amphitheatre Fm; Kulthieth)***

EOCENE (Ep)
Es — **SEWARD SUITE (52-41 Ma):** *non to weakly foliated, light to mid-brownish-grey, medium-grained, biotite and hornblende-biotite tonalite and granodiorite; rarer granite and quartz diorite* ***(Seward Suite)***

LATE EARLY CRETACEOUS (mKp)
EKK — **KLUANE RANGES SUITE (125-115 Ma):** *mid-grey, medium to coarse-grained, biotite hornblende granodiorite, quartz diorite, quartz monzonite, and hornblende diorite* ***(Kluane Ranges Plutonic Suite)***

EKP — **PYROXENITE CREEK SUITE (125-113 Ma):** *medium-grained hornblende pyroxene gabbro, and biotite hornblende diorite; olivine and hornblende clinopyroxenite* ***(Pyroxenite Creek Ultramafic)***

UPPER JURASSIC TO LOWER CRETACEOUS (JKs)
JKD — **DEZADEASH:** *clastic succession (1) but locally including undifferentiated younger strata (2)*
1, interbedded light to dark buff-grey lithic greywacke, sandstone, siltstone, thin dark grey shale, argillite, phyllite and conglomerate; rare tuff ***(Dezadeash Fm)***
2, sandstone, conglomerate, shale, siliceous tuff; shallow marine shelf deposits

LATE JURASSIC TO EARLIEST CRETACEOUS (JKp)
JKS — **SAINT ELIAS SUITE (ca. 154-143 Ma):** *nonporphyritic and porphyritic (K-feldspar), biotite hornblende granodiorite; lesser nonporphyritic biotite and/or hornblende tonalite; locally includes biotite hornblende quartz monzodiorite, quartz diorite, granite, and quartz monzonite* ***(Saint Elias Suite)***

CRETACEOUS AND (?) OLDER
YA (YAKUTAT)

KY — **YAKUTAT:** *greywacke and conglomerate in thick members or interbedded with siltstone, argillite, or slate; mélange with blocks (to several km) of greenstone, limestone, marble, granitic rocks, chert, and greywacke in a matrix of cherty and tuffaceous pelite* ***(Yakutat Gp)***

CG (CHUGACH)

KV — **VALDEZ:** *dark grey argillite and greywacke: includes granitoid dikes, sills, and locally plugs, green pillow lava, breccia, and tuff; metamorphosed equivalents include brown schist, granitoid gneiss and dark green amphibolite* ***(Valdez Gp)***

WR (WRANGELLIA)

UPPER TRIASSIC TO (?) CRETACEOUS
uTRKT — **TATAMAGOUCHE:** *dark to light grey phyllite, medium to coarse-grained sandstone, minor greywacke and pebble conglomerate, may include upper parts of McCarthy Fm*

LATE TRIASSIC
LTRB — **MT. BEATON SUITE (ca. 217 Ma):** *medium to coarse-grained, unfoliated, hornblende diorite to hornblende-biotite,quartz diorite; salt and pepper appearance; locally abundant dark grey fine-grained gabbro; may include parts of the Early Cretaceous Kluane Ranges Suite*

UPPER TRIASSIC
uTRM — **MCCARTHY:** *light to dark grey calcareous to carbonaceous mudstone and shale; locally interbedded with buff-coloured limestone giving the rock as striped appearance*

UPPER TRIASSIC
uTRC — **CHITISTONE:** *thin interbedded light to dark grey argillaceous limestone and dark grey argillite; massive light grey limestone, limestone breccia and darker grey, well-bedded limestone; white to creamy-white gypsum and anhydrite* ***(McCarthy, Chitistone and Nizina limestone)***

uTRN — **NIKOLAI:** *basalt, andesite (2), basal conglomerate (1) and minor limestone (3)*
1, volcanic breccia, pillow lava and conglomerate at base
2, amygdaloidal basaltic and andesitic flows, with local tuff, breccia, shale and thin-bedded bioclastic limestone ***(Nikolai Greenstone)***
3, locally includes dark grey phyllite and minor thin grey Middle Triassic limestone

LATE TRIASSIC
LTRK — **KLUANE ULTRAMAFIC SUITE (232-228 Ma):** *mafic to ultramafic intrusions including peridotite, dunite (1) and gabbro (2)*
1, sheeny black peridotite, rare dunite ***(Kluane-type Mafic-Ultramafics Gabbro-Diabase Sills)***
2, medium grey-green, massive, medium-grained, pyroxene gabbro and greenstone sills ***(Maple Creek gabbro)***

MIDDLE TRIASSIC
mTRH — **HOGE CREEK:** *dark grey to black siltstone and mudstone; locally limy; grey, thinly-bedded limestone* ***(Hoge Creek Fm)****; difficult to distinguish from parts of the Hasen Creek Fm*

LOWER PERMIAN
CPH — **SKOLAI - HASEN CREEK:** *fine-grained clastic rocks (1) and carbonate (2)*
1, interbedded dark grey and brown-weathered siltstone, mudstone and medium to coarse-grained sandstone; lower part contains volcaniclastic sandstone, tuff and rare basaltic flows; rare dark grey to black chert beds and chert-pebble conglomerate ***(Hasen Creek Fm)***

CPHC — *2, light to medium grey, massive to bedded limestone; locally fossiliferous; fossils include corals and crinoids* - CPHC

MISSISSIPPIAN TO PENNSYLVANIAN
CPS — **SKOLAI - STATION CREEK:** *volcanic rocks succeeded upward by clastic strata and including minor limestone*
1, undifferentiated Skolai Gp; includes variably metamorphosed and deformed Hasen Creek and Station Creek fms; meta-pelite, metavolcanic rocks and marble
2, dark green to black-weathered and fresh basalt flows, pillows, pillow breccia and hyaloclastite; red, magnetite-rich jasper found locally as interstitial material between pillows and within pillow breccia, thick accumulations of laterally persistent dark grey to black pillow basalt are rarely occur ***(Station Creek Fm)***
3, thinly bedded, laminated to massive chert interbedded with crystal tuff; chert is mainly light to dark grey-banded with local black and dark brown massive beds; tuff ranges from maroon to green, fine grained and laminated with phenocrysts of quartz ± plagioclase ***(Station Creek Fm)***
4, interbedded volcanic breccia, agglomerate and volcaniclastic sandstone; dominated by pyroxene-phyric volcanic breccia; rare light grey-weathered, dark green to black, fresh, pyroxene-phyric basalt flows ***(Station Creek Fm)***
5, laminated to thinly bedded, light grey to light green volcanic tuff and volcaniclastic siltstone; local crystal-rich tuff interbedded with fine-grained volcanic ash

PENNSYLVANIAN TO EARLY PERMIAN (AXp)
CPI — **ICEFIELD RANGES SUITE (308-285 Ma):** *medium to dark greenish-grey, medium-grained, nonfoliated and foliated, biotite hornblende quartz monzodiorite, quartz diorite, diorite, veined and intruded by leucocratic granite and quartz syenite (agmatite); pink hornblende syenite* ***(Icefield Ranges Suite)***

DEVONIAN TO UPPER TRIASSIC AND (?) OLDER (AX)
DTRI — **ICEFIELD:** *a grouping of diverse, dominantly upper Paleozoic partly equivalent strata subdivided into three dominant facies including pelitic rocks (1), carbonate (2) and volcanic rocks (3)*
1, thin to medium-bedded, fine to medium-grained, quartz-rich, micaceous, calcareous siltstone to sandstone, mica quartzite, or schist; minor interbedded phyllite, argillite and schist; rare limestone, marble, basic volcanic rocks, and gypsum-anhydrite
2, white to creamy-white gypsum and anhydrite; thin-bedded, massive, light grey to dark bluish-grey limestone or marble; minor dark grey calcareous argillite, calcareous siltstone-sandstone; local buff-grey crinoidal limestone
3, dark green (locally purple), porphyritic (augite) and non-porphyritic basaltic to andesitic flows and pillow lava; local volcaniclastic sediments, agglomerate, breccia, cherty tuff, grey limestone or marble, gypsum and basic intrusions

LATE DEVONIAN (AXp)
LDSC — **STEEL CREEK SUITE (ca. 364 Ma):** *massive medium to coarse-grained, rusty grey-green hornblende pyroxene gabbro, minor medium grained gabbro-diabase and gabbro-pegmatite intrusions; rare pods of black peridotite; screens of flows, volcaniclastics, tuff, rocks, minor argillite, and rare chert* ***(Mt. Cairnes Gabbro-Greenstone Complex; Steel Creek-Mt Constantine Gabbro Complex)***

AX (ALEXANDER)

SILURIAN AND DEVONIAN
SDB — **BULLION:** *a grouping of carbonate (1) and clastic (2) strata that may be in part equivalent*
1, massive to well-bedded light grey limestone or marble, thin-bedded dark grey limestone or marble; minor dark blue-grey calcareous argillite or phyllite ***(Bullion Creek Limestone)***
2, dark blue-grey argillite, phyllite, and minor greywacke siltstone-sandstone; upper part more calcareous, lower part more greywacke; locally may include massive limestone and greenstone

LOWER ORDOVICIAN TO DEVONIAN AND (?) OLDER
ODG — **GOATHERD:** *a grouping of carbonate (1) and clastic (2) strata that may be in part equivalent*
1, yellow to ochre-buff calcareous mudstone-siltstone, grey silty limestone and platy to thick-bedded, cryptocrystalline limestone; local well-bedded, siltstone; thick to massive-bedded limestone in upper parts of unit probably equivalent to SDB1 ***(Goatherd Mtn. assemblage)***
2, dull rusty-buff or green-grey greywacke siltstone-sandstone, and argillite or phyllite; minor grit; rarer limestone, pebble conglomerate, conglomerate; locally includes quartzite

CAMBRIAN TO ORDOVICIAN AND (?) YOUNGER
ЄOD — **DONJEK:** *greywacke-greenstone assemblage (1) with minor carbonate (2)*
1, massive to well-bedded, coarse to medium-grained greywacke; minor siltstone-sandstone, argillite, phyllite or schist, and basic intrusions; conglomerate, basic flows (some pillowed), pyroclastic rocks(?), and volcanic breccia; greenstone, amphibolite ***(N. Alsek Ranges Greywacke-Gabbro assemblage; Donjek Range Greywacke-Greenstone assemblage; Field Creek Volcanics)***

ЄODC — *2, light grey to rusty brown laminated silty limestone and limy siltstone, and well-bedded limestone or marble; minor greenstone* - ЄODC

TU (TAKU ?)

TRIASSIC - JURASSIC
uTRB — **BEAR CREEK:** *greenstone (1), metaclastic rocks (2) and local mélange unit (3)*
1, fine to medium-grained, strongly foliated to massive intermediate to mafic metavolcanic rocks; greenschist near fault zones; interlayered with metasedimentary rocks and thin carbonate horizons; locally pillowed
2, fine-grained meta-siltstone, mudstone and sandstone; phyllitic to schistose, locally more massive; abundant pyrite cubes observed in mudstone
3, foliated and faulted mélange-like assemblage of medium to dark green, medium to coarse-grained clastic or volcaniclastic rocks and lesser grey chert and mudstone, with local highly foliated, cm to dm scale, cream-coloured layers and lenses of more felsic composition (tuff?)

LATE TRIASSIC
LTRD — **DOGHEAD (ca. 205 Ma):** *variably serpentinized, deformed and metamorphosed peridotite, gabbro and plagiogranite occurring as klippe overlying Yukon-Tanana terrane, and as isolated metre to 0.5 km-scale lenses (boudin) within Kluane schist near Kluane Lake; gabbro and plagiogranite occur as deformed dikes cutting peridotite*

B

QUATERNARY (Qs)
Q — **QUATERNARY**: *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

UPPER CRETACEOUS (uKv)
uKC — **CARMACKS (DONJEK):** *volcanic succession dominated by basic volcanic strata (1), but including intermediate volcanic rocks (2) dominantly at the base of the succession, and locally, basal clastic strata (4) (ca. 72-68 Ma)*
1, augite olivine basalt and breccia; hornblende feldspar porphyry andesite and dacite flows; vesicular, augite phyric andesite and trachyte; minor sandy tuff, granite boulder conglomerate, agglomerate and associated epiclastic rocks ***(Carmacks Gp, Little Ridge Volcanics, Casino Volcanics)*** *- uKCv*
2, andesite, porphyry - uKCa
4, medium-bedded, poorly sorted, coarse to fine-grained sandstone, pebble conglomerate, shale, tuff, and coal; massive to thick-bedded locally derived granite or quartzite pebble to boulder conglomerate ***(Carmacks Gp, Colorado Creek conglomerate)*** *- uKCs*

JURASSIC (TRJs)
JLmr — **MACAULEY RIDGE:** *poorly sorted, medium-bedded to massive arkosic sandstone and minor shale with interbeds and thick members of resistant heterolithic pebble and boulder conglomerate; recessive, dark brown weathering, thin bedded, dark brown to greenish, silty shale* ***(Macauley Ridge fm near Beaver Creek; probable equivalent of Laberge Gp)*** *- JLmr*

MIDDLE TO UPPER TRIASSIC
TRMC — **MIRROR CREEK:** *brown to buff weathering, calcareous fine-grained sandstone, argillite and shale; extensive ripple cross-lamination and bioturbation; massive, light grey weathering, fine crystalline, dark grey limestone; minor orange weathering platy limestone* ***(correlated with Jones Lake Fm northeast of Tintina fault)***

NA (PARAUTOCHTHONOUS NORTH AMERICA ?)

TRIASSIC
TRGs — **SNAG CREEK SUITE (232-226 Ma):** *massive, medium-grained hornblende gabbro and pyroxenite sills* ***(correlated with coeval sills of the Galena suite northeast of Tintina fault)***

DEVONIAN AND MISSISSIPPIAN
DMw — **WHITE RIVER:** *black carbonaceous and siliceous phyllite and schist (1), and intercalated felsic to mafic metavolcanic rocks (2); extensively intruded by gabbro of the Snag Creek suite (TRGs)* ***(correlative with Earn Gp northeast of Tintina fault (?) and Totatlanika schist in eastern Alaska)***
1, carbonaceous muscovite-quartz phyllite, grey psammitic schist, and quartzite - DMws
2, felsic to mafic metavolcanic schist; quartz and/or feldspar-augen felsic schist; mafic schist locally amygdaloidal - DMwv

LDMB — **MOUNT BAKER SUITE (ca. 365 Ma):** *metaplutonic suite dominated by orthogneiss of intermediate (g) to mafic (y) compositions*
g, strongly foliated to gneissic granodiorite, diorite and monzogranite
y, strongly foliated to gneissic diorite, gabbro and minor pyroxenite

ORDOVICIAN TO DEVONIAN
ODs — **SCOTTIE CREEK:** *quartzose psammite, pelitic schist and minor marble (1); locally migmatized (2); north of Beaver Creek* ***(correlative with Lake George assemblage in east-central Alaska)***
1, grey to white quartzite, micaceous quartzite and psammitic quartz-muscovite-biotite ± garnet schist; local metaconglomerate - ODS
2, layered paragneiss with mica-rich melanosome and garnet-bearing quartzofeldspathic leucosome - ODSmm

C

QUATERNARY (Qs)
Q — **QUATERNARY**: *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

TERTIARY(?) AND QUATERNARY (TQv)
TQs — **SELKIRK:** *resistant, brown weathering, columnar jointed, vesicular to massive basalt flows; minor pillow basalt; basaltic tuff and breccia* ***(Selkirk Volcanics)***

PLIOCENE (Tvs)
Pw — **WALSH:** *undivided felsic volcanic rocks (1) and conglomerate, sandstone, and mudstone (2)*
1, resistant, white weathering, massive rhyolite ***(Walsh Creek fm)***
2, resistant, thick-bedded to massive, well-indurated conglomerate with minor interbedded sandstone; white mudstone with interbedded gritty sandstone and minor coal ***(Walsh Creek fm)***

MIOCENE TO PLIOCENE
MPMC — **MILES CANYON:** *dark red to brown weathering, columnar jointed olivine basalt flows, commonly amygdaloidal and vesicular; ultramafic xenoliths* ***(Miles Canyon Basalt)***

EOCENE (Ep)
EH — **HAYDEN LAKE SUITE (48-45 Ma):** *salt and pepper, light and dark grey, hornblende, ± biotite diorite to quartz diorite; massive, medium to coarse-grained; rare gabbro; garnet common as crystals 1-10 mm in size*

PALEOCENE TO LOWER EOCENE (Pv)
PRC — **RHYOLITE CREEK (ca. 57 Ma):** *felsic (1), intermediate (2) and minor mafic (3, 4) volcanic rocks, basal conglomerate (5)*
1, light grey, green, maroon, purple and black rhyolite and dacite; locally flow banded; commonly a breccia with clasts of rhyolite within a crystal-rich matrix; may include intrusive equivalents
2, maroon to reddish purple (weathered and fresh), fine to very coarse grained andesite, breccia with clasts of feldspar-rich andesite in a matrix of the same composition; locally includes feldspar porphyry dikes of andesitic composition
3, dark grey to black weathered, very fine grained basalt, geographically limited to areas east of Porphyry Peak
4, undifferentiated Rhyolite Creek volcanic complex; andesite and dacite-rhyolite flows and breccia; minor basalt and basalt breccia
5, basal conglomerate/breccia; rounded to angular clasts of underlying metamorphic rocks within a sandy volcaniclastic matrix

PALEOCENE (Pp)
PR — **RUBY RANGE SUITE (ca. 64-57 Ma):** *medium to coarse-grained equigranular to porphyritic rocks of intermediate composition (g), locally gneissic (gn); fine to coarse-grained, equigranular and porphyritic granitic rocks of felsic composition (q) and felsic dike rocks (f); gabbro (gb))*
f, orange and buff weathering light-coloured feldspar porphyry dike and flow rocks of intermediate to acidic composition - PfR
g, biotite-hornblende granodiorite (locally K-feldspar megacrysts), quartz monzonite, quartz diorite; hornblende and biotite hornblende diorite; biotite quartz feldspar porphyry and porphyritic biotite quartz monzonite ***(Ruby Range batholith)*** *- PgR*
q, leucocratic, biotite granite; miarolitic alaskite; saccharoidal textured, mafic-poor biotite granite; biotite-hornblende granite to leucocratic granodiorite with sparse, white, alkali feldspar megacrysts; biotite quartz monzonite ***(Annie Ned granite)*** *- PqR*
gb, gabbro - PgbR
gn, granodiorite gneiss - PgnR

UPPER CRETACEOUS (uKv)
uKC — **CARMACKS:** *volcanic succession dominated by basic volcanic strata (1), but including intermediate (2) and locally felsic volcanic rocks (3) dominantly at the base of the succession, and locally, basal clastic strata (4); rare gabbro (5) (ca. 72-68 Ma)*
1, augite-olivine basalt and breccia; hornblende feldspar porphyry andesite and dacite flows; vesicular, augite phyric andesite and trachyte; minor sandy tuff, granite boulder conglomerate, agglomerate and associated epiclastic rocks ***(Carmacks Gp, Little Ridge Volcanics, Casino Volcanics)*** *- uKCv*
2, andesite, porphyry - uKCa
3, acid vitric crystal tuff, lapilli tuff and welded tuff including feeder plugs and necks; felsic volcanic flow rocks and quartz feldspar porphyries; green and purple massive tuff-breccia with feldspar phyric fragments ***(Carmacks Gp, Donjek Volcanics, some rocks formerly mapped as Mt. Nansen Gp;*** *the felsic part of the Carmacks Gp is difficult to distinguish from similar Tertiary and mid-Cretaceous (Mt. Nansen) felsic volcanic strata) - uKCf*
4, medium-bedded, poorly sorted, coarse to fine-grained sandstone, pebble conglomerate, shale, tuff, and coal; massive to thick-bedded locally derived granite or quartzite pebble to boulder conglomerate ***(Carmacks Gp; Colorado Creek Conglomerate)*** *- uKCs*
5, gabbro and monzonite bodies near Carmacks - uKCg

uKT — **TLANSANLIN:** *fine-grained basalt and basaltic andesite; plagioclase and hornblende-phyric andesite, dacite; welded lapilli tuff (ca. 78-74 Ma)*

uKW — **WINDY-TABLE:** *resistant, columnar jointed, quartz-phyric dacite flows, ash and lapilli tuff; maroon weathering, basal sedimentary and epiclastic rocks; dacite flows and flow breccia; brown basalt flows; includes dikes of quartz feldspar porphyry (ca. 85-80 Ma)* ***(Open Creek Volcanics)***

LATE CRETACEOUS (LKp)
LKP — **PROSPECTOR MOUNTAIN SUITE (72-68 Ma):** *grey, fine to coarse-grained, massive, granitic rocks of felsic (q) intermediate (g) rarely mafic (d) composition and related felsic dikes (f)*
d, coarsely crystalline gabbro and diorite
g, hornblende-biotite granodiorite, hornblende diorite, quartz diorite ***(Wheaton Valley granodiorite; Katrina Creek suite)***
y, syenite
f, quartz-feldspar porphyry

LKC — **CASINO SUITE (79-74 Ma):** *grey, fine to coarse-grained, massive, granitic rocks of intermediate (g) composition and related felsic dikes (f)*
g, hornblende-biotite granodiorite, hornblende diorite, quartz diorite ***(Wheaton Valley granodiorite)***
q, quartz monzonite, biotite quartz-rich granite; porphyritic alaskite and granite with plagioclase and quartz-eye phenocrysts; biotite and hornblende quartz monzodiorite, granite, and leucocratic granodiorite with local alkali feldspar phenocrysts ***(Prospector Mountain Suite, Carcross pluton)***
f, quartz-feldspar porphyry

LKg — **UNDIVIDED GRANITOID - COAST MOUNTAINS:** *fine to coarse-grained granitic rocks of intermediate (gd) composition and probaly related orthogneiss*
gd, fine to coarse-grained hornblende diorite to tonalite with abundant garnet; locally grading into garnet amphibolite; gabbro
gn, medium to coarse-grained, mylonitic to weakly deformed, biotite, quartz ± garnet, orthogneiss; dark grey weathered, dark and light grey banded fresh; commonly interlayered with biotite schist or amphibolite of Snowcap assemblage (YT); inferred Late Cretaceous, but could be as old as Permian (?)

KS (KLUANE)

MESOZOIC
KK — **KLUANE SCHIST:** *dark purplish brown staurolite cordierite biotite hornfels with relict schistose texture; quartz-sericite-chlorite schist; minor quartzite* ***(Kluane Schist)***
1, undifferentiated Kluane Schist
2, dark grey to black, fine-grained, quartz-biotite schist; local garnet and plagioclase porphyroblasts
3, light to dark grey, fine-grained, quartz-muscovite schist; variably carbonaceous; rare light grey carbonate lenses may be part of Snowcap or Finlayson assemblages of Yukon-Tanana terrane
4, gneissic equivalents of Kluane Schist and undifferentiated Yukon-Tanana terrane; migmatite, paragneiss and orthogneiss near the lower contact between Ruby Range batholith and Kluane Schist

(TRKs)
TRKB — **BLANCHARD RIVER:** *metasedimentary schist and paragneiss in the Coast plutonic complex*
1, medium to coarse-grained, orange weathered, dark grey to black, biotite-quartz-feldspar ± kyanite-sillimanite paragneiss; fine-grained, banded grey to dark grey metasedimentary rocks
2, fine to medium-grained, garnet-biotite schist and metasedimentary rocks; brown to rusty weathered, dark grey fresh; layers variably richer in quartz or biotite; may result from low-grade metamorphism of part of the Dezadeash Fm

LOWER CRETACEOUS (mKs,v)
mKN — **MOUNT NANSEN:** *massive aphyric or feldspar-phyric andesite to dacite flows, breccia and tuff; massive, heterolithic, quartz and feldspar-phyric, felsic lapilli tuff; flow-banded quartz-phyric rhyolite and quartz-feldspar porphyry plugs, dikes, sills and breccia* ***(Mount Nansen Gp, Byng Creek Volcanics, Hutshi Gp)***

lKIR — **INDIAN RIVER:** *clast-supported pebble to cobble conglomerate with clasts of vein quartz and foliated quartzite; coarse-grained sandstone; minor tuff*

EARLY CRETACEOUS (mKp)
mKW — **WHITEHORSE SUITE (112-98 Ma):** *grey, medium to coarse-grained, generally equigranular granitic rocks of felsic (q), intermediate (g), locally mafic (d) and rarely syenitic (y) composition*
d, hornblende diorite, biotite-hornblende quartz diorite and mesocratic, often strongly magnetic, hypersthene-hornblende diorite, quartz diorite and gabbro ***(Whitehorse Suite, Coast Intrusions)***
g, biotite-hornblende granodiorite, hornblende quartz diorite and hornblende diorite; leucocratic, biotite hornblende granodiorite locally with sparse grey and pink potassium feldspar phenocrysts ***(Whitehorse Suite, Casino granodiorite, McClintock granodiorite, Nisling Range granodiorite)***
q, biotite quartz-monzonite, biotite granite and leucogranite, pink granophyric quartz monzonite, porphyritic biotite leucogranite, locally porphyritic (K-feldspar) hornblende monzonite to syenite, and locally porphyritic leucocratic quartz monzonite ***(Mt. McIntyre, Whitehorse plutons, Casino intrusions, Mt. Ward granite, Coffee Creek granite)***

(EKp)
EKT — **TESLIN SUITE (123-115 Ma):** *leucocratic, fine to coarse-grained, equigranular, hornblende-biotite granite, granodiorite, quartz monzonite and quartz monzodiorite, locally with sparse grey and pink potassium feldspar phenocrysts; associated aplitic phases and dikes* ***(Deadman Creek batholith)***

UPPER JURASSIC AND LOWER CRETACEOUS (JKs)
JKT — **TANTALUS:** *massive to thickly bedded chert pebble conglomerate and gritty quartz-chert-feldspar sandstone; interbedded dark grey shale, argillite, siltstone, arkose and coal; at one locality includes red-weathering dacite to andesite flows at base* ***(Tantalus Fm)*** *-*

MIDDLE JURASSIC (MJp)
MJM — **McGREGOR SUITE (163-160 Ma):** *variably foliated granitoid rocks of predominantly intermediate composition (g)*
g, weakly foliated to undeformed, medium to coarse-grained, equigranular to K-feldspar porphyritic, hornblende-biotite (± epidote) granodiorite and quartz monzonite; aplite ***(McGregor pluton)***

MJB — **BRYDE SUITE (172-168 Ma):** *undeformed granitic rocks of predominantly felsic (q) and intermediate composition (g); rare syenite (y)*
q, medium to fine-grained, equigranular, leucocratic monzonite, syenite and granite and related dikes of dacite to andesite porphyry with euhedral andesine, hornblende and locally quartz in aphanitic greenish, or grey groundmass ***(Teslin Crossing stock)***
g, medium-grained, hornblende monzodiorite, hornblende-biotite quartz monzodiorite and minor hornblendite; pink, potassium feldspar megacrystic, biotite-hornblende granite to granodiorite and associated easterly trending mafic dike swarms ***(Mt. Bryde pluton; Bennett granite)***
y, coarse-grained to pegmatitic phlogopite-muscovite syenite ***(Marsh Lake pluton)***

LOWER TO MIDDLE JURASSIC, HETTANGIAN TO BAJOCIAN (lmJs (WHITEHORSE TROUGH))
JLr — **LABERGE:** *predominantly turbiditic sandstone-siltstone-mudstone in the south (1) passing to shallow-marine sandstone-shale-conglomerate in the north (2)*
1, well-bedded, turbiditic sandstone-siltstone-mudstone; dark weathering, massive to finely laminated mudstone and limy mudstone; thick-bedded to massive lenses of polymictic cobble to boulder conglomerate; lithic sandstone; minor limestone ***(Laberge Gp, Richthofen fm)*** *- JLr*
JLt — *2, poorly sorted, medium-bedded to massive arkosic sandstone and minor shale with interbeds and thick members of resistant heterolithic pebble and boulder conglomerate; recessive, dark brown weathering, thin-bedded, dark brown to greenish, silty shale* ***(Laberge Gp, Tanglefoot fm)*** *- JLt*

LOWER JURASSIC, PLEINSBACHIAN TO TOARCIAN
lJN — **NORDENSKIOLD:** *resistant, reddish brown weathering, massive, khaki-green dacite crystal tuff and volcaniclastic sandstone, with fresh plagioclase, hornblende and biotite; grades locally to pale green, punky weathering, salt and pepper textured, massive lithic sandstone; interbedded conglomerate* ***(Nordenskiold dacite)***

CC (CACHE CREEK)

MIDDLE TRIASSIC TO LOWER JURASSIC (CC (mTRlJs))
mTRlJC — **CACHE CREEK:** *well bedded ribbon chert interbedded with shale, siltstone and greywacke* ***(Cache Creek Gp; equivalent in part to Laberge Gp)***

MIDDLE TRIASSIC
mTRK — **KUTCHO:** *dark grey, fine-grained siltstone; buff, coarse-grained calc-lithic sandstone; green-grey wacke to pebble polymictic orthoconglomerate; fine-grained siltstone locally interbedded with thin, argillaceous limestone beds; carbonate-rich debris flows and rare olistoliths(?)* ***(Michie fm)***

CARBONIFEROUS TO TRIASSIC
CTRC — **CACHE CREEK:** *oceanic assemblage of ultramafic rocks (1), volcanic rocks (2), carbonate (3) and ribbon chert (4)*
CTRcum — *1, dark rusty to dun brown weathering, strongly magnetic, variably tectonized, serpentinized and chloritized ultramafic rocks including medium to coarse-grained hornblende-pyroxene diorite gabbro, peridotite, dunite, serpentinite, and pyroxenite* ***(Cache Creek Gp, Nahlin complex)*** *- CTRcum*
2, andesitic and basaltic spherulitic greenstone, locally pillowed; aphanitic, tuffaceous(?) greenstone with clasts of limestone and chert; altered volcanic rocks with numerous serpentine bodies; massive, fine-grained metabasite and hornblende diorite ***(Cache Creek Gp, Nakina Fm)*** *- CTRcv*
CTRcc — *3, massive, finely crystalline, locally crinoidal and fusiline grey limestone; limestone breccia; massive to poorly bedded, medium-grained, recrystallized white to pale yellow limestone and crinoidal bioclastic limestone; rare dolostone* ***(Cache Creek Gp, Horsefeed Fm)*** *- CTRcc*
4, resistant, well-bedded, thin-bedded, grey, black, red and brown chert, with lesser cherty sandstone and siltstone; minor thin limestone beds and pillow lava ***(Cache Creek Gp, Kedahda Fm)*** *- CTRcs*
5, light grey to grey-green, medium to coarse-grained to porphyritic gabbronorite; medium-grained clinopyroxenite; fine to medium-grained diorite; olivine-phyric diabase ***(Marsh Lake complex)***

EARLY JURASSIC (EJp (ST, QN, YT))
EJL — **LONG LAKE SUITE (192-178 Ma):** *intermediate (g) to felsic (q) granitoid rocks*
g, medium to coarse-grained, massive to weakly foliated biotite-hornblende granodiorite, with local K-feldspar megacrysts
q, massive to weakly foliated, fine to coarse-grained biotite, biotite-muscovite and biotite-hornblende quartz monzonite to granite, including abundant pegmatite and aplite phases; commonly K-feldspar megacrystic ***(Aishihik batholith)***
y, resistant, dark weathering, massive, coarse to very coarse grained and porphyritic, mesocratic hornblende syenite; locally sheared, commonly fractured and saussuritized; locally has well developed layering of aligned pink K-feldspar tablets ***(Big Creek syenite)***

LATE TRIASSIC - EARLY JURASSIC
LTREJM — **MINTO SUITE (204-194 Ma):** *mostly intermediate (g) to felsic (q) granitoid rocks but locally grading to syenite (y) or diorite (gb)*
g, medium to coarse-grained, foliated biotite-hornblende granodiorite; biotite-rich screens and gneissic schlieren; foliated hornblende diorite to monzodiorite with local K-feldspar megacrysts ***(Minto, Granite Mountain, Tatchun plutons)***
q, massive to weakly foliated, fine to coarse-grained biotite, biotite-muscovite and biotite-hornblende quartz monzonite to granite, including abundant pegmatite and aplite phases; commonly K-feldspar megacrystic
gb, hornblende gabbro; locally pegmatitic

MESOZOIC (STp)
Mg — **UNDIVIDED MESOZOIC GRANITOIDS:** *poorly described granitic rocks of uncertain age including diorite, quartz monzonite, and monzonite; also in Quesnellia (QN)*

LATE TRIASSIC
LTRs — **STIKINE SUITE (216-206 Ma):** *coarse-grained, foliated, gabbroic hornblende orthogneiss; coarse-grained hornblende-biotite granite and granodiorite with K-feldspar megacrysts; fine-grained, foliated hornblende quartz diorite to diorite with minor biotite* ***(Tally Ho leucogabbro, Friday Creek diorite, King Lake granite)***

ST (STIKINIA)

UPPER TRIASSIC, CARNIAN TO NORIAN
uTRAc — **AKSALA:** *mixed clastic-carbonate assemblage divisible into three dominant facies including calcareous greywacke (1), locally thick carbonate (2) and red-coloured clastic rocks (3)* ***(Lewes River Gp, Aksala fm)***
1, brown shale, black and minor red siltstone, greenish, calcareous greywacke and interbedded bioclastic, argillaceous limestone; igneous or limestone-clast pebble and cobble conglomerate; lahar debris flows; rare feldspar-augite porphyry flows ***(Casca mb of Aksala fm)*** *- uTRAc*
uTRAh — *2, massive to thick-bedded limestone; minor thin-bedded argillaceous to sooty limestone; coarsely crystalline, massive dolostone; minor laminated chert; massive to poorly bedded, limestone conglomerate debris flows and fanglomerate* ***(Hancock mb of Aksala fm)*** *- uTRAh*
uTRAm — *3, red weathering, medium-bedded, green and red greywacke and pebble conglomerate; red shale partings and minor interbedded, red, bioturbated siltstone; crystal-rich greywacke and shale; coarse-grained, tan to brown, massive, lithic arenite* ***(Mandanna mb of Aksala fm)*** *- uTRAm*

UPPER TRIASSIC, CARNIAN AND OLDER (?)
uTRP — **POVOAS:** *augite or feldspar phyric, locally pillowed andesitic basalt flows, breccia, tuff, sandstone and argillite; local dacitic breccia and tuff with minor limestone; greenschist, chlorite schist, chlorite-augite-feldspar gneiss, amphibolite* ***(Lewes River Gp, Povoas fm)***

MIDDLE TRIASSIC
mTRJ — **JOE MOUNTAIN:** *basalt (1) and subvolcanic mafic intrusion (2)*
1, massive basalt flows; fine to locally medium-grained feldspar and pyroxene?-phyric, pillowed andesite; variably altered massive microdiorite; heterolithic diamictite ***(Joe Mountain fm)*** *- mTRJ*
mTRdJ — *2, coarse-grained and locally pegmatitic, hornblende gabbro and diorite - mTRdJ*

UPPER PALEOZOIC
uPT — **TAKHINI:** *variably sheared and metamorphosed metabasite, amphibolite gneiss, tuff, wacke and marble with minor quartz mica schist and orthogneiss*

C

QN (QUESNELLIA)

UPPER TRIASSIC TO LOWER JURASSIC
uTRJs — **SEMENOF:** *augite-phyric basalt, andesite and volcaniclastic rocks (1), minor carbonate (2), shale sandstone and volcaniclastic rocks (3)*
1, augite-phyric basalt flow and agglomerate, andesite; minor(?) augite-feldspar crystal tuff; minor volcanic breccia with clasts of augite (feldspar) porphyry ***(Semenof fm)*** *- uTRJsv*
uTRJsc — *2, limestone; conglomerate - uTRJsc*
3, augite-bearing sandstone and lesser siltstone and mudstone, possibly resedimented pyroclastic deposits ***(equivalent to Shonektaw Fm, northern B.C.)*** *- uTRJss*
4, poorly exposed, chloritized Hbl-Aug diorite and gabbro near Teslin - uTRJsd
5, dunite, minor pyroxenite - uTRJum

LOWER AND MIDDLE PENNSYLVANIAN
uCB — **BOSWELL:** *assemblage of recessive mixed clastic strata and minor volcanic rocks (1), altered mafic volcanic rocks and minor gabbro (2), limestone (3); possibly equivalent to the Klinkit assemblage of Yukon-Tanana?*
1, recessive, dark weathering, siliceous argillite, siltstone, arkosic sandstone, chert pebble to boulder conglomerate and breccia, volcanic breccia ***(Boswell fm)*** *- uCBs*
2, resistant, massive, dark green, altered basalt, volcanic breccia and greenstone; amphibolite; foliated volcanic lithic sandstone; local rhyodacite porphyry and breccia ***(Boswell fm)*** *- uCBv*
uCBc — *3, white weathering, massive to thick-bedded, resistant, grey, micritic limestone; bioclastic limestone; marble* ***(Boswell fm)*** *- uCBc*

LATE MISSISSIPPIAN TO PENNSYLVANIAN (QNp)
PgK — **KELLY SUITE (335-310 Ma):** *strongly foliated, dark grey to dark green, fine to medium-grained, equigranular hornblende ± biotite tonalite; hornblende diorite to granodiorite*

UPPER DEVONIAN TO LOWER MISSISSIPPIAN (QN)
uDMM — **MOOSE:** *mafic volcanic rocks (1), carbonate (2), intermediate volcanic rocks (3), basal conglomerate and sandstone (4), local rhyolite (5)*
1, dark green, fine-grained massive and pillow basalt; medium-grained plagioclase-phyric diorite; dark green to black biotite amphibolite and greenstone; garnet amphibolite; plagioclase-phyric greenstone; white marble; locally, coarse-grained, altered pyroxenite; serpentinite ***(Moose fm)*** *- uDMMv*
uDMMc — *2, light grey massive limestone; medium to coarse-grained, white and grey streaky marble* ***(Moose fm)*** *- uDMMc*
3, intermediate metavolcanic and metavolcaniclastic rocks - uDMMa
4, green conglomeratic sandstone with volcanic and sedimentary clasts - uDMMs
5, rusty weathering, pink quartz-feldspar-phyric rhyolite - uDMMf

JURASSIC (PTRJs)
JFP — **FARO PEAK:** *conglomerate (1), sandstone, argillite (2), shale, limestone (3), and minor basalt (4)*
1, resistant, massive polymictic conglomerate; clasts include quartzite, chert, limestone and serpentinite; detrital micas in matrix ***(Faro Peak fm)***
2, interbedded cherty argillite, chert, sandstone and mafic greywacke and conglomerate
3, dark grey carbonaceous, locally calcareous, shale and siltstone interbedded with medium to dark grey micritic limestone ***(Faro Peak fm)***
4, massive, dark green aphanitic basalt ***(may be equivalent to Campbell Range fm, Slide Mountain terrane)***

MIDDLE PERMIAN TO TRIASSIC
PTRSL — **SIMPSON LAKE:** *synorogenic conglomerate, sandstone (1), basalt (2), felsic volcanic rocks (3), and minor limestone (4)* ***(Simpson Lake gp)***
1, red-brown to pale green polymictic conglomerate, pale green sandstone, dark grey siltstone and shale - PTRSLs
2, massive, aphanitic basalt - PTRSLv
3, rare felsic volcanic rocks, middle to late Permian - PTRSLf
PTRSLc — *4, minor limestone - PTRSLc*

YT (YUKON-TANANA)

MIDDLE TO LATE PERMIAN
PS — **SULPHUR CREEK (ca. 264-252 Ma):** *variably folitated granitoids of felsic (q) to intermediate (g) composition*
q, variably foliated, K-feldspar augen granite, metaporphyry; coarse-grained, homogeneous, hornblende-biotite-bearing granite ***(Sulphur Creek orthogneiss)***
g, granodiorite and quartz monzonite ***(Sulphur Creek orthogneiss, Ram stock)***

MIDDLE TO UPPER PERMIAN
PK — **KLONDIKE:** *felsic metavolcanic rocks (1) intercalated with metaclastic rocks (2) and minor intermediate to mafic metavolcanic rocks (3)*
1, tan to rusty and black weathering quartz-muscovite-chlorite schist; quartz and/or feldspar augen quartz-muscovite (chlorite) schist; locally includes augen gneiss ***(Klondike Schist)*** *- Pkf*
2, silvery grey muscovite-chlorite quartz phyllite, muscovitic and/or chloritic micaceous quartzite - Pks
3, light to medium green chlorite schist and phyllite; amphibolite - Pkv

MIDDLE MISSISSIPPIAN TO LOWER PERMIAN
CK — **KLINKIT:** *mafic to intermediate volcanic rocks (1), carbonate (2), clastic rocks (3) and exhalite (4)*
1, mafic to intermediate metavolcaniclastic and metavolcanic rocks; minor alkali metabasalt; marble; minor felsic metavolcanic rocks, quartz-muscovite schist ***(Klinkit Gp, including Little Salmon, Money Creek, White Lake, King Arctic fms)*** *- CKv*
CKc — *2, limestone, marble, locally fossiliferous* ***(Screw Creek, Little Salmon, Whitefish limestones)*** *- CKc*
3, arkosic sandstone, basal polymictic metaconglomerate - CKs
CKe — *4, red and green chert, exhalite - CKe*

LATE MISSISSIPPIAN
MqT — **TATLMAIN SUITE (340-336 Ma):** *mainly granite (q), granodiorite (g), minor gabbro (gb)*
q, variably foliated to unfoliated, coarse-grained granite ***(Tatlmain batholith)***
g, medium-grained hornblende quartz diorite, tonalite; hornblende-biotite granodiorite
gb, medium to coarse-grained hornblende gabbro

UPPER DEVONIAN TO LOWER MISSISSIPPIAN
DMF — **FINLAYSON:** *assemblage of mafic (1) to felsic (2) metavolcanic rocks of arc and back-arc affinities; carbonaceous pelite, metachert (3); minor quartzite, metavolcaniclastic rocks (4); marble (5); ultramafic rocks and metagabbro (6)*
DMFv — *1, medium to dark green intermediate to mafic volcanic and volcaniclastic rocks; fine-grained amphibolite and greenstone* ***(Little Kalzas, Ram Creek, Cleaver Lake, Tutchitua, Fire Lake fms; Big Salmon complex)*** *- DMFv*
2, felsic metavolcanic rocks, white quartz-muscovite schist, metaporphyry ***(Kudz Ze Kayah, Wolverine, Waters Creek fms)*** *- DMFf*
DMFbp — *3, dark grey to black carbonaceous metasedimentary rocks, metachert* ***(Nasina, Swift River, Grass Lakes, Wolverine fms)*** *- DMFbp*
4, light green to grey, fine-grained siliciclastic and metavolcaniclastic rocks; arkosic grit and sandstone; chert and minor limestone ***(Drury, Pelmac, Little Kalzas, Tutchitua fms; Big Salmon complex)*** *- DMFs*
DMFc — *5, light grey to white marble, locally crinoidal* ***(Little Kalzas fm)*** *- DMFc*
DMFum — *6, ultramafic rocks, serpentinite; metagabbro* ***(Fire Lake fm)*** *- DMFum*

EARLY MISSISSIPPIAN
MSR — **SIMPSON RANGE SUITE (ca. 355-345 Ma):** *foliated granitoid of mainly granodiorite to tonalite composition (g), locally granite and augen granite (q), rare gabbro (gb)*
g, foliated to strongly foliated, fine to medium-grained, hornblende-bearing metagranodiorite, metadiorite and metatonalite
q, foliated megacrystic, quartz monzonite and granodiorite; augen granite
gb, locally, metagabbro

LATE DEVONIAN TO EARLY MISSISSIPPIAN
DMG — **GRASS LAKES SUITE (ca. 365-357 Ma):** *mainly augen granite (q), granodiorite (g); locally syenite and quartz monzonite (y)*
q, foliated, coarse-grained, K-feldspar-augen metagranite
g, fine to medium-grained, foliated granodiorite, granite, quartz monzonite
y, locally, unfoliated, coarse-grained to pegmatitic syenite, quartz monzonite ***(Ragged pluton)***

UPPER DEVONIAN AND OLDER
PDs — **SNOWCAP:** *assemblage of dominantly metasiliciclastic rocks (1); minor marble (2), mafic metavolcanic rocks (3) and ultramafic rocks (4); intruded by Devonian-Mississippian calc-akaline plutons of the Grass Lakes and Simpson Range suites; locally metamorphosed to blueschist and eclogite facies (5))*
1, polydeformed and metamorphosed quartzite, psammite, pelite and marble; minor greenstone and amphibolite ***(Snowcap, Dorsey, part of Big Salmon complexes; North River fm)*** *- PDss*
PDsc — *2, light grey to buff weathering marble, generally lenticular and discontinuous - PDsc*
PDsv — *3, medium to coarse-grained amphibolite, commonly garnet-bearing; greenstone; minor marble* ***(Snowcap, Dorsey complexes)*** *- PDsv*
PDsum — *4, ultramafic rocks, serpentinite; metagabbro; metapyroxenite* ***(Dorsey complex)*** *- PDsum*
PDse — *5, metasiliciclastic and mafic meta-igneous rocks locally metamorphosed to eclogite, blueschist (Quiet Lake, Faro-Ross River, Simpson Lake) - PDse*

SM (SLIDE MTN)

UPPER DEVONIAN TO LOWER PERMIAN
CPSM — **SLIDE MOUNTAIN:** *oceanic assemblage of chert, argillite, minor sandstone and conglomerate (1,3), basalt (2), serpentinite (4), gabbro (5), rare felsic metavolcanic rocks (6)*
CPSMs — *1, variably deformed, dark grey to black carbonaceous phyllite, chert and argillite; grey, green and white chert; minor chert-sandstone and pebble conglomerate; locally feldspar grit; rare limestone, dolostone; mafic metavolcanic rocks* ***(Fortin Creek gp)*** *- CPSMs*
2, dark green to black basalt, greenstone, locally pillowed; hyaloclastite; generally weakly deformed and metamorphosed ***(Campbell Range fm)*** *- CPSMv*
3, grey, red and green chert and argillite; local dolostone, sandstone ***(Campbell Range fm)*** *- CPSMc*
4, brown weathering, dark green to black, variably serpentinized ultramafic rocks; metapyroxenite, dunite; harzburgite - CPSMum
5, medium to coarse-grained gabbro; quartz monzonite; locally rodingite - CPgbSM
6, muscovite-quartz phyllite, augen schist ***(felsic metavolcanic rocks in Fortin Creek gp)*** *- CPSMf*
7, leucogabbro, gabbro, diabase; rare plagiogranite - CPlgSM

D

QUATERNARY (Qs)
Q — **QUATERNARY**: *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

EOCENE (Tp)
EBR — **BLACK RIVER SUITE (49-47 Ma):** *peraluminous, sub-porphyry to medium-grained, K-feldspar-phyric, biotite (± trace muscovite) monzogranite and leucogranite*

LATE CRETACEOUS (LKp)
LKR — **RANCHERIA SUITE (82-77 Ma):** *medium to coarse-grained granitoid of intermediate (g) to felsic (q) compositions*
q, medium to coarse-grained, equigranular biotite–muscovite leucogranite and monzogranite
g, medium-grained, equigranular biotite granodiorite, tonalite, monzogranite (± muscovite); coarse-grained biotite monzogranite with 1-5 cm K-feldspar megacrysts; quartz feldspar porphyry, aplite and kersantite dikes

MID-CRETACEOUS (mKp)
mKS — **SEAGULL SUITE (103-94 Ma):** *fine to medium-grained equigranular biotite (± muscovite) leucogranite to monzogranite; variable textures and grain-sizes; locally partially developed rapakivi; minor stocks of lepidolite–(zinnwaldite)–albite–topaz leucogranite with fluorite* ***(Seagull batholith)***

mKC — **CASSIAR SUITE (117-104 Ma):** *medium to coarse-grained, equigranular to porphyritic rocks of largely felsic (q) composition; includes minor amounts of more intermediate composition (g)*
g, oxidized, magnetite-rich, biotite ± hornblende ± titanite-bearing monzogranite to granodiorite; minor quartz monzodiorite
q, medium to coarse-grained, equigranular to porphyritic (K-feldspar), reduced, ilmenite-bearing, biotite ± muscovite monzogranite and leucogranite

CA (CASSIAR)

UPPER TRIASSIC
TRJ — **JONES LAKE - CASSIAR:** *dark grey and brown fine-grained siliciclastic rocks (1), minor limestone (2) and feldspathic wacke, conglomerate and tuff (3)*
1, brown to buff weathering, calcareous siltstone, shale, and fine sandstone, commonly finely cross-laminated and locally bioturbated
2, dark grey and buff weathering, recessive, thin bedded, locally bioclastic limestone and interbedded sandy or silty limestone; locally orange weathering platy limestone
3, greenish-grey coarse-grained feldspathic wacke; polymictic pebble conglomerate and very coarse sandstone; crystal lithic tuff (could be correlative with Middle Permian to Triassic Simpson Lake group northeast of Tintina fault)

CARBONIFEROUS
MT — **TAY - CASSIAR:** *dark brown, thin-bedded shale and buff-yellow calcareous siltstone, fine-grained sandstone, and medium beds of black finely crystalline argillaceous limestone; strongly bioturbated*

LATE DEVONIAN (CAp)
DyP — **PELLY MOUNTAINS SUITE (ca. 375-365 Ma):** *resistant, massive, medium to fine-grained equigranular syenite; magmatic hornblende replaced by actinolite, but K-feldspar is fresh perthite; gradational to trachyte; intrusive equivalents to felsic volcanic rocks of the Earn assemblage*

UPPER DEVONIAN TO LOWER MISSISSIPPIAN
DME — **EARN - CASSIAR:** *consists upwards of dark clastic rocks (1) capped by tuffaceous chert (2) and felsic volcanic rocks (3), the chert and volcanic rocks in part laterally equivalent; intrusive equivalents of the volcanic rocks are the Pelly Mountains Suite*
1, dark grey, recessive weathering, thin-bedded, black siliceous slate with interbeds and members of chert-quartz greywacke, chert-quartz grit and chert pebble to cobble conglomerate; may include lenses of intermediate to felsic volcaniclastic rocks
2, rusty orange weathering, resistant, apple green and dark grey, thin-bedded chert and cherty tuff; local nodular and bedded barite
3, heterogeneous, rusty, black, white, and orange weathering rhyolite-trachyte to andesite flows, breccia and tuff; locally highly pyritic; local black slate and grey-green cherty tuff; minor fine crystalline limestone; locally abundant trachyte dikes

UPPER SILURIAN TO UPPER DEVONIAN
SDA — **ASKIN:** *platy dolomitic siltstone (1) overlain by dolostone and orthoquartzite (2) with rare volcanic rocks (3)*
1, tan, medium grey and locally maroon weathering, light grey, thin-bedded to platy dolomitic siltstone, dolomitic fine-grained sandstone and minor silty dolomite ***(Askin Gp)***
2, medium grey to buff weathering, medium to thick-bedded dolostone, silty and sandy dolostone, limestone; medium to thick-bedded, medium-grained mature orthoquartzite; dolomitized laminated mudstone and dolostone with vugs, birdseye and fenestral cavities ***(Askin Gp)***
3, orange weathering, recessive, maroon and green lapilli tuff and volcanic breccia with interbedded bioclastic dolomite ***(Askin Gp)***

CAS (St. Cyr)

CAMBRIAN TO DEVONIAN OR YOUNGER
ЄDs — **ST. CYR:** *poorly understood, fine clastic and carbonate assemblage, (1) to (5), with only general similarities to equivalent strata elsewhere in Cassiar Mountains; overlain by strata typical of Earn, Tay and Jones Lake assemblages elsewhere*
1, orange to brown weathering, recessive, medium grey interlaminated calcareous shale and silty limestone or calcareous siltstone; proportion of carbonate to clastic material varies widely; includes slaty and phyllitic equivalents (Cambro-Ordovician?)
2, orange brown weathering, recessive, thin-bedded, medium to dark grey, calcareous shale, siltstone and argillaceous limestone; includes slate and phyllitic slate (Cambrian to Lower Devonian?)
3, black, recessive weathering, calcareous graphitic "sooty" slate and silty shale; includes thin beds of dark grey graphitic, very fine grained quartzite and black "sooty" crinoidal limestone (Ordovician and Silurian?)
4, orange buff weathering, medium grey, thin to medium-bedded, finely laminated and cross-laminated calcareous quartz siltstone and very fine grained orthoquartzite, with slaty phyllite partings; minor massive, grey orthoquartzite (Siluro-Devonian?)
5, orange to dark blue-grey phyllite and thinly laminated phyllitic limestone; minor laminated siltstone, green slate, and rare chert; platy, fetid limestone, locally crinoidal; minor shale, basalt, tuff and breccia (Upper Devonian or younger?)

ORDOVICIAN TO DEVONIAN, LOCALLY MISSISSIPPIAN (?)
ODR — **ROAD RIVER - CASSIAR:** *fine-grained, graphitic clastics of dominantly Ordovician and Silurian age (1), but in places including Upper Silurian and Devonian equivalents (2)*
1, recessive, black, locally calcareous, fissile, graptolitic slate; local thick to very thick interbeds of grey quartz arenite; includes thin sills or flows of dark green basalt undifferentiated
2, recessive, dark grey to black "sooty" limy or dolomitic thin-bedded to platy graphitic siltstone and fine grained impure quartzite with interbedded graphitic silty shale

UPPER CAMBRIAN AND LOWER ORDOVICIAN
ЄOK — **KECHIKA:** *basinal fine-grained calcareous pelitic strata (1) with locally intercalated mafic volcanic rocks (2)*
1, thin-bedded, lustrous, calcareous, grey slate, phyllite, limestone, minor grey dolostone and dolomitic limestone; quartz-carbonate veins; minor sills and flows of basalt and basaltic tuff ; may include Ordovician black slate at top of succession ***(Kechika Gp)***
2, massive, dark green and maroon amygdaloidal basalt flows and volcaniclastic rocks; medium to fine-grained diabase or diorite sills with chilled margins; medium grey, chlorite muscovite quartz phyllite with abundant undifferentiated lenses of "greenstone"

CA (CASSIAR)

LOWER CAMBRIAN
lЄR — **ROSELLA:** *resistant, thick-bedded to massive, limestone and argillaceous limestone; local archaeocyathid buildups, trilobite fragments, oolites, and pisolites; pisolitic massive dolostone and limestone; marble, calc-silicate, calcareous phyllite and minor schist* ***(Rosella Fm)***

lЄB — **BOYA:** *light grey to medium brown, fine to medium-grained quartz arenite and interbedded argillite, slate, siltstone, phyllite and minor limestone* ***(Boya Fm)***

NEOPROTEROZOIC TO LOWER CAMBRIAN
PЄI — **INGENIKA:** *consists upwards of coarse quartzose clastic rocks overlain by fine clastic rocks (1), a marble horizon (2), and fine clastic strata (3); laterally equivalent similar fine clastics (4) are mostly (?) correlative to the upper part of this succession*
1, calcareous sandstone, shale, quartz-eye grit, quartzite, micaceous quartzite and minor grey limestone generally overlain by phyllite, quartzite, and dolomitic marble; muscovite-chlorite schist, biotite schist, metasandstone and minor calc-silicate ***(Swannell and Tsaydiz fms of the Ingenika Gp)***
PЄIc — *2, marble, minor dolomite, calc phyllite* ***(Espee Fm of the Ingenika Gp)*** *- PЄIc*
3, phyllite, quartzite, minor micaceous metasandstone ***(Stelkuz Fm of the Ingenika Gp)***
4, thin-bedded slate, siltstone, quartzite and minor limestone with local medium to coarse-grained, feldspathic sandstone to orthoquartzite; muscovite biotite garnet schist, micaceous quartzite, minor amphibolite and marble; rare granodiorite gneiss ***(Ketza Gp, Harvey Gp)***

E

QUATERNARY (Qs)
Q — **QUATERNARY**: *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

LOWER TERTIARY, MOSTLY(?) EOCENE (Tvs)
lTR — **ROSS:** *mixed bimodal volcanic rocks (basalt (1), rhyolite (2)) and terrestrial clastics (3), dominantly along or near Tintina Fault; farther removed, scattered occurrences of rhyolitic lava and dikes (4) are also included*
1, locally amygdaloidal, dark grey-green olivine basalt necks and flows; subaerial and subaqueous (locally pillowed); volcaniclastic rocks; minor olivine gabbro; locally plagioclase-phyric basalt and diabase dikes; minor shale and conglomerate - lTRv
2, rhyolite flows, tuff, ash-flow tuff and breccia, locally laminated; small stocks and necks of white weathering, flow-banded, quartz-sanidine porphyry to granite porphyry, locally obsidian bearing; local shale, sandstone and conglomerate - lTRf
3, brown, thin-bedded, claystone, siltstone, shale and coal; arkosic or chert rich, thick-bedded micaceous sandstone; thick-bedded to massive pebble to boulder, chert-quartz conglomerate - lTRs
4, light coloured felsic quartz feldspar porphyry and rhyolite; minor acid tuff breccia, crystal lithic tuff and ignimbrite; quartz-feldspar porphyry stocks and dikes - lTqR
5, gabbro - lTgbR

LATE CRETACEOUS (LKp)
LKM — **MCQUESTEN SUITE (67-64 Ma):** *medium to coarse-grained, locally porphyritic and K-feldspar megacrystic biotite-muscovite granite and quartz monzonite (q)*

MID-CRETACEOUS (mKv)
KSF — **SOUTH FORK:** *dark brown weathering, locally columnar jointed, massive, densely welded, biotite-quartz-hornblende-feldspar crystal tuff* ***(South Fork Volcanics)***

(mKp)
mKT — **TOMBSTONE SUITE (94-90 Ma):** *plutonic suite dominated by felsic (q) to syenitic (y), and minor intermediate (g) compositions*
q, medium to coarse-grained, locally porphyritic biotite hornblende, clinopyroxene granite ***(Tombstone Suite)***
g, quartz monzonite, granodiorite, quartz diorite
y, medium to coarse-grained biotite-hornblende-clinopyroxene syenite, quartz syenite; tourmaline orbicular granite; hornblende biotite alkali-feldspar syenite; hornblende-biotite monzogranite; clinopyroxenite, diorite, and pseudoleucite tinguaite ***(Tombstone Suite))***

mKM — **MAYO SUITE (98-93 Ma):** *massive to foliated plutonic rocks of intermediate (g) to felsic (q) compositions*
g, massive to foliated, variable in texture, hornblende > biotite (± clinopyroxene) quartz monzonite or monzodiorite; granodiorite and quartz diorite; late-stage sub-alkaline kersantite or spessartite to alkali minette lamprophyres
q, medium-grained, equigranular biotite granite; K-feldspar porphyritic granite; aplite–pegmatite dikes

mKTu — **TUNGSTEN SUITE (98-96 Ma):** *fine-grained and equigranular, medium to coarse-grained and K-feldspar porphyritic or megacrystic, ilmenite and monazite-bearing biotite monzogranite and leucogranite (g); local miarolitic, aplite ± pegmatite ± quartz–feldspar–(biotite) porphyry dikes*

mKTR — **TAY RIVER SUITE (99-95 Ma):** *massive to strongly foliated, fine to coarse-grained, equigranular to porphyritic, biotite ± hornblende (± clinopyroxene) monzogranite (q) and granodiorite (g)*

mKH — **HYLAND RIVER SUITE (106-100 Ma):** *massive to weakly foliated, biotite ± hornblende granodiorite and monzogranite (g); subordinate granodioritic to dioritic plagioclase–biotite porphyry phases, dikes and enclaves*

mKA — **ANVIL SUITE (110-104 Ma):** *K-feldspar megacrystic, biotite ± muscovite monzogranite (g), weakly foliated; fine-grained hornblende–(plagioclase)-phyric diorite dikes*

NA (NORTH AMERICA - SOUTHEAST)

TRIASSIC
TRG — **GALENA SUITE (240-230 Ma):** *massive, medium-grained hornblende diorite and gabbro sills; massive chloritic and locally serpentinized greenstone (diorite, gabbro, and altered equivalents) sills; minor occurrences of possible mid to late Paleozoic age*

MIDDLE TO UPPER TRIASSIC
TRJ — **JONES LAKE:** *dark grey and brown fine-grained siliciclastic rocks (1), and minor limestone (2)*
1, brown to buff weathering, calcareous siltstone, shale, and fine sandstone, commonly finely cross-laminated and locally bioturbated ***(Jones Lake Fm)***
2, dark grey and buff weathering, recessive, thin-bedded, locally bioclastic limestone and interbedded sandy or silty limestone; locally orange weathering platy limestone

CARBONIFEROUS TO PERMIAN
CPMC — **MOUNT CHRISTIE:** *burrowed, interbedded greenish grey cherty shale and green shale; thin to medium-bedded, light grey-green to black chert; black siliceous slate and siltstone; minor quartzite, limestone and dolostone; locally abundant, grey barite nodules* ***(Mount Christie Fm)***

MISSISSIPPIAN
CT — **TSICHU:** *mixed siliciclastic (1, 2), chert (3) and carbonate assemblage*
1, massive to thick-bedded quartz arenite; thin to medium-bedded quartz arenite interstratified with black shale or carbonaceous phyllite; local scour surfaces and shale intraclasts; locally foliated and lineated ***(Keno Hill Quartzite)*** *- CTq*
2, black to silvery shale or carbonaceous phyllite ***(Keno Hill Fm)*** *- CTs*
3, chert, and chert pebble conglomerate ***(Tsichu Gp)*** *- CTc*
4, thin to medium-bedded, siliceous calcarenite, dolostone, sandy dolostone and minor grey quartzite; buff and grey weathering, thick-bedded, dark grey bioclastic limestone; black to silvery shale ***(Tsichu Gp)*** *- CTl*

MT — **TAY:** *mixed, generally fine clastic and carbonate assemblage (1) with locally thick regionally mappable carbonate horizons (2)*
1, recessive, dark brown weathering, thin to medium-bedded, calcareous, dark grey to brown siltstone and shale, commonly burrowed; thin to thick interbeds of fine crystalline, dark grey limestone; minor quartz arenite ***(Tay Fm)***
2, grey and buff weathering, generally thick bedded to massive, dark grey to black fetid limestone; fine crystalline to cryptocrystalline; commonly bioclastic ***(Kalzas Fm)***

DEVONIAN AND MISSISSIPPIAN
DME — **EARN:** *complex assemblage of submarine fan and channel deposits (1), (5), (6) within black siliceous shale and chert (2), (4) and including separated small occurrences of felsic volcanic rocks (3); barite common, and many occurrences of stratiform Pb-Zn*
1, thin-bedded, laminated slate with thin to thickly interbedded fine to medium-grained chert-quartz arenite and wacke; thick members of chert pebble conglomerate; black siliceous siltstone; nodular and bedded barite; rare limestone ***(Earn Gp, Portrait Lake and Prevost fms)***
2, silvery blue weathering black shale, argillite, cherty argillite and thin-bedded chert; nodular and bedded barite; rare limestone ***(Earn Gp, Portrait Lake and Prevost fms; may locally include beds as old as Early Devonian)***
3, massive felsic to intermediate volcanic flows, tuffs and subvolcanic plug(s); locally highly altered; greenish chert and minor black slate; quartz eye quartz-sericite chlorite phyllite; local vesicular or amygdaloidal basalt, locally pillowed - DMEV
4, light and dark grey chert and dark grey siliceous shale ***(McCann Hill Fm)***
5, olive-grey mudstone, chert-quartz sandstone and chert pebble conglomerate; shale and sandstone commonly in coarsening and thickening-upward cycles ***(Nation River Fm)***
6, bioclastic limestone, conglomerate, common chert pebble, crinoids and coral fragments ***(debris flow deposit in Earn Gp shale)***

DMgE — **EARN SUITE (370-360 Ma):** *grey-green weathering, green fresh, augite ± hornblende porphyritic gabbro*

MID-PALEOZOIC?
mPN — **NOGOLD:** *buff, maroon and minor green argillite with quartz sandstone and siltstone interbeds; basal green chert; rare light grey weathering, dark grey limestone beds of Early to Late Devonian age; thick-bedded green to yellow grey weathering sandstone and grit* ***(Nogold succession)***

NA (NORTH AMERICA)

SILURIAN TO MIDDLE DEVONIAN
SDA — **ASKIN (McEVOY):** *buff, platy siltstone (1) overlain by carbonate and quartzite (2)*
1, buff, brown and grey laminated, platy, calcareous or dolomitic siltstone, grey orthoquartzite, and minor black, argillaceous limestone; silty dolostone, dolostone and sandy dolostone; dark grey, fetid, platy limestone; silvery white weathering, resistant, medium-bedded, medium-grained, mature orthoquartzite forms interbeds and thick members
2, medium grey, medium-bedded to massive, laminated to sucrose, dolostone and

ORDOVICIAN TO LOWER DEVONIAN
ODR — **ROAD RIVER - SELWYN:** *black shale and chert (1) overlain by orange siltstone (2) or buff platy limestone (3); locally contains beds as old as Middle Cambrian (4)*
1, black, gun-blue, or silvery white weathering black graptolitic shale and black chert; resistant grey weathering, thin to medium-bedded, light grey to black, greenish grey or turquoise chert; minor argillaceous limestone ***(Road River Gp, Duo Lake and Elmer Creek fms)***
2, rusty dark green to orange buff weathering, pyritic, burrowed, thin to thick-bedded, argillite and dolomitic siltstone with members or partings of black shale and chert; minor bright orange dolostone ***(Road River Gp, Steel Fm)***
3, blue-grey weathering, black limestone; tan, buff, or dark grey weathering platy, silty limestone ***(Sapper Fm)***
4, black shale; limestone, limestone conglomerate, and interstratified argillite and pale yellow limestone ***(may include Middle Cambrian strata)***
5, barite

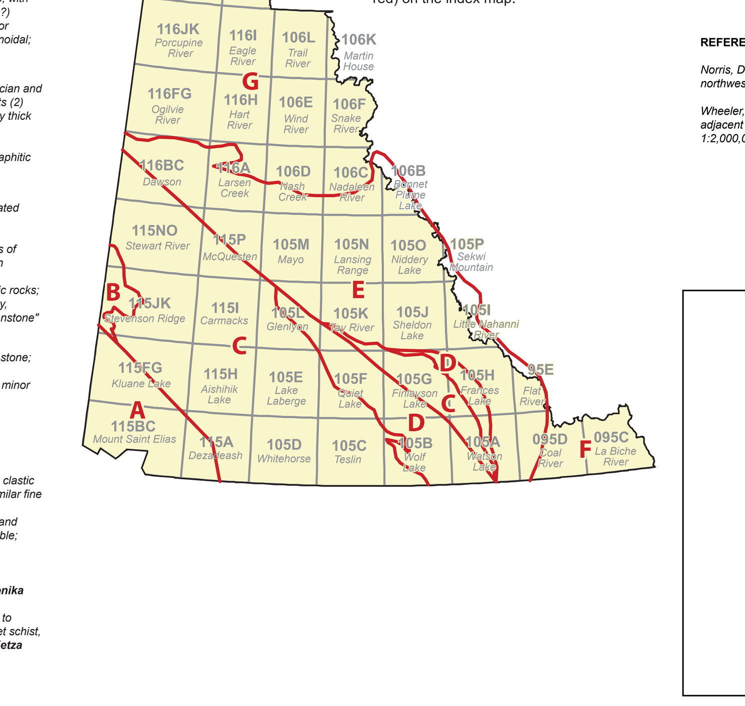
CAMBRIAN TO SILURIAN
ЄSM — **MARMOT:** *lower Paleozoic mostly mafic volcanic rocks, in locally thick accumulations (1) - (8) but also of common occurrence as undifferentiated thin scattered members within other units (e.g. ЄOR, OSR) and as gabbro and pyroxenite dikes (9,10)*
1, resistant, dark grey weathering, massive, locally pillowed, dark grey-green basalt, tuff and breccia ***(Menzie Creek Fm)***
2, amygdaloidal basaltic flows and breccia; mostly subaqueous; thick, flow-banded rhyolite and felsite, includes breccia and tuff ***(Marmot Fm)***
3, resistant dark greenish grey weathering mafic volcanic flows, tuff and hyaloclastic breccia ***(Dempster Volcanics)***
4, flow banded rhyolite and felsite, breccia and felsic tuff ***(Dempster Volcanics)***
5, white weathering limestone, locally bioclastic ***(Dempster Volcanics)***
6, dark green to brown or orange weathering mafic, vesicular and amygdaloidal volcanic flows, carbonate-cemented hyaloclastic breccia, and volcanic-derived sandstone, grit, and pebble and cobble conglomerate
7, massive brown to green, basic lapilli tuff, breccia, flows, sills, and dikes; intraclast breccia and conglomerate; brown weathering, green to grey, medium to very thick bedded volcaniclastic sandstone
8, grey to dark grey weathering, dark volcanic rocks, many partly serpentinized, brown-weathering, grey-green, limy tuff and argillite, and thin-bedded brown limestone
9, dark green to black, locally magnetic, coarse to fine-grained, massive to foliated gabbro, pyroxenite; subvolcanic dikes and sills to Menzie Creek and Dempster basalt
ЄSMum — *10, bright green to black serpentinite; orange to brown weathering listwaenite, commonly contains fuschite - ЄSMum*

UPPER CAMBRIAN AND ORDOVICIAN
ЄOR — **RABBITKETTLE:** *basinal limestone (1) that may locally include older and younger basinal pelitic strata undivided (2)*
1, thin-bedded, wavy banded, silty limestone and grey lustrous calcareous phyllite; limestone intraclast breccia and conglomerate; massive to laminated, grey quartzose siltstone and chert and rare black slate; local mafic flows, breccia, and tuff ***(Rabbitkettle Fm)***
ЄORv — *2, as in ЄOR1, but may include Middle Cambrian and Middle Ordovician beds undivided*
3, basalt - ЄORv

LOWER CAMBRIAN
lЄG — **GULL LAKE:** *dominantly fine clastic assemblage (1) with local volcanic units (2); marble, calc-silicate (3) and basal conglomerate (4); locally includes strata as young as Lower Ordovician (5)*
1, shale, siltstone and mudstone, locally bioturbated (including "Oldhamia"), with minor quartz sandstone; rare green-grey chert; local basal limestone and limestone conglomerate; phyllite to quartz-muscovite-biotite schist (garnet sillimanite staurolite andalusite) ***(Gull Lake Fm)*** *- lЄGs*
lЄGc — *2, dark green massive to fragmental mafic metavolcanic and volcaniclastic rocks; siltstone and argillite - lЄGv*
3, marble, calc-silicate ***(Mount Mye Fm)*** *- lЄGc*
4, conglomerate, quartzite, argillite, brown-weathering sandstone; archaeocythid-bearing limestone clasts - lЄGb
5, brown weathering, finely laminated bioturbated grey and olive green shale with variable amounts of tan weathering silty limestone, grey limestone and minor limestone conglomerate (includes strata as young as Lower Ordovician)

NEOPROTEROZOIC TO LOWER CAMBRIAN
PЄH — **HYLAND:** *succession of pelitic and psammitic schist (1), coarse turbiditic clastic rocks (3,6), with carbonate marker horizons (2,4,5,7) and varicoloured slate (8)* ***(Hyland Gp)***
1, brown weathering, psammitic, semipelitic and pelitic schist ***(Hyland Gp, Tyers fm)*** *- PЄHt*
PЄHt / **PЄHtc** — *2, grey banded marble and calc-silicate* ***(Hyland Gp, Tyers fm, carbonate)*** *- PЄHtc*
3, grey, rusty brown weathering phyllite, sandstone, granule-pebble conglomerate; minor thin-bedded grey limestone ***(Hyland Gp, Yusezyu Fm, lower)*** *- PЄHyl*
PЄHyc — *4, rusty-weathering brown schist and grey sulphide-rich marble* ***(Hyland Gp, Yusezyu Fm, lower marble)*** *- PЄHyc*
PЄHym — *5, thin to medium-bedded, medium to dark grey, commonly fetid limestone; includes calcilutite, calcarenite and calcirudite; brownish-grey silty/sandy limestone* ***(Hyland Gp, Yusezyu Fm, middle)*** *- PЄHym*
6, thin to thick-bedded, fine to coarse-grained quartz-rich sandstone, grit, and quartz pebble conglomerate, brown to pale green shale; matrix-supported boulder conglomerate; minor argillaceous limestone; phyllite, quartzofeldspathic and micaceous psammite, gritty psammite and minor marble ***(Hyland Gp, Yusezyu Fm, upper)*** *- PЄHyu*
PЄHa — *7, grey weathering, dark grey to grey white, thin to thick-bedded, crystalline limestone and calcirudite, locally sandy, local shale interbeds; flat-pebble limestone conglomerate; rare grey chert; calc-silicate and marble* ***(Hyland Gp, Algae Fm)*** *- PЄHa*
PЄHn — *8, recessive, varicoloured (maroon, grey, green) slate; bioturbated, including "Oldhamia"; local basal member with interbeds of quartz siltstone, sandstone and limestone conglomerate/breccia* ***(Hyland Gp, Narchilla Fm, including Senoah and Arrowhead Lake mbs)*** *- PЄHn*

LOCATION INDEX FOR LEGEND



The Legend is geographically oriented from generally southwest (left side of the page) to northeast and north (right side of page). The region for which each Legend column is most applicable is indicated by the corresponding areas A to H (in red) on the index map.

F

LOWER TERTIARY, MOSTLY(?) EOCENE (Tvs)
lTR — **ROSS:** *alkaline volcanic rocks (1) and terrestrial clastics (3)*
1, plagioclase, amphibole, olivine, nepheline and pyroxene-phyric, black, grey to greenish-grey, unfoliated volcanic rocks; feldspar, amphibole and pyroxene-phyric, very finely crystalline, light to medium-grey or greenish-grey, massive trachyte ***(Beaver River Alkaline Complex)*** *- lTRv*
3, compositionally immature, brown and reddish brown, conglomerate and sandstone; sandstone is typically crossbedded, poorly to well-indurated; minor basalt - lTRs

EOCENE (Ep)
ET — **TING SUITE (56-50 Ma):** *grey, unfoliated syenite, dominated by white feldspar with lesser biotite, coarsely crystalline; greyish-red and pale green aphanitic intrusive breccia with xenoliths of pink syenite, volcanic rocks and sandstone*

UPPER CRETACEOUS TO TERTIARY (KTs)
KTB — **BONNET PLUME:** *sandstone, shale and coal, marine and nonmarine (1) and (2) deposited in foredeep of Cordilleran Orogen* ***(equivalent to "Brazeau foredeep clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
2, banded, feldspathic sandstone, coal ***(Wapiti Fm)***

UPPER CRETACEOUS
KT — **TENT ISLAND:** *shale with local siltstone, sandstone and conglomerate (1) and (2)* ***(equivalent to "Smoky foredeep marine shales" tectonic assemblage of Wheeler and McFeely, 1991)***
2, dark grey concretionary shale; mudstone; grey sandstone; marine ***(Kotaneelee Fm)***

LOWER CRETACEOUS AND (MOSTLY) UPPER CRETACEOUS
KM — **MONSTER:** *diverse assemblage of fine to coarse clastics, marine and nonmarine (1) to (7) deposited in foredeep of Cordilleran orogen* ***(equivalent to "Trevor southwesterly derived clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
7, carbonaceous sandstone and pebble conglomerate; dark grey shale, siltstone ***(Dunvegan Fm)***

LOWER CRETACEOUS
KS — **SHARP MOUNTAIN:** *fine and coarse clastic assemblage, mostly marine (1) to (7) deposited in foredeep of Cordilleran orogen* ***(equivalent to "Blairmore foredeep clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
5, concretionary dark grey and rusty weathering shale, gypsiferous in part; greenish grey sandstone, siltstone and shale ***(Fort St. John Gp including Garbutt, Scatter, Sikanni, Sully, and Lepine fms)***

NA (NORTH AMERICA - SOUTHEAST)

MIDDLE TO UPPER TRIASSIC
TRJ — **JONES LAKE:** *dark grey and brown fine-grained siliciclastic rocks (1)*
1, grey, red and green shale interbedded with sandstone; brown, thin to thick-bedded, laminated or massive, locally bioturbated; minor brown to grey siltstone; locally calcareous or phosphatic; shalier and more recessive at base ***(Grayling and Toad fms)***

PERMIAN
PF — **FANTASQUE:** *assemblage of chert and shale, sandstone and mudstone (1), and limestone, dolostone (2)*
1, grey to black chert in medium to very thick beds separated by thin beds of shale; grey sandstone and mudstone ***(Fantasque Fm)***
2, limestone, dolostone, chert and shale ***(Tika and Fantasque fms)***

CARBONIFEROUS
CM — **MATTSON:** *generally divisible to lower thinly bedded grey sandstone, shale and coal (1) overlain by massive bedded, grey to brown sandstone (2), in turn overlain by grey sandstone, limestone and shale (3)* ***(Mattson Fm)***
1, quartz arenite, very fine to fine-grained, light grey or beige, grey to orange-weathering, thin to medium-bedded, typically cross-laminated; well-indurated, trace fossils common; interbedded with minor dark grey siltstone and shale ***(lower member))***
2, quartz arenite, locally cherty, grey to beige or brown, thick-bedded, fine to large-scale cross bedding, poorly to well-indurated; interbedded with minor medium to dark grey siltstone and shale ***(middle member)***
3, sandstone: quartz arenite, locally cherty, calcareous, or dolomitic, light to medium grey, commonly shows large-scale crossbedding; interbedded with minor limestone: grey, cherty and siliceous, typically fossiliferous with crinoids, brachiopods, bryozoans ***(upper member)***
4, undivided middle and upper members

CFG — **FLETT/GOLATA:** *limestone: cherty, grey, skeletal wackestone to packstone and lesser grainstone, massive; interbedded with minor shale, mudstone, or siltstone: calcareous, spiculitic; and sandstone* ***(Flett Fm)****; overlain by dark grey to black silty shale and mudstone; minor fossiliferous limestone and dolostone* ***(Golata Fm)***

CP — **PROPHET:** *spiculitic, calcareous or dolomitic, dark grey, greyish-orange weathering, well bedded chert; rhythmically interbedded with cherty, medium to dark grey, skeletal wackestone to packstone; sandstone and black to dark grey shale*

DEVONIAN AND MISSISSIPPIAN
DMBR — **BESA RIVER:** *fine-grained clastic assemblage in southeastern Yukon*
1, black shale and argillite; brown and green shale and argillite; cherty argillite; fine-grained, quartzose sandstone; may locally include undivided black shale and chert of Ordovician to Devonian age ***(Besa River and minor Fort Simpson fms)***

MIDDLE DEVONIAN
DH — **HUME:** *assemblage of fossiliferous limestone*
1, buff-brown weathering argillaceous to silty, dark grey, fine-grained limestone, platy to thin-bedded; minor intercalated irregularly banded orange weathering dolostone and thin beds of resistant; orange-brown weathering limestone; richly fossiliferous ***(Headless Fm)***

DEVONIAN
DD — **DUNEDIN:** *limestone, locally dolomitic, mudstone to wackestone to skeletal-grainstone, medium to dark grey, grey-weathering, medium to thick-bedded, crinoid debris locally abundant; unit is resistant* ***(Dunedin Fm)***

SILURIAN TO MIDDLE DEVONIAN
SDc — *dolostone, locally sandy, finely crystalline, light to medium grey, beige to grey-weathering, medium to thick-bedded; locally laminated, locally vuggy, unfossiliferous; minor dolomitic siltstone, laminated* ***(Nonda, Muncho, McConnell and Stone fms)***

UPPER ORDOVICIAN AND SILURIAN
OSK — **KINDLE:** *dolostone succession*
2, medium to thick-bedded, black, coarse-grained dolostone and interbedded grey weathering laminated dolostone with nodules and bands of black chert; medium grey weathering, platy, grey argillaceous limestone with minor chert shale; massive and reefoid, fetid dolostone ***(Whittaker, Nonda fms)***

MIDDLE ORDOVICIAN
OSs — *grey to beige quartz arenite, locally conglomeratic; quartz-pebble conglomerate, subrounded to rounded clasts; minor sandstone and silty limestone*

MIDDLE ORDOVICIAN
Os — **SUNBLOOD:** *mainly dolostone and limestone (1); local mafic volcanic (2)*
1, buff, rouge and light grey weathering platy dolostone and limestone; local interbedded light and dark grey fine crystalline and white coarse crystalline dolostone at base; rare thick beds of light blue-grey limestone ***(Sunblood Fm)***
2, basalt in southeast Yukon - OSv

CAMBRIAN TO ORDOVICIAN
ЄOOC — **OTTER CREEK:** *light grey, fine-grained, indistinctly bedded, resistant limestone; lesser buff to tan-weathering dolostone* ***(partly correlative with Haywire Fm)***

ЄOC — **CROW:** *sandstone (1) and basalt (2) in southeast Yukon*
1, cream to pink, indistinctly bedded, quartzose to subarkosic sandstone; lesser maroon to greyish red, laminated siltstone to argillite; minor conglomerate, limestone and dolostone interbeds; correlative with Rabbitkettle Fm
ЄOCv — *2, greyish green and maroon, grey-weathering, thick-bedded basaltic lapilli tuff and breccia interbedded with amygdaloidal, vesicular to massive pillowed flows; in part correlative with Rabbitkettle Fm volcanic rocks - ЄOCv*

LOWER CAMBRIAN
lЄS — **SEKWI:** *pale green to tan, brown-weathering, laminated, locally calcareous, locally fossiliferous, pelitic phyllite to siltstone; rusty brown-weathering, thin-bedded arkose; lesser laminated, silty limestone and cream-weathering, fine-grained quartzose sandstone; medium grey to dark grey and orange weathering limestone containing archaeocyathids near middle of unit* ***(Sekwi Fm)***

NEOPROTEROZOIC TO LOWER CAMBRIAN
uPЄV — **VAMPIRE:** *sandstone and siltstone, minor orthoquartzite; phyllite, slate, and argillite* ***(Vampire Fm)***
1, dark grey to pale green, rusty tan-weathering, non-calcareous, pinstriped silty, pelitic phyllite; lesser cream, quartzose sandstone and light grey-weathering siltstone; minor pebbly conglomerate to sandstone and grey, bedded limestone; locally metamorphosed to biotite-garnet-staurolite pelitic schist
2, pale grey, white-weathering, bedded to massive limestone or marble
3, green, grey-weathering, basaltic lapilli tuff and breccia interbedded with amygdaloidal, vesicular or massive, locally pillowed basaltic flows; intruded by equigranular, green, hornblende-plagioclase diabase

NEOPROTEROZOIC
LPP — **POOL CREEK SUITE (650-640 Ma):** *pink syenite, dominated by pink potassium-feldspar with lesser dark chloritized biotite, medium to coarsely-crystalline, unfoliated*

uPHC — **HAY CREEK (?):** *post-rift, fine to coarse siliciclastic rocks (1), cap dolostone (3) and glacial diamictite (5)*
1, banded green to grey or greyish-red argillite or siltstone; very fine grained, laminated or very thin bedded sandstone, soft-sediment slump folding is common; minor matrix-supported conglomerate ***(probably equivalent to Twitya Fm)*** *- uPHCt*
3, very fine to medium-grained, white to light grey or greenish-grey, massive to laminated or ripple cross-laminated quartz arenite; interbedded with minor dark grey to black, laminated siltstone ***(Keele Fm)*** *- uPHCk*
5, dark grey to black, orange-brown-weathering, polymictic, matrix-supported conglomerate; matrix mudstone to fine siltstone; clasts dominantly sandstone, siltstone and limestone ***(Toobally Fm)*** *- uPHCtb*

EXPLANATION

AGE OF TECTONIC ASSEMBLAGE
ASSEMBLAGE NAME: *assemblage description; assemblages are a subjective grouping of stratigraphic or metamorphic rock units that allow correlation and potrayal of lithological continuity on a regional scale* ***(applicable formation (Fm), suite, group (Gp), member (mb) names indicated in bold face)****; informal stratigraphic units denoted by lower cases abbreviation (i.e. gp, fm)*
Assemblage names are chosen from a representative and/or significant constituent formation or group
1, separately distinguished and described components of assemblage indicated by subunits (i.e. 1, 2 ...), generally displayed at 1:250,000 scale
2, where indicated some subunits are distinguished by their own colour and/or pattern to add detail and clarity to the map
3, a diagonal dash pattern distinguishes volcanic facies of some subunits
4, a stipple pattern distinguishes distal, basinal facies of some subunits
5, a cross pattern distinguishes subvolcanic, plutonic subunits for some mixed clastic and volcanic assemblages
6, a red stipple pattern distinguishes subunits metamorphosed to eclogite or blueschist facies (in Yukon-Tanana terrane)

AGE OF PLUTONIC SUITE
PLUTONIC SUITE NAME: *plutonic suite description; plutonic suites as subjective groupings of plutonic rock units that allow correlation and potrayal of lithological continuity on a regional scale; some plutonic suites can be subdivided on basis of composition* ***(applicable suite, batholith, or pluton names indicated in boldface)***
Suite names are chosen from a representative and/or significant named plutonic suite, batholith or pluton
q, granite, quartz monzonite
g, granodiorite
d, diorite
y, syenite
gb, gabbro
f, felsic dikes

Brackets indicate grouping by terrane, post-terrane amalgamation intrusive suites, and overlap assemblages colour-coded as follows:

dark blue	–	Ancestral North America (or Laurentia)
cyan	–	displaced Ancestral North America (or Laurentia)
brown	–	Intermontane (or peri-Laurentian) terranes
green	–	Insular terranes
yellow	–	overlap sequence
red	–	post-amalgamation plutonic suite

For clarity at the 1:1,000,000 scale, not all subunits in the legend are indicated separately on the map. For example, JKH1 and JKH3 are amalgamated under the colour of the parent unit JKH. The more detailed legend corresponds to map units in the GIS source data for display at the 1:250,000 scale.

The GIS data used to produce this map are regularly updated and available for download from the Yukon Geological Survey's website – www.geology.gov.yk.ca/update_yukon_bedrock_geology_map.html. The data can also be viewed and queried online using the Yukon Geological Survey interactive map service: http://mapservices.gov.yk.ca/YGS/SL/.

SYMBOLS
- Geological contact (defined, approximate, inferred, extrapolated)
- Fault, sense of movement unknown (defined, approximate, inferred, extrapolated)
- Fault, normal, barb on downthrown side (defined, approximate, inferred, extrapolated)
- Fault, low-angle detachment, crescent on upper plate (defined, approximate, inferred, extrapolated)
- Fault, thrust, teeth on upper plate (defined, approximate, inferred, extrapolated)
- Fault, thrust, overturned, teeth on upper plate (defined, approximate, inferred, extrapolated)
- Fault, strike-slip, dextral (defined, approximate, inferred, extrapolated)
- Fault, strike-slip, sinistral (defined, approximate, inferred, extrapolated)
- Permanent ice and snow

REFERENCES:

Norris, D.K. 1997. Geology and mineral and hydrocarbon potential of northern Yukon Territory and northwestern District of Mackenzie. Geological Survey of Canada, Bulletin 422, 401 p.

Wheeler, J.O. and McFeely, P., 1991. Tectonic assemblage map of the Canadian Cordillera and adjacent parts of the United States of America. Geological Survey of Canada, Map 1712A, scale 1:2,000,000.

Yukon Geological Survey
Energy, Mines and Resources
Government of Yukon

Open File 2016-1
Yukon Bedrock Geology Map 2016

Sheet 2 of 2
Legend

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G

QUATERNARY (Qs)
Q — **QUATERNARY**: *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

TERTIARY
TF — **FISH RIVER:** *fine to medium-grained sandstone, siltstone and mudstone (1) and (2) deposited in foredeep of Cordilleran orogen* ***(equivalent to Moose Channel (1) and Reindeer (2) tectonic assemblages of Wheeler and McFeely, 1991)***
1, fine to medium-grained sandstone with planar and hummocky cross-stratification, and ripple and horizontal lamination; upper light grey mudstone with thin interbeds of siltstone and very fine grained sandstone; alluvial grading upward to marine ***(Moose Channel Fm)***
2, weakly cemented to unconsolidated interbedded sandstone, pebbly sandstone, conglomerate, mudstone and some lignite; fluvial to deltaic ***(Reindeer Fm)***

UPPER CRETACEOUS (KTs)
KT — **TENT ISLAND:** *shale with local siltstone, sandstone and conglomerate (1) and (2)* ***(equivalent to "Smoky foredeep marine shales" tectonic assemblage of Wheeler and McFeely, 1991)***
1, basal unit of massive sandstone to conglomerate in medium to thick beds succeeded by medium to dark grey, soft mudstone with thin interbeds of siltstone and very fine grained sandstone; submarine fan coarse clastics succeeded by marine shelf deposits ***(Tent Island Fm)***

UPPER CRETACEOUS TO TERTIARY
KTB — **BONNET PLUME:** *sandstone, shale and coal, marine and nonmarine (1) and (2) deposited in foredeep of Cordilleran Orogen* ***(equivalent to "Brazeau foredeep clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
1, medium to coarse-grained sandstone with minor thin lenses and layers of fine pebble conglomerate separated by layers of grey fissile shale; lignite; fluviatile and lacustrine ***(Bonnet Plume Fm (upper))***
2, banded, feldspathic sandstone, coal ***(Wapiti Fm)***

LOWER CRETACEOUS AND (MOSTLY) UPPER CRETACEOUS (uKs)
KM — **MONSTER:** *diverse assemblage of fine to coarse clastics, marine and nonmarine (1) to (7) deposited in foredeep of Cordilleran orogen* ***(equivalent to "Trevor southwesterly derived clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
1, interbedded sandstone and shale; sandstone is generally fine-grained, locally pebbly and occurs in thin to medium beds; ripple cross-lamination and load casts common; carbonaceous debris common; marine ***(Trevor Fm)***
2, medium to dark grey shale and mudstone; rare bentonite; very fine to medium-grained sandstone with hummocky cross-stratification, horizontal lamination and thin interbeds of mudstone; bioturbation; marine to locally fluvial at top ***(Eagle Plain Fm)***
KMb — *3, sandstone and shale; marine*
4, dominantly resistant massive pebble to cobble, and locally boulder conglomerate with lesser sandstone and shale; alluvial ***(Bonnet Plume Fm (lower member))*** *- KMb*
KMbc — *5, lower part: brown weathering, fine-grained arkosic sandstone (marine?); middle part: silty mudstone and carbonaceous and conglomeratic sandstone (nonmarine?); upper part: mesa-forming chert-quartz sandstone-pebble conglomerate (fluviatile?)* ***(Monster Fm)***
6, soft, light grey to black fissile shale with scattered cm-thick beds of white to yellow bentonite and ironstone concretions; marine ***(Boundary Creek Fm)*** *- KMbc*
7, carbonaceous sandstone and pebble conglomerate; dark grey shale, siltstone

LOWER CRETACEOUS
KS1,3 — **SHARP MOUNTAIN:** *fine and coarse clastic assemblage, mostly marine (1) to (7) deposited in foredeep of Cordilleran orogen* ***(equivalent to "Blairmore foredeep clastic wedge" tectonic assemblage of Wheeler and McFeely, 1991)***
1, basal interbedded siltstone and silty shale with concretionary horizons overlain by interbedded glauconitic fine-grained sandstone, siltstone and shale; marine ***(Martin House Fm)***
KS2,7 — *2, thin-bedded dark grey to brown or black shale and interbeds of siltstone; concretions and clay (bentonite?) beds; locally basal beds are silty or sandy to conglomeratic; marine* ***(Arctic Red Fm)***
3, massive sandstone and pebble conglomerate; rare ripple cross-lamination in sandstone; shale-dominant units with thin beds of siltstone and very fine grained sandstone; local mud-supported conglomerate; marine sediment gravity flow deposits ***(Sharp Mountain Conglomerate)***
KS4,5,6 — *4, sandstone, conglomerate and shale; flyschoid*
5, concretionary dark grey and rusty weathering shale, gypsiferous in part; greenish grey sandstone, siltstone and shale ***(Fort St. John Gp including Garbutt, Scatter, Sikanni, Sully, and Lepine fms)***
6, dark grey weathering massive to poorly bedded chert sandstone and chert pebble conglomerate; fluvial(?) ***(Big Timber Fm)***
7, basal member of shale with thin interbeds of sandstone and pebbly sandstone; upper member of generally massive sandstone and conglomerate with normal and some inverse grading; conglomerate clasts to boulder size; marine sediment gravity flow deposits ***(Kathul Greywacke)***

(JKs)
lKM1 — **MOUNT GOODENOUGH:** *shale, siltstone, and sandstone (1) to (6) comprising alternating fine and coarse clastic units* ***(equivalent to upper part of "Parsons continental margin clastics" tectonic assemblage of Wheeler and McFeely, 1991)***
1, dominated by fine-grained quartz arenite with hummocky cross-stratification, swaley bedding, plane lamination, ripple lamination and bioturbation; members and interbeds of shale; marine inner shelf to upper shoreface ***(Martin Creek Fm; may include McGuire Fm)***
lKM2 — *2, shale with thin beds of siltstone and very fine grained argillaceous bioturbated sandstone; ironstone concretions in lower beds; marine* ***(McGuire Fm)***
lKM3,4 — *3, shale, siltstone, sandstone and coal; marine and nonmarine*
4, basal interbedded sandstone, siltstone, shale and locally conglomerate, with bioturbation, lamination and cross-stratification; upper beds are bioturbated dark grey shale, interbedded with thin siltstone and silty sandstone; marine ***(Mount Goodenough Fm)***
lKM5 — *5, dark grey to black argillite, siltstone and sandstone; turbiditic* ***(Biederman Argillite)***
lKM6 — *6, interbedded units of sandstone and shale; hummocky cross-stratification and planar lamination; marine* ***(Rat River Fm)***

JURASSIC AND LOWER CRETACEOUS
JKH1,3 — **HUSKY:** *shale and siltstone (1) and (3) and laterally equivalent coarser grained siltstone and sandstone (2) and (4) and undivided clastic strata (5) deposited on a marine shelf* ***(equivalent to lower part of "Parsons continental margin clastics" tectonic assemblage of Wheeler and McFeely, 1991)***
1, dark grey siltstone and shale ***(Kingak Fm (upper), may include Porcupine River and Husky fms, and Bug Creek Gp)***
JKH2 — *2, siltstone and light grey fine to very fine grained sandstone; marine and nonmarine* ***(Porcupine River Fm)***
JKH4 — *3, dark grey shale, siltstone and ironstone; marine* ***(Husky Fm)***
4, light grey glauconitic conglomeratic sandstone, shale and siltstone; marine ***(North Branch Fm)***
JKH5 — *5, shale, siltstone, sandstone; minor conglomerate; limonitic nodules; marine and nonmarine* ***(undivided Jurassic and Lower Cretaceous clastic rocks)***

JURASSIC
JB — **BUG CREEK:** *several cycles of shale and shelf sandstone in northern Yukon (2), fining generally to the northwest (3), and including equivalent generally fine clastic strata in central Yukon (1)* ***(equivalent to upper part of "Spray River continental margin prism" tectonic assemblage of Wheeler and McFeely, 1991)***
1, dark grey argillite, slate, and phyllite, commonly graphitic, thin-bedded dark grey quartzite, platy to phyllitic quartzite; minor phyllite and limy quartzite ***(Lower Schist)***
2, succession of alternating coarse and fine clastic formations; rock types include soft, fissile shale, siltstone, fine to medium-grained sandstone with thin argillaceous interbeds and with low-angle cross bedding and ferruginous oolites; marine ***(Bug Creek Gp: includes Aklavik, Murray Ridge, Almstrom Creek, Manuel Creek and Richardson Mountains fms)***

NA (NORTH AMERICA)

UPPER TRIASSIC
TS — **SHUBLIK:** *commonly bioturbated calcareous shale, siltstone and sandstone; silty bioclastic limestone; local hummocky cross-stratification* ***(Shublik Fm)***

LOWER AND MIDDLE PERMIAN
PJC — **JUNGLE CREEK:** *clastic assemblage with some carbonate (1) but including undifferentiated clastics and carbonates of mostly(?) equivalent age (2) and a separately mappable partly equivalent carbonate (3) and conglomerate (4)*
1, consists upward of chert pebble conglomerate, sandstone and shale overlain by mixed carbonate or cherty mudstone, silty limestone and prominent resistant lenses of sandstone in turn overlain by yellow orange weathering, fine-grained, grey sandstone ***(Jungle Creek, Longstick fms)***
2, undivided Lower and Middle Permian strata including shale, siltstone and limestone ***(Sadlerochit (in part), Echooka fms)***
3, rusty to light grey weathering, grey to white, crystalline skeletal limestone; partially silicified and dolomitized (upper part); interbedded black chert (middle part); calcitic sandstone, chert-pebble conglomerate, and sandy limestone (basal part) ***(Tahkandit Fm)***
4, chert-pebble conglomerate and fossiliferous sandstone with units of sandy to conglomeratic skeletal limestone ***(Step Conglomerate)***

UPPER DEVONIAN TO PERMIAN
uDPF — **FORD LAKE:** *generally fine to coarse-grained clastic succession equivalent to Canol, Imperial and(?) Tuttle assemblages (1) or including these and younger formations undivided (2) and (3)*
1, dark grey to black, silty pyritic shale and siltstone with subordinate sandstone, conglomerate and silty limestone ***(Ford Lake Shale)***
2, shale, siltstone, limestone, sandstone, conglomerate, chert undivided ***(Canol, Ford Lake, Hart River, and Ettrain fms undivided)***
3, shale, siltstone, limestone, sandstone, conglomerate, chert undivided ***(Ford Lake, Hart River, Ettrain, and Jungle Creek fms undivided)***

UPPER CARBONIFEROUS
CE — **ETTRAIN:** *cherty, echinoderm-bryozoan and ooid lime grainstone and mixed-skeletal lime packstone; glauconitic sandy carbonate; local quartz-chert siltstone and sandstone; marine* ***(Ettrain Fm)***

LOWER AND UPPER CARBONIFEROUS
CH — **HART RIVER:** *dominantly carbonate assemblage (1) with equivalent local clastics (2)*
1, thinly laminated, cherty spiculite and spicule lime packstone with subordinate sandstone, siltstone and calcareous shale; local lime grainstone; local members of lenticular to shoe-string sandstone grading into chert rich conglomerate ***(Hart River Fm)***
2, brown weathering sandstone, conglomerate and skeletal limestone; equivalent to upper part of Hart River Fm ***(Hart River Fm)***

CARBONIFEROUS
CL — **LISBURNE:** *lime mudstone and wackestone, mixed skeletal lime packstone and grainstone; fine crystalline, sandy to silty dolostone; siltstone and shale; lime grainstone and packstone; ooid and skeletal-ooid grainstone* ***(Lisburne Gp undivided; Alapah and Wahoo fms)***

CARBONIFEROUS
CKY — **KAYAK:** *basal dark grey to black shale and siltstone with lesser thin bedded, locally conglomeratic sandstone grading upward to dark grey, calcareous shale with minor argillaceous, silty lime packstone and wackestone; basal parts coal bearing* ***(Kayak Fm)***

lCK — **KEKIKTUK:** *pebble-to-boulder conglomerate with subordinate conglomeratic sandstone and minor shale; clasts dominantly chert, but include white vein quartz, grit, sandstone, siltstone and scattered granitic clasts* ***(Kekiktuk Fm)***

LOWER CARBONIFEROUS
lCT — **TUTTLE:** *chert granule to pebble conglomerate and conglomeratic sandstone with subordinate siltstone and shale; minor coal; includes unnamed, partly correlative light grey medium-grained sandstone and dark grey shale; pro-deltaic, deltaic and fluvial* ***(Tuttle Fm)***

UPPER DEVONIAN
uDI — **IMPERIAL:** *rusty-weathering dark grey shale and siltstone generally in lower part of succession overlain by dark grey, fine-grained lithic sandstone and siltstone; siltstone and sandstone commonly as sharp-based graded beds* ***(Imperial Fm)***

uDC — **CANOL:** *dark grey to black non-calcareous, soft to very hard shale with scattered, orange-weathering, carbonate nodules and minor chert* ***(Canol and minor Hare Indian fms)***

NA (NORTH AMERICA)

MIDDLE DEVONIAN
DH — **HUME:** *assemblage of fossiliferous limestone (3) and similar, laterally equivalent units (1) and (2) and (4)*
1, buff-brown weathering argillaceous to silty, dark grey, fine-grained limestone, platy to thin-bedded; minor intercalated irregularly banded orange weathering dolostone and thin beds of resistant; orange-brown weathering limestone; richly fossiliferous ***(Headless Fm)***
2, massive, thick-bedded, fine to medium-grained, light grey weathering limestone ***(Nahanni Fm)***
3, dark grey, finely crystalline fossiliferous limestone and minor shale ***(Hume Fm)***
4, buff-orange weathering thin to medium-bedded silty limestone ***(Funeral Fm)***

DL — **LANDRY:** *thin to very thick bedded, resistant, light grey weathering, medium to light grey and brownish crypto-grained limestone; massive and thick-bedded bioclastic, locally reefoid limestone; black, platy limestone* ***(Landry Fm)***

UPPER LOWER TO LOWER MIDDLE DEVONIAN
DB — **GRIZZLY BEAR:** *limestone, white grey weathering, cliff forming, blocky partings, massive, fine to medium crystalline; scattered corals, brachiopods, bryozoans and twin canal echinoderm ossicles* ***(Grizzly Bear Fm)***

MIDDLE DEVONIAN
DN — **NATLA:** *dark grey weathering, platy, thin-bedded, recessive sooty limestone, in part crinoidal; uncommon beds of massive crinoidal limestone* ***(Natla Fm)***

LOWER AND MIDDLE DEVONIAN
DG — **GOSSAGE:** *assemblage consists of limestone and dolostone (1) and partly equivalent black limestone (2) and shale (3)*
1, black, calcareous shale; black richly fossiliferous limestone; orange brown weathering dolostone ***(Michelle Fm)***
2, dark grey and black, fine-grained limestone; recessive light grey, thick-bedded argillaceous limestone; black, argillaceous limestone; calcareous shale; marine ***(Ogilvie Fm)***
3, limestone and dolostone, light grey and dark brownish grey, fine to medium-grained, mostly alternating dark and light coloured medium to thick beds ***(Gossage Fm)***

UPPER SILURIAN TO LOWER DEVONIAN
SDD — **DELORME:** *buff to orange weathering, well-bedded, buff, light grey, brownish grey and dark grey, very fine grained dolostone; platy to flaggy, wavy banded blue-grey silty limestone with rare thin beds of buff weathering dolostone* ***(Delorme Fm)***

UPPER CAMBRIAN TO LOWER DEVONIAN
ЄDB — **BOUVETTE:** *lower Paleozoic undivided carbonate (1) with locally named tongues(?) (2) and (3)*
1, grey and buff-weathering dolostone and limestone, medium to thick-bedded; white to light grey weathering, massive dolostone; minor platy black argillaceous limestone, limestone conglomerate, and black shale; massive bluish-grey weathering dolostone ***(Bouvette Fm, unit ЄDb)***
2, biogenic, oolitic, siliceous, massive limestone; marine ***(Jones Ridge Fm)***
3, light grey, thick-bedded, pelletoidal limestone ***(Vunta Fm)***

CAMBRIAN TO DEVONIAN
ЄDR — **ROAD RIVER - RICHARDSON:** *black graptolitic shale, limestone and minor chert with mappable subdivisions (1) through (5) in Richardson Mtns.; correlations with Selwyn Mtns. include: lower (2) with ЄOR, upper (2) with OSR1, (4) with OSR2 and (5) with lower DME2* ***(Road River Gp)***
1, calcareous black shale and limestone (ЄDR0 ***of Norris, 1997)***
2, lower: pale yellow to grey weathering, thin to medium-bedded, shaly limestone with minor shale interbeds; minor chert and intraclast conglomerate; upper: black chert, graptolitic shale, silicified limestone and minor intraclast conglomerate (ЄDR1 ***of Norris, 1997)***
3, sharpstone breccia, heterogeneous, commonly with limestone and chert clasts; turbiditic (ЄDR2 ***of Norris, 1997)***
4, interstratified, yellowish to orange weathering argillite and yellowish to grey weathering shaly limestone and dolostone; minor black, calcareous shale, intraclast conglomerate and breccia (ЄDR3 ***of Norris, 1997)***
5, graptolitic, black shale and shaly limestone; minor limestone, intraclast conglomerates and breccia (ЄDR4 ***of Norris, 1997)***

UPPER ORDOVICIAN AND SILURIAN
OSK — **KINDLE:** *dolostone succession includes mostly two laterally equivalent and lithologically similar formations (1) and (2), a partially equivalent local clastic-carbonate assemblage (3) and locally undivided carbonate of similar age (4)*
1, thick-bedded, dark grey to black and minor light grey weathering dolostone; locally massive, vuggy and reefoid; minor chert ***(Mt. Kindle Fm)***
2, thick-bedded, black, coarse-grained dolostone and interbedded grey weathering laminated dolostone with nodules and bands of black chert; medium grey weathering, platy, grey argillaceous limestone with minor chert shale; massive and reefoid dolostone ***(Whittaker, Nonda fms)***
3, well-bedded siltstone, sandstone, dolostone and shale
4, thick-bedded to massive light grey dolostone and limestone; dark grey, fetid limestone; includes undifferentiated beds as young as Lower Devonian

UPPER CAMBRIAN AND ORDOVICIAN
ЄOF — **FRANKLIN MOUNTAIN:** *dolostone succession with local basal quartzite and red bed member; includes two laterally equivalent and lithologically similar formations (1) and (2)*
1, grey, argillaceous, sandy and silty dolostone; basal red beds member consists of sandstone, red shale, conglomerate, dolostone and chert ***(Franklin Mountain Fm)***
2, well-banded, rhythmically bedded, grey and buff-orange dolostone; includes grey to black dolostone and dark grey to black limestone; local basal member of maroon dolostone and sandstone, silver-grey sandstone and sandy dolostone ***(Broken Skull Fm)***

UPPER CAMBRIAN
uЄT — **TAIGA:** *striped yellow and orange weathering, fine crystalline, light grey limestone; light grey weathering, thick-bedded and massive dolostone; minor brown and green shale* ***(Taiga Fm)***

MIDDLE CAMBRIAN
mЄH — **HESS RIVER:** *shale, black, pyritic, unfossiliferous; occurs as interstratified thick units of black calcareous shale and rusty black shale* ***(Hess River Fm)***

G

NA (NORTH AMERICA)

LOWER AND MIDDLE CAMBRIAN
lmЄS — **SLATS CREEK:** *siltstone, sandstone and shale (1) and partly(?) correlative clastic rocks (2)*
1, rusty brown weathering, turbiditic, quartz sandstone with minor shale and siltstone; pale red weathering siltstone, sandstone, quartzite pebble and cobble conglomerate and limestone; maroon with green argillite with minor quartzite and limestone ***(Slats Creek Fm)***
2, grey, green and red argillite with laminated quartzite and siltstone; light brown quartzite at base; locally with grey-green chloritic shale and siltstone interbeds; trace fossil "Oldhamia", trilobites and archaeocyatha in basal conglomerate unit ***(Adams Argillite)***

lЄI — **ILTYD:** *limestone assemblage (1), (2), (3); also includes carbonate strata of uncertain Proterozoic to Cambrian age (4)*
1, fine-crystalline, dark grey limestone; light grey, medium crystalline biohermal dolostone ***(Illtyd Fm)***
2, fine-grained, yellow brown limestone, limy conglomerate-breccia; locally chert and chalcedony replacements; uncommon archaeocyathid and trilobite fossils ***(Hillard Fm)***
3, massive, light grey limestone, locally dolomitic; in places oolitic or contains dark grey chert; includes secondary silicification and chalcedony vugs ***(Funnel Creek Fm)***
4, light grey, medium-bedded dolostone; massive, pale grey limestone

LOWER CAMBRIAN
lЄS — **SEKWI:** *limestone, locally wavy bedded and nodular; limestone conglomerate slope breccia; massive grey dolostone; medium to thick-bedded quartz sandstone; purple siltstone; bright orange weathering, fine-crystalline dolostone* ***(Sekwi Fm)***

NEOPROTEROZOIC TO LOWER CAMBRIAN
uPЄV — **VAMPIRE:** *dark brown weathering, thin-bedded, argillaceous fine-grained sandstone and siltstone, minor interbedded medium to coarse-grained white to light grey orthoquartzite, phyllite, slate, and argillite* ***(Vampire Fm)***

PЄB — **BACKBONE:** *massive quartzite (1) with regionally extensive carbonate member (2) and local mafic volcanic rocks (3)*
1, light grey, red-brown, white, and pink, thick-bedded, medium to coarse-grained orthoquartzite; minor brown or maroon phyllite, platy siltstone, silty shale, thin-bedded fine-grained quartzite, grey limestone and sandy to pebbly limestone ***(Backbone Ranges Fm)*** *- PЄB*
PЄBc — *2, crypto-grained, mottled, mauve, pink, banded limestone and dolostone, locally silty, sandy or pebbly; massive light cream to pink weathering dolostone; massive grey siltstone; minor quartzitic sandstone and brick red to purple shale* ***(Backbone Ranges Fm, "middle" carbonate mb)*** *- PЄBc*

uPЄI — **INGTA:** *varicoloured quartzite, siltstone and shale, minor silty and sandy dolostone* ***(Ingta Fm)***

NEOPROTEROZOIC (EDIACARAN)
uPRi — **RISKY:** *buff grey to buff yellow weathering poorly bedded, in part pisolitic dolostone, in part porous fine-grained dolostone; varicoloured quartzite, siltstone and shale, minor silty and sandy dolostone* ***(Risky Fm)***

uPB — **BLUEFLOWER:** *fine-grained siliciclastic and carbonate rocks, and locally conglomerate* ***(Blueflower Fm; equivalent in part to Yusezyu Fm, Hyland Gp)***
1, buff, grey and pale yellow-weathering limestone, planar and cross-bedded, interbedded with green-grey shale ***(lower mb)***
2, green or grey, rhythmically bedded mudstone, siltstone, and fine sandstone; matrix-supported conglomerate; grey and orange-coloured carbonate boulders in orange-brown-weathering, poorly sorted sandstone matrix ***(middle mb)***
3, brown-weathering, shale, siltstone and sandstone; pale grey-pink sandstone and grit; calcareous shale; sandy limestone; mudstone, siltstone; thinly bedded silty limestone ***(upper mb)***

uPG — **GAMETRAIL:** *grey, yellow and orange weathering dolostone, dolomitic siltstone/sandstone and limestone, commonly planar and/or cross-laminated; calcareous shale and siltstone; maroon shale; carbonate-clast breccia and conglomerate* ***(Gametrail Fm)***

uPN — **NADALEEN:** *brownish-grey siltstone, mudstone, limestone; limestone conglomerate; rhythmically, thin to medium-bedded mudstone and limestone; pink-grey sandstone and quartzite; calcareous sandstone and granule-pebble conglomerate* ***(Nadaleen fm)***
1, diamictite, conglomerate; clasts of carbonate and quartzite, pebble to boulder; matrix locally sandy; grey limestone; calcareous sandstone and grit ***(lower carbonate)***
2, grey, well-bedded silty limestone
3, diamictite, conglomerate; clasts of carbonate and quartzite, pebble to boulder; matrix locally sandy; grey limestone
4, pink-grey quartz arenite, granule-pebble conglomerate
5, black crystalline limestone
6, grey to greenish-brown rhythmically bedded fine-grained sandstone, siltstone, mudstone; maroon siltstone-mudstone ***(Stenbraten mb)***

uPS — **SHEEPBED:** *recessive, black weathering shale and siltstone; minor quartzite and limestone* ***(Sheepbed Fm)***

NEOPROTEROZOIC (CRYOGENIAN)
uPHC — **HAY CREEK:** *post-rift fine to coarse siliciclastic rocks (1) and equivalent dolostone (2), cap dolostone (3) and glacial diamictite (4)*
1, thin-bedded, brown weathering siltstone, shale interbedded with sandstone, granule to pebble conglomerate, and light grey weathering dolostone ***(Hay Creek Gp, Twitya Fm, Knorr Range (P1) succession)*** *- uPHCt*
2, massive to thick-bedded, light grey weathering dolostone commonly containing vugs, stromatolites, oncolites, oolites and micritic intraclasts; commonly fetid; minor siltstone, sandstone and grit ***(Hay Creek Gp, Profeit Fm, Knorr Range (P2, P3) succession)*** *- uPHCp*
3, orange and brown weathering, commonly silty and sandy dolostone, in part well-laminated and flaggy; limestone, cross-bedded pebbly quartzite and conglomerate ***(Hay Creek Gp, Keele Fm)*** *- uPHCk*
4, brown weathering diamictite, granule to boulder; interbedded mudstone and siltstone; olistostrome; locally, distinct white dolostone member at top ***('Tepee dolostone') (Hay Creek Gp, Ice Brook Fm)*** *- uPHCi*

uPR — **RAPITAN:** *basal (rift) conglomerate (1) overlain by glacial diamictite (2) in turn succeeded by*
1, maroon mudstone with interbeds of sandy mud-matrix-conglomerate and pebbles of limestone, mudstone, sandstone and chert; thick-bedded to massive, sandstone and pebble to boulder conglomerate with clasts of carbonate, siltstone and quartz arenite ***(Rapitan Gp, Sayunei Fm)*** *- uPRsa*
2, brown, orange brown, and green weathering massive diamictite with rounded to subrounded pebbles and cobbles of carbonate, sandstone, (?)greenstone, chert, mudstone, igneous and metamorphic rocks; highly ferruginous dark red siltstone; iron formation ***(Rapitan Gp, Shezal Fm)*** *- uPRsh*
3, dark grey to black, orange-brown weathering, polymictic, matrix-supported conglomerate; matrix mudstone to fine siltstone, clasts dominantly sedimentary sandstone, siltstone and limestone ***(Eagle Creek Fm in Ogilvie Mtns)*** *- uPRec*
4, clastic rocks of uncertain affinity west of Nadaleen Mountain - uPRc

NEOPROTEROZOIC (TONIAN-CRYOGENIAN)
uPH — **HARPER:** *a volcanic and coarse-clastic rift succession, including stromatolitic dolostone and local felsic volcanic rocks*
1, orange to dark grey weathering diamictite with pebbles to boulders of quartzite and grey dolostone in dolomitic matrix; silty dolostone; dark grey shale; orange-brown to dark brown weathering platy siltstone, sandstone ***(Mt. Harper Gp)*** *- uPHs*
2, massive and pillowed andesitc flows, tuff-breccia, lapilli tuff, and block-and-ash breccia; columnar-jointed basaltic andesite; hyaloclastic breccia ***(Mt. Harper Gp)*** *- uPHv*
3, heterolithic sandstone and conglomerate with pebble to boulder-sized angular and rounded clasts; clasts composed of dolostone, limestone, quartzite, and phyllite from underlying units; medium to coarse-grained, graded or massive, rare dolomitic sandstone, dusky red wackestone/mudstone ***(Seela Pass Fm)*** *- uPHsp*
uPHcl — *4, finely laminated sandstone, siltstone, and shale interbedded with laterally discontinuous stromatolitic bioherms at base; sharply overlain by medium-bedded dolostone with abundant domal stromatolites, microbialite, evaporite pseudomorphs and sedimentary talc horizons; at top, interbedded black shale and stromatolitic dolostone; locally includes abundant chert and dolomitic silicified breccia* ***(Callison Lake Fm)*** *- uPHcl*
5, diabase dikes and sills - uPHd
6, light-orange weathering, rubble-forming, rhyolite flows, breccia and ignimbrite; locally quartz and plagioclase-phyric - uPHf

NEOPROTEROZOIC (TONIAN)
LPFd — **FRANKLIN SUITE (ca. 725-718 Ma):** *medium-grained gabbro dikes intruding Neoproterozoic?; quartzite in the Porcupine River region; amphibolite, greenstone (probable correlation with Franklin dike swarm, ca. 725-720 Ma); brown-weathering, aphyric to phlogopite-phyric lamprophyre dikes crosscutting Wernecke and Mackenzie Mountains supergroups, and locally hosting abundant xenoliths; dark-green weathering, fine to medium-grained diorite dikes crosscutting Mackenzie Mountain Supergroup.*

uPL — **LITTLE DAL:** *thin-bedded, light grey to buff and orange weathering fine-grained dolostone; rare shale and argillite; upper part dominated by orange weathering stromatolitic dolostone and massive vuggy and craggy dolostone and includes gypsum* ***(Mackenzie Mountain Supergroup, Little Dal Gp)***

uPK — **KATHERINE:** *mature, very fine grained, thin to very thick bedded, brown, greenish grey and white orthoquartzite with recessive intervals of dark grey to black shale; rare stromatolitic dolostone* ***(Mackenzie Mountain Supergroup, Katherine Gp and Tigonkweine fm)***

LPGd — **GUNBARREL SUITE (ca. 780 Ma):** *dark-green-weathering, fine to medium-grained diorite within Tsezotene Fm. Locally, diorite is plagioclase-phyric and hosts veins of calcite, quartz and pyrite* ***(Tsezotene sills)***

uPTZ — **TSEZOTENE:** *grey, greenish grey or brown shale with interbeds of very fine grained, thin to medium-bedded, immature, grey and greenish grey sandstone or quartzite and orange weathering dolostone; hosts many gabbroic dikes and sills* ***(Mackenzie Mountain Supergroup, Tsezotene Fm)***

uPFu — **FIFTEENMILE (UPPER):** *siliciclastic-carbonate assemblage comprising two regionally correlated units (1) and (2)*
1, black to brown-coloured shale, siltstone, minor sandstone and conglomerate; carbonate grainstone, ribbon-bedded calcisiltite, intraclast breccia, and laminated micrite ***('Reefal assemblage')*** *- uPFur*
2, thick-bedded and massively recrystallized, silicified sucrosic dolostone; occasional ooids, coated grains, brecciated teepee structures, tabular clast conglomerate, intraclast breccia, low-angle and trough cross-stratification, microbialite, and low-relief stromatolites ***('Craggy dolostone')*** *- uPFuc*
3, greyish black shale; limestone; dolostone; diabase dikes and sills; undivided ***(Tindir Gp, lower)*** *- uPFut*

uPFl — **HEMATITE CREEK/FIFTEENMILE (LOWER):** *dominantly carbonate assemblage with basal clastic succession*
1, rusty weathering black shale with limestone laminates and stromatolite bioherms; dolostone with mudcracks and cryptalgal laminate, chert, teepee and molartooth structure; hematitic quartzite and dolostone; thin-bedded particulate limestone ***(Hematite Creek Gp)***
2, grey ribbon-bedded dolostone, oolitic grainstone, stromatolitic dolostone, and microbialaminite with tepee structures ***(Gibben Fm)*** *- uPFlg*
3, basal maroon shale and siltstone with abundant mud cracks; transitions upward into cyclic shale, siltstone, and dolostone intervals with grainstone, stromatolites, or microbialaminite; local stromatolitic bioherms and poorly sorted, massive coarse-grained sandstone beds; upper part contains large carbonate olistoliths ***(Chandindu Fm)*** *- uPFlch*

uPP — **PINGUICULA:** *dominantly carbonate assemblage (2) with basal clastics (1); includes possible other correlative carbonate and clastic rocks (3)*
1, basal siliciclastic red laminates; brown and grey siltstone and shale ***(Pinguicula Gp, unit A)***
2, thin-bedded laminated and flasered limestone; laminated dolosiltite; massive white dolostone with wavy cryptalgal lamination, cross-bedding, tepee structures, extensive dolomite veinlets and chert ***(Pinguicula Gp, units B-C)***
3, red, green and grey slaty argillite; fine-grained, light grey quartzite; dolostone ***(Pinguicula Gp undifferentiated; assignment tentative, may include Gillespie Lake and Pinguicula gps)***

MESOPROTEROZOIC
MPB — **BEAR RIVER SUITE (ca. 1220 Ma):** *dark-green-weathering, fine to medium-grained diorite crosscutting Quartet Gp. Locally, diorite hosts veins of epidote, quartz, calcite, pyrite, chalcopyrite and hematite*

mPH — **HART RIVER:** *mafic volcanic flows (1) and (3) and their possible intrusive equivalents (2)*
1, mafic volcanic flows, generally massive and fine-grained, locally pillowed ***(Hart River Volcanics)***
2, resistant dark weathering diorite and gabbro sills and dikes ***(Hart River Sills)***
3, basic to intermediate volcanic flows and aquagene tuffs ***(Khose Creek Volcanics)***

mPW — **WERNECKE BRECCIAS:** *hematitic and dolomitic breccia and related metasomatized country rock; breccia contains variably altered rotated siliceous and carbonate clasts (Wernecke Supergroup) and minor dike rock; breccias and metasomatites enriched in Cu, Co, U, Ag and Au* ***(Wernecke Breccias)***

MPgW — **WERNECKE SUITE:** *diabase dikes associated with Wernecke breccias; may include dikes related to Hart River, Gunbarrel, Franklin or Mt. Harper magmatism*

PALEOPROTEROZOIC
lPG — **GILLESPIE LAKE:** *dolostone and silty dolostone, locally stromatolitic, locally with chert nodules and sparry karst infillings, interbedded with lesser black siltstone and shale, laminated mudstone, and quartzose sandstone; local dolostone boulder conglomerate* ***(Wernecke Supergroup, Gillespie Lake Gp)***

lPQ — **QUARTET:** *black weathering shale, finely laminated dark grey weathering siltstone, and thin to thickly interbedded planar to cross-laminated light grey weathering siltstone and fine-grained sandstone; minor interbeds of orange weathering dolostone in upper part* ***(Wernecke Supergroup, Quartet Gp)***

lPFL — **FAIRCHILD LAKE:** *siltstone, sandstone (1) overlain by dolomitic siltstone and dolostone (2)*
1, lower: greenish grey weathering calcareous laminated siltstone, grey weathering fine-grained sandstone, and minor brown weathering carbonate, ripple cross-laminated;
2, upper: siltstone, dolomitic siltstone, and dolostone ***(Wernecke Supergroup, Fairchild Lake Gp)***
3, carbonate

EPBP — **BONNET PLUME RIVER SUITE (ca. 1710 Ma):** *greenish-grey-weathering, fine to medium-grained diorite preserved as megaclasts within Wernecke Breccia. Diorite locally hosts disseminations and veinlets of hematite or magnetite, and chalcopyrite*

H

QUATERNARY (Qs)
Q — **QUATERNARY**: *unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits*

AA (ARCTIC ALASKA - NORTH SLOPE)

LATE DEVONIAN
LDO — **OLD CROW SUITE (ca. 370-360 Ma):** *Paleozoic granitoid rocks in northern Yukon of mostly granitic (q) but including some of syenitic (y) composition*
q, medium to coarsely crystalline leucocratic biotite granite, variably altered ***(Old Crow, Schaeffer, Sedgwick, Ammerman, and Fitton granites)***
y, leucocratic syenite to hornblende nepheline syenite; medium crystalline equigranular to porphyritic and trachytic ***(Dave Lord syenodiorite)***

SILURIAN TO LOWER DEVONIAN
SDBH — **BUCKLAND HILLS:** *dark grey argillite, shale, lithic sandstone, chert granule to pebble conglomerate and conglomeratic sandstone* ***(Buckland Hills fm)***

CAMBRIAN TO SILURIAN
ЄSB — **BARN:** *Paleozoic shale, chert, and limestone; local Ordovician? volcaniclastic rocks;* ***(Barn gp in Barn Mtns; Leffingwell Fm in British Mtns)***
1, lower limestone: thin-bedded, grey to buff limestone; white weathering, black calcareous siltstone (Barn Range) - ЄSBl
ЄSBv — *2, dark green mafic volcanic and volcaniclastic rocks north of Malcom River (British Mtns) and in adjacent Alaska (Ovc in Alaska); mafic lapilli tuff - ЄSBv*
ЄSBc — *3, well-bedded dark grey, black and bright green chert, interbedded with dark grey siltstone, shale and argillite; rusty weathering, green argillite (Yukon) - ЄSB*
4, upper limestone: dark grey, thin-bedded limestone (Barn Range) - ЄSBc

CAMBRIAN
ЄWM — **WHALE MOUNTAIN:** *red-weathering, locally amygdaloidal basalt, volcanic conglomerate, minor limestone, calcareous coarse clastic rocks, mudstone and magnetite iron formation; Late Cambrian trilobites locally* ***(Whale Mountain volcanics)***

NEOPROTEROZOIC (EDIACARAN) TO CAMBRIAN
uPЄN — **NERUOKPUK:** *turbiditic sandstone, quartzite, grit, and pebble conglomerate interbedded with siltstone and lesser argillite; Yukon North Slope* ***(Neruokpuk Fm)***
1, fine to coarse sandstone, grit and pebble conglomerate, poorly sorted, turbiditic, locally feldspathic; siltstone and slaty argillite interbeds; local maroon, green and Oldhamia bearing slate in upper part ***(Neruokpuk Fm (senso stricto))*** *- uPЄNq*
2, slate and argillite, dark grey, maroon, red and green; minor grey limestone, light grey chert, white weathering grey quartzite and siliceous ripple-cross laminated siltstone; Oldhamia trace fossils - uPЄNa
3, limestone (Barn Mountains) - uPЄNc

NEOPROTEROZOIC (CRYOGENIAN-EDIACARAN)
uPF — **FIRTH:** *turbiditic limestone, siltstone, sandstone, argillite* ***(Firth Gp)***
1, interbedded limestone, chert, and slaty argillite, siltstone and sandstone; highly strained; limestone is dark grey to black and clastic; clastics have common Bouma cycles, load and flute casts, and silty to muddy carbonate interbeds - uPFsl
uPFc — *2, limestone, dolostone - uPFc*

RECOMMENDED CITATION:

Colpron, M., Israel, S., Murphy, D.C., Pigage, L.C., and Moynihan, D., 2016. Yukon Bedrock Geology Map. Yukon Geological Survey, Open File 2016-1, 1:1,000,000 scale map and legend.

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