



LEGEND

Coloured legend blocks indicate map units that appear on this map.

QUATERNARY
Q Recent alluvium, Pleistocene till, marine drift

TERTIARY
UPPER OLILOCENE TO LOWER PLEIOCENE
TS Saxonby Formation: sandstone, conglomerate, shale, coal
TM Upper Oligocene to Lower Pliocene: Massey Formation (mainly Graham Island): dominantly aphyric, mafic to felsic flows and pyroclastics; local epiclastic interbeds. Felsic rocks contain feldspar phenocrysts with or without quartz, pyroxene and biotite.
TMa Felsic unit undifferentiated: dacite to rhyolite flows, domes and pyroclastics; minor interbedded mafic flows and epiclastic rocks. Felsic rocks contain feldspar phenocrysts with or without quartz, pyroxene and biotite.
TMb Felsic pyroclastics, commonly lithic-rich with conspicuous welding textures.
TMc Felsic flows and/or domes; minor pyroclastics and breccias. Flows and domes are flow-banded at the mm scale, the matrix is aphyric; lithic clasts are common in some flows.
TMd Felsic pyroclastics, commonly lithic-rich with conspicuous welding textures.
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TMf Felsic pyroclastics, commonly lithic-rich with conspicuous welding textures.
TMg Felsic flows and/or domes; minor pyroclastics and breccias. Flows and domes are flow-banded at the mm scale, the matrix is aphyric; lithic clasts are common in some flows.
TMh Felsic flows and/or domes; minor pyroclastics and breccias. Flows and domes are flow-banded at the mm scale, the matrix is aphyric; lithic clasts are common in some flows.
TMi Felsic flows and/or domes; minor pyroclastics and breccias. Flows and domes are flow-banded at the mm scale, the matrix is aphyric; lithic clasts are common in some flows.
TMj Felsic flows and/or domes; minor pyroclastics and breccias. Flows and domes are flow-banded at the mm scale, the matrix is aphyric; lithic clasts are common in some flows.
TMk Felsic flows and/or domes; minor pyroclastics and breccias. Flows and domes are flow-banded at the mm scale, the matrix is aphyric; lithic clasts are common in some flows.
TMl Felsic flows and/or domes; minor pyroclastics and breccias. Flows and domes are flow-banded at the mm scale, the matrix is aphyric; lithic clasts are common in some flows.
TMm Felsic unit undifferentiated: basalt, basaltic andesite and andesite flows; minor felsic flows, pyroclastics and interflow breccias; rare sedimentary intercalations. Mafic flows and breccias contain feldspar phenocrysts with or without pyroxene, rare olivine and biotite.
TMn Basalt, basaltic andesite and andesite flows. Flows are aphyric, aphanitic and flow-banded.
TMo Felsic pyroclastics, with or without pyroxene.
TMp Basalt, basaltic andesite and andesite flows; may be vesicular and/or amygdaloidal. Matrix is sugary, ophitic to subophitic.
Reworked epiclastics
TMq Fine to coarse grained sandstone and conglomerate, heterolithic; rare plant fragments and thin coal beds.
TMr Lahar.
TMs Debris flow deposits of primary volcanic origin, monolithologic and poorly sorted.

Eocene and Oligocene
TV Unnamed volcanic unit: mafic to felsic flows and pyroclastics; intercalated mafic to felsic lava flows and pyroclastic rocks; local epiclastic interbeds.
TK Kato plutonic suite (U-Pb: 27-46 Ma; K-Ar: 24-40 Ma): fine-grained, seriate and locally micritic hornblende-biotite quartz monzonite, biotite granite, biotite-hornblende quartz diorite, hornblende gabbro, hornblende-biotite-plagioclase porphyry; rare apatite.
TKa Dikes (K-Ar: 43.7 Ma): andesite, basalt, some felsic rocks; fine- to medium-grained; aphyric; diabasic texture; rare feldspar and/or hornblende phenocrysts.
Tsh Unnamed shale: black fissile shale; sandstone; minor conglomerate and coal.

CRETACEOUS
LOWER AND UPPER CRETACEOUS
QUEEN CHARLOTTE GROUP (Kq-Ku)
SANTONIAN
uKsh Unnamed shale: black fissile shale; shale with calcareous concretions; rare sandstone.
CONIACIAN and younger
uKv Unnamed volcanic unit: feldspar-phyric andesite flows and pyroclastics.
uKHo HONKA FORMATION: conglomerate; sandstone; minor shale.
ALBIAN to LOWER TURONIAN
KHS HADA and SKIDEGATE FORMATIONS undivided: sandstone; shale.
KS SKIDEGATE FORMATION: thinly interbedded sandstone and shale; thick to massive sandstone with interbedded shale.
KH HADA FORMATION undivided: sandstone; shale.
KuH UPPER HADA FORMATION: shale and concretionary shale.
KiH LOWER HADA FORMATION: sandstone and concretionary sandstone.

UPPER JURASSIC and LOWER CRETACEOUS
TITHONIAN to APTIAN
iKL LONGBAY FORMATION: sandstone; conglomerate and pebbly sandstone; shale, concretionary shale, minor sandstone.

JURASSIC
MIDDLE to LATE JURASSIC
mJB Burley Island plutonic suite (U-Pb: 183-185 Ma; K-Ar: 145-164 Ma): medium-grained, equigranular, intensely veined biotite-hornblende quartz monzonite; hornblende-biotite quartz monzonite; muscovite-biotite hornblende gabbro and diorite.
mJSC San Christoval plutonic suite (U-Pb: 171-172 Ma; K-Ar: 145-166 Ma): medium-grained, equigranular; mafic inclusion-bearing biotite-hornblende quartz diorite, quartz monzonite and diorite; unit includes Hunter Point, Kinakum Point and Seward's apatite complexes; foliated inclusions and prismatic hornblende are characteristic.

MIDDLE JURASSIC
UPPER BATHONIAN and LOWER CALLOVIAN
mJM MORESBY GROUP: sandstone; conglomerate.

LOWER JURASSIC
YAKOUN GROUP
mJY sandstone and minor shale; breccia; flows; conglomerate.

LOWER JURASSIC
MAIDE GROUP (iJg - iJr): fissile shale; fine- to medium-grained sandstone; minor limestone.

TORDIAN and LOWER ALENIAN
iJP PHANTOM CREEK FORMATION: fine- to coarse-grained fossiliferous sandstone.
LOWER and MIDDLE TORDIAN
iJW WHITEAVES FORMATION: shale containing septarian and limestone nodules; minor sandstone.
PLEIENSCHACHAN and LOWER TORDIAN
iJF FANIN FORMATION: lufaceous sandstone; shale containing septarian nodules; siltstone; minor limestone.
UPPER SINEBURIAN and LOWER PLEIENSCHACHAN
iJG GHOST CREEK FORMATION: shale; siltstone; minor flaggy limestone.

UPPER TRIASSIC and LOWER JURASSIC
uTK KUNSA GROUP (uTs - uTj): fine-grained sandstone; limestone.
UPPER NORIAN to SINEBURIAN
uTKs SANDLANDS FORMATION: fine-grained sandstone; limestone; lufaceous sandstone.
UPPER CARNIAN to MIDDLE NORIAN
uTKP PERIL FORMATION and SADLER LIMESTONE undivided: massive, grey, crystalline limestone; grey, medium-bedded limestone.
LOWER to MIDDLE NORIAN
uTKP PERIL FORMATION: dark grey, medium-bedded limestone.
UPPER GAINAN and LOWER NORIAN
uTKS SADLER LIMESTONE: massive, crystalline, grey limestone; lesser secondary chert.

UPPER TRIASSIC
CARNIAN
uTKK KARLJENSEN FORMATION: basalt flows; breccia; tuff; minor limestone.

Stratigraphic or intrusive contact (defined, approximate, inferred)
Outcrop or outcrop area examined in field
Bedding, top known (inclined, vertical, overturned)
Fault, steeply dipping to vertical, sense of motion not determined (defined, approximate, inferred)
Fault, extensional (symbol also applied to vertical faults; solid circle indicates downthrown side; defined, approximate, inferred)
Fault, contractional (synonymous with thrust fault; teeth indicate upthrown side; defined, approximate, assumed)
Strike slip fault (arrows give sense of displacement)
Anticline (trace of axial plane; upright; overturned)
Syncline (trace of axial plane; upright; overturned)
Fossil locality, GSC catalogue number
Whole-rock chemical analysis locality, reference number (see sheet 2)
K-Ar dates, reference number (see sheet 2)

FOSSIL IDENTIFICATIONS:
 Radiolaria: E.S. Carter
 Conodonts: M.J. Orchard
 Pollen and Spores: J.M. White
 Foraminifera: B.E.B. Cameron
 Trilassic Molluscs: E.T. Tozer
 Lower Jurassic Molluscs: H.W. Tipper, P.L. Smith
 Middle Jurassic Molluscs: T.P. Poulton, R.L. Hall, H.W. Tipper
 Upper Jurassic Molluscs: J.A. Jurek
 Cretaceous Molluscs: J.W. Heggart

Geology by C.J. Hickson, 1987-1988, with assistance from M. Twymann, 1988, assisted by A. Hunter, 1987 and C. Timms, 1988
 Compiled by C.J. Hickson, 1989
 Cartography by B. Sawyer, G. L'Esperance, R. Franklin and E. Vorath

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MAP 6-1990
GEOLOGY
PORT CLEMENTS
 BRITISH COLUMBIA
 Scale 1:50 000 - Échelle 1/50 000

Kilometres 1 2 3 4 Kilomètres
 Universal Transverse Mercator Projection / Projection transverse universelle de Mercator
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