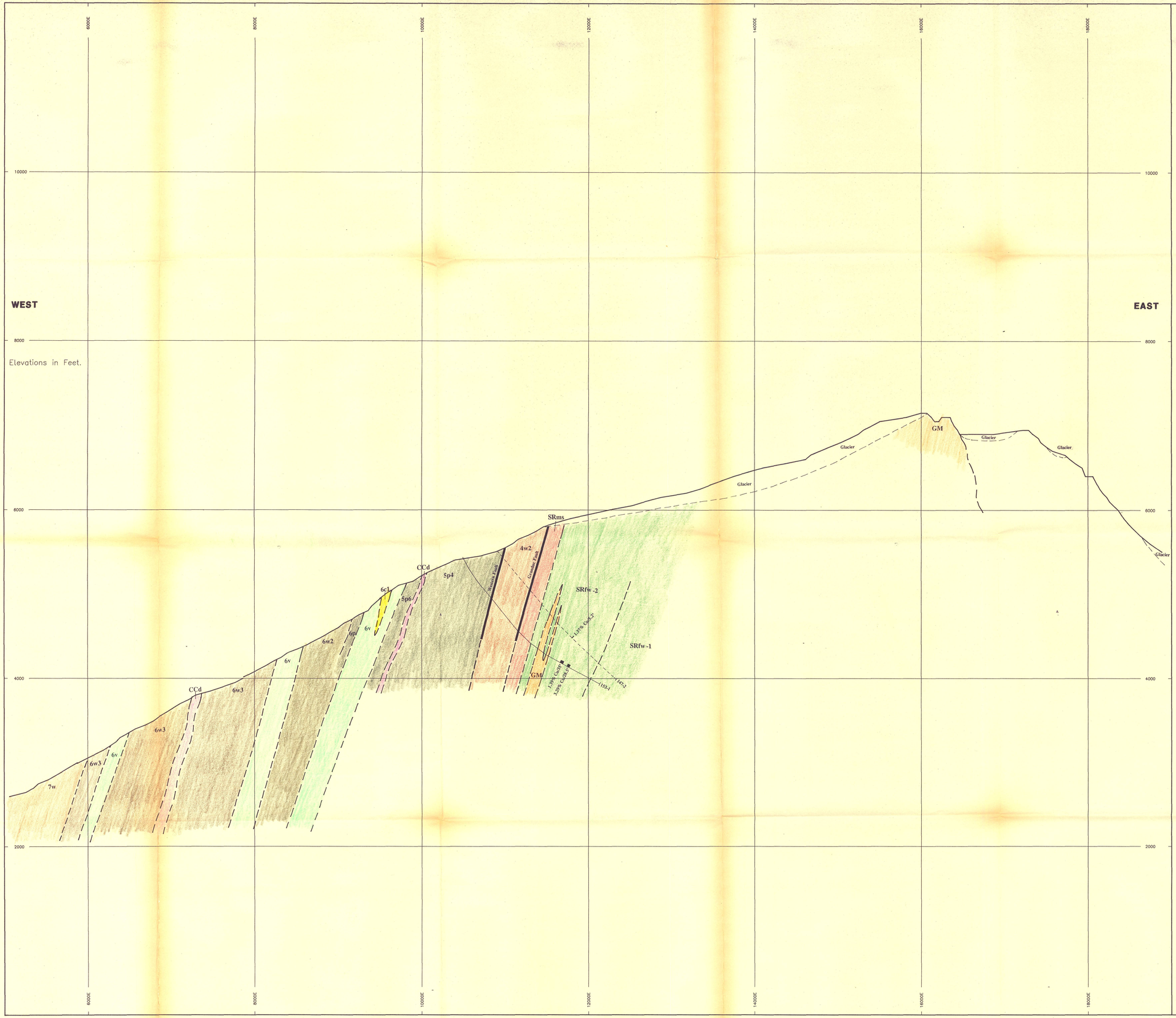

LEGEND

INTRUSIVE ROCKS

Eocene

CC — COAST COMPLEX

Early to Middle Jurassic

GM — GRANDUC MOUNTAIN INTRUSIONS: Fine to medium grained diorite to quartz monzodiorite, locally foliated.

BG — BUCKE GLACIER STOCK: Light grey, gneissic to foliated, medium grained hornblende–biotite quartz diorite.

SL — SUMMIT LAKE STOCK: Coarse grained hornblende granodiorite (192.8 +/– 6 Ma, U–Pb zircon).

TC — TEXAS CREEK BATHOLITH: Coarse grained hornblende granodiorite (206.5 +/– 6 Ma, U–Pb zircon).

VOLCANIC AND SEDIMENTARY ROCKS

Triassic to Jurassic

SALMON RIVER FORMATION (Toarcian to Bajocian):

SR — Undifferentiated; argillite, siltstone, phyllite, tuff, andesite, volcanic and ultramafic rock.

SRs — Interbedded argillite, siltstone, phyllite, sandstone, conglomerate, and minor volcanic rocks.

SRt — Andesite tuff, breccia and agglomerate.

SRf — Andesite massive flows, pillowed flows, ultramafic rocks, and minor interflow sedimentary rocks.

SRfw — GRANDUC HANGING WALL UNITS (units 4 to 8): Undifferentiated; tuff, argillite, phyllite, mafic wacke, siliceous wacke, chert, and volcanic rocks.

CC — COAST COMPLEX: Granitoid batholiths and stocks; biotite granite; biotite/±hornblende granodiorite; minor quartz diorite.

CCd — Fine to medium grained diorite and quartz diorite.

SRfw — GRANDUC HANGING WALL UNITS (units 4 to 8):

GRANDUC HANGING WALL: UPPER VOLCANIC SEQUENCE

8c — Grey, white, and black chert interbedded with green volcanics.

8v — Green foliated volcanics; feldspar and augite-bearing andesite flows, green foliated tuff.

GRANDUC HANGING WALL: SILICEOUS WACKE

7w — Light grey to brown bedded siliceous wacke, some pyritic clots.

GRANDUC HANGING WALL: MAFIC WACKE SEQUENCE

6w3 — Dark grey phyllite and wacke, minor sulphidic argillite, siliceous wacke, and minor feldspar porphyry flows.

6t — Light purplish–grey calcareous tuff and limestone.

6w2 — Dark green, grey, and purple, medium to fine grained wacke.

6s — Bedded green feldspathic arenite.

6c2 — Green to light green laminated chert and siliceous argillite; grades laterally into 6c1.

6c1 — Laminated white chert horizon.

6v — Dark green, foliated amphibole–bearing tuff characterized by very thin white stringers.

6w1 — Grey, foliated tuff and wacke; laminated chert, minor argillite.

6g — Light green, bedded argillite, minor black argillite.

GRANDUC HANGING WALL: VARIED SEQUENCE

5p6 — Light green and grey siliceous argillite, black pyritic argillite.

5p5 — Light green bedded argillite, local calcareous horizons.

5t3 — Light grey to black limestone.

5p4 — Light brown to dark grey, well bedded siliceous argillite.

5p3 — Grey siliceous argillite, locally well bedded.

5v2 — Dark green foliated volcanic rocks; locally with green acicular amphibole.

5w2 — Light grey siliceous wacke.

5ss — Light grey to cream, tuffaceous sandstone with a medial felsite unit.

5v1 — Green chloritic schist.

5p2 — Green bedded argillite, black pyritic argillite.

5t2 — Light grey limestone, local lenses of tuffaceous rock.

5p1 — Light brown and grey laminated siliceous argillite; minor foliated green volcanic rock.

5t1 — Dark grey graphitic limestone.

5w1 — Grey siliceous wacke; foliated tuff, plagioclase–bearing andesite; minor argillite.

WESTERN FAULT

GRANDUC HANGING WALL: DASH BANDED TUFF SEQUENCE

4w2 — Light green to greenish–grey phyllitic wacke, locally calcareous.

4l — Light greenish–yellow to grey massive carbonate, grades laterally into 4w2

4t — Light green tuffaceous sandstone.

4w1 — Light green well bedded foliated fine grained wacke.

GRANDUC FAULT

SRms — GRANDUC MINE SERIES (unit 3): Undifferentiated; dacite crystal tuff, chert, conglomerate, phyllite, wacke, limestone, exhalative iron formation, and massive sulphides.

SRms — GRANDUC MINE SERIES (unit 3):

3v2 — Dark green lapilli tuff, chert pebble conglomerate with a black calcareous matrix; minor dark green foliated volcanics.

3v1 — Green chloritic phyllite, wacke; minor calcareous horizons.

3l — Grandue limestone: light grey to dark grey graphitic limestone, local marginal calcareous tuff.

3c — Black, grey, and white laminated chert and siliceous wacke.

3p3 — Black argillite chip conglomerate, black pyritic argillite; includes magnetite–rich horizons, and cream and brown wacke.

3p1 — Light grey bedded tuffaceous argillite.

3v1 — Green to black volcanic, and volcaniclastic rocks, dark grey and green phyllite, green foliated wacke; minor cream laminated chert, augite and/or feldspar–bearing flows at or near the base of the unit. Includes interbedded chert, magnetite iron formation, and massive sulphides.

SRfw — GRANDUC FOOTWALL UNITS (units 1 to 2): Undifferentiated; argillite, tuff andesite flows and breccia.

SRfw — GRANDUC FOOTWALL UNITS (units 1 to 2)

GRANDUC UPPER FOOTWALL SEQUENCE:

2p5 — Dark grey to green argillite; minor volcanic rocks.

2ss — Light brown tuffaceous sandstone.

2p4 — Rusty weathering, black pyritic argillite.

2v — Dark green, tuffaceous argillite; minor augite bearing andesite flows.

2p3 — Dark grey, magnetite–bearing calcareous argillite; local pyrite and chalcopyrite(?) bearing horizons.

2p2 — Dark grey bedded siliceous argillite.

2p1 — Green siliceous phyllite; minor calcareous horizons, some lenses of epidote.

GRANDUC LOWER FOOTWALL SEQUENCE:

1v — Dark grey–green augite–bearing andesite flows; minor tuff.

1w — Light grey siliceous wacke; minor breccia and tuff.

1l — Green to grey lithic tuff (+/– augite phenocrysts), andesite tuff.

HAZELTON GROUP

MOUNT DILWORTH FORMATION (Toarcian):

MD — Intermediate to felsic pyroclastic rocks including dust, ash, crystal, lithic and lapilli tuff. Locally pyritiferous (5 to 15%) and gaseneous. Minor chalcedonic quartz veins.

BETTY CREEK FORMATION (Pliensbachian to Toarcian):

BC — Heterogeneous purple, grey and green, massive to bedded pyroclastic and sedimentary rocks, and minor pillow lava.

UNUK RIVER FORMATION (Norian to Pliensbachian):

Ufl — Undifferentiated; argillite, siltstone, andesite volcanic rocks, minor limestone and conglomerate.

Ufv2 — Upper andesite tuffs: Dust, ash, crystal and lapilli tuff, and minor welded tuff and interstratied sediment (210 +/– 7 Ma, U–Pb zircon). Orthoclase > Plagioclase + hornblende porphyritic andesite flows (Premier Porphyry) near top of formation (194.8 +/– 2 Ma, U–Pb zircon).

Ufs2 — Upper siltstone member: Carbonaceous thin–bedded argillite, siltstone, sandstone, with local basal conglomerate and limestone.

Ufv1 — Lower andesite tuffs: Mainly ash tuffs with lesser dust and lapilli tuff, augite porphyry and two–feldspar porphyry flows, and minor sandstone and siltstone.

Ufs1 — Lower siltstone member: Carbonaceous thin–bedded argillite and siltstone.

SYMBOLS

Geological contact:
defined
approximate
assumed
Faults:
defined
approximate
assumed

Axial surface trace:
anticline
syncline
Bedding:
inclined
vertical
measured tops
overturned
Foliation:
inclined
vertical

Lineation:
mineral lineation
minor fold axis

inches 0 1 2
centimetres 0 2 3 4 5

This reference scale bar is accurate only when the original image is still printed at the same size as the image, therefore it is not accurate for the original size.

SCALE 1" = 400'

400 0 400 800 1200

FEET

GRANDUC MINES LTD. (N.P.L.)	
Report by: P.J. McGuigan, P.Geo.	GRANDUC MINE, STEWART, B.C.
Date: May 15, 1992	SECTION A – A' (15000N)
NTS: 104 B/1,8	
Mining Division: Skeena	Cambria Geological Ltd.
Ref. # BBOSECTA	Map: 3

521018