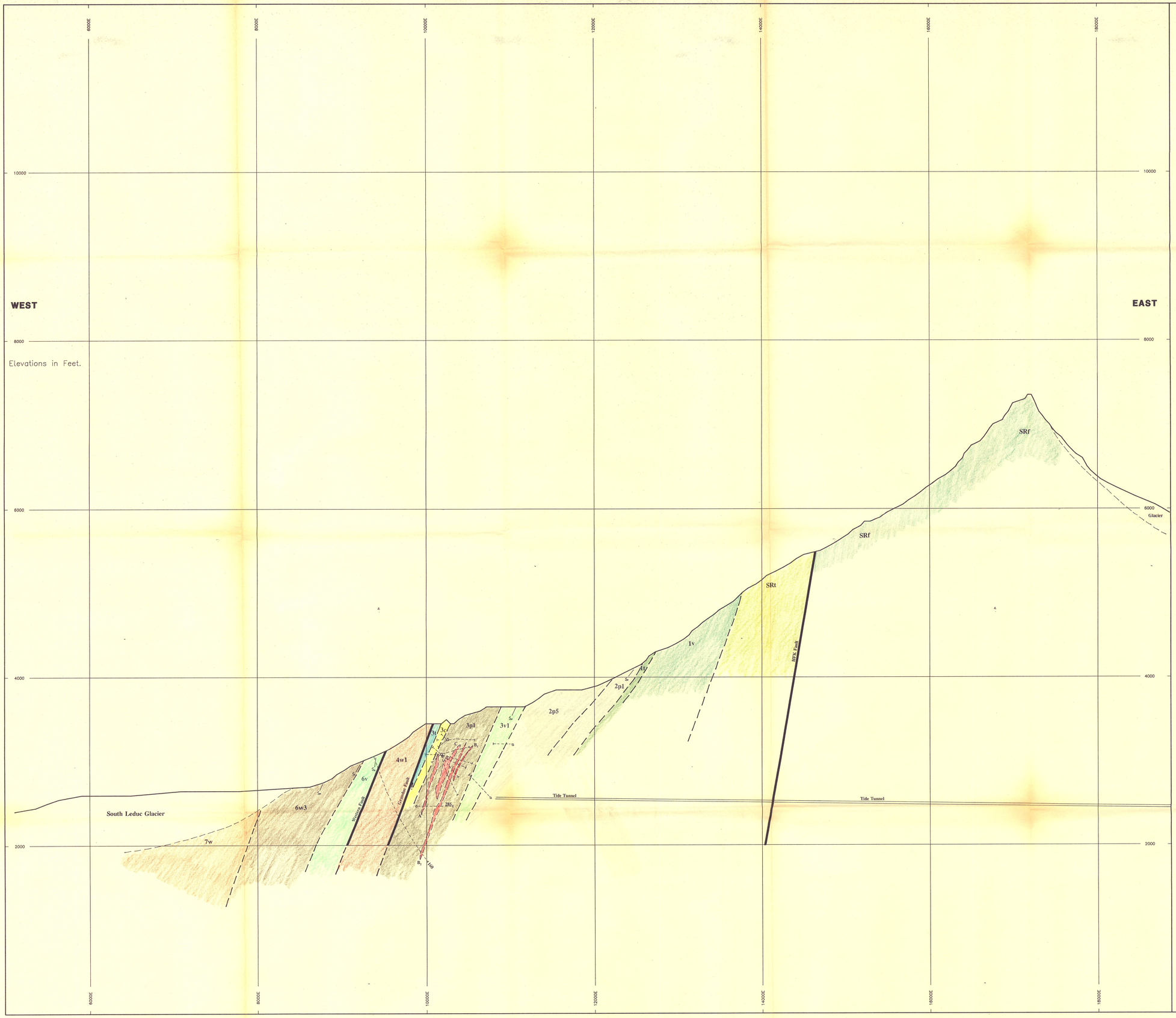



## LEGEND

INTRUSIVE ROCKS

Eocene

| | | |
|---|---|---|
| CC | COAST COMPLEX | CC: COAST COMPLEX: Granitoid batholiths and stocks. Medium to coarse grained, biotite granite; biotite+/-hornblende granodiorite; minor quartz diorite. |
| | | CCd: Fine to medium grained diorite and quartz diorite. |

Early to Middle Jurassic

| | |
|---|---|
| GM | GRANDUC MOUNTAIN INTRUSIONS: Fine to medium grained diorite to quartz monzodiorite, locally foliated. |
| BG | BUCKIE 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 (208.5 +/- 8 Ma, U-Pb zircon). |

VOLCANIC AND SEDIMENTARY ROCKS

Triassic to Jurassic

SALMON RIVER FORMATION (Tisonian 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. |
| 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 sulphide 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. |
| 6a | Bedded cream feldspathic arenite. |
| 6c2 | Cream 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. |
| 6p | 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. |
| 5l3 | 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 calcular 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. |
| 5l2 | Light grey limestone, local lenses of tuffaceous rock. |
| 5p1 | Light brown and grey laminated siliceous argillite; minor foliated green volcanic rock. |
| 5l1 | Dark grey graphitic limestone. |
| 5w1 | Grey siliceous wacke; foliated tuff, plagioclase-bearing andesite; minor argillite. |
| | WESTERN FAULT |
| | GRANDUC HANGING WALL: SASH BANDED TUFFY 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 |
| SRma | GRANDUC MINE SERIES (unit 3): Undifferentiated; dacite crystal tuff, chert, conglomerate, phyllite, wacke, limestone, exhalative iron formation, and massive sulphides. |
| SRma | GRANDUC MINE SERIES (unit 3): |
| 3v2 | Dark green lapilli tuff, chert pebble conglomerate with a black calcareous matrix; minor dark green foliated volcanics. |
| 3w1 | Green chloritic phyllite, wacke; minor calcareous horizons. |
| 3l | Granduc Limestone: Light grey to dark grey graphitic limestone, local marginal calcareous tuff. |
| 3c | Black, grey, and white laminated chert and siliceous wacke. |
| 3p2 | 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 spilite. |
| | GRANDUC LOWER FOOTWALL SEQUENCE: |
| 1v' | Dark grey-green augite-bearing andesite flows; minor tuff. |
| 1w | Light grey siliceous wacke; minor breccia and tuff. |
| 1t | 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 gossaneous. 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 (Hettangian to Pliensbachian):

| | |
|---|---|
| UR | Undifferentiated; argillite, siltstone, andesite volcanic rocks, minor limestone and conglomerate. |
| URu2 | Upper andesite tuffs: Dust, ash, crystal and lapilli tuff, and minor welded tuff and intercalated 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). |
| URu2 | Upper siltstone member: Carbonaceous thin-bedded argillite, siltstone, sandstone, with local basal conglomerate and limestone. |
| URu1 | Lower andesite tuffs: Mainly ash tuffs with lesser dust and lapilli tuff, augite porphyry and bas-feldspar porphyry flows, and minor sandstone and siltstone. |
| URs1 | Lower siltstone member: Carbonaceous thin-bedded argillite and siltstone. |

SYMBOLS

Geological contact:
- defined
- approximate
- assumed

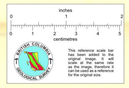
Faults:
- defined
- approximate
- assumed

Axial surface trace:
- anticline
- syncline

Bedding:
- inclined
- vertical
- measured tops
- overturned

Foliation:
- inclined
- vertical

Lineation:
- mineral lineation
- minor fold axis




This reference scale bar has been added to the original drawing. When scaling, all dimensions must be relative to this bar, which can be used as a reference 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 B – B' ( TIDE TUNNEL ) |
| NTS: 104 B/1,8 | |
| Mining Division: Skeena | Cambria Geological Ltd. |
| Ref. # B80SECTB | Map: 4 |

521019