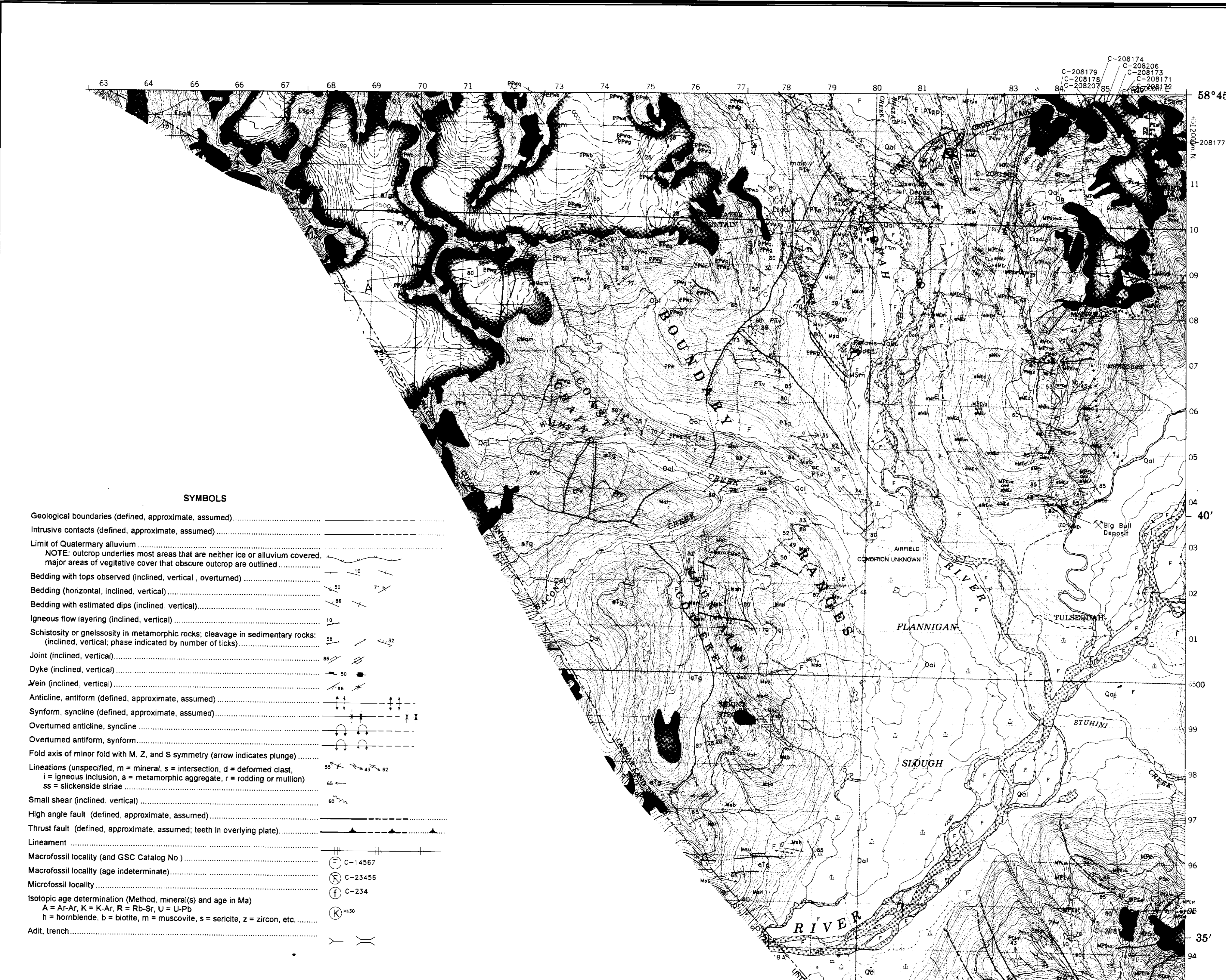
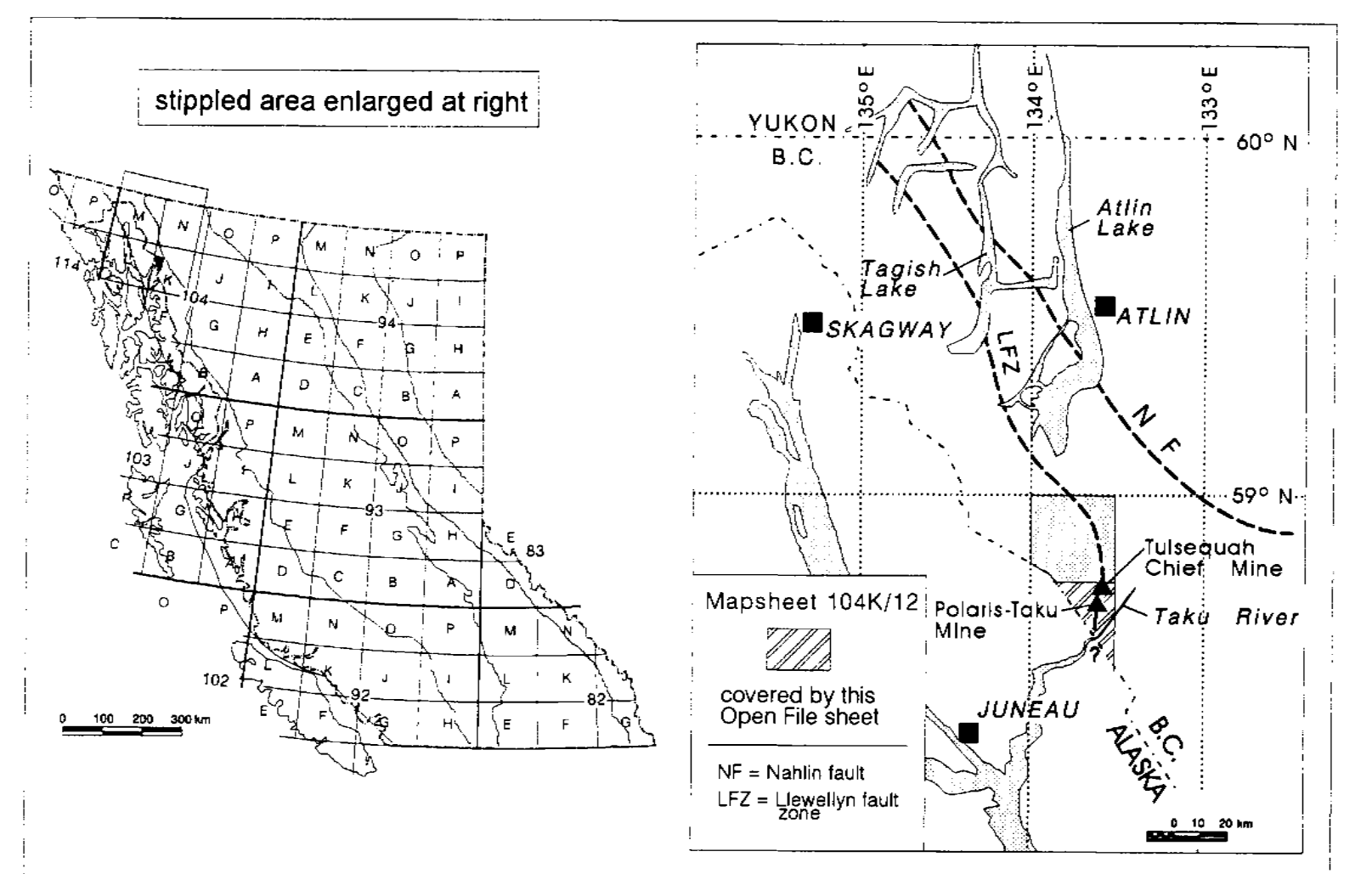


Geological Survey Branch
OPEN FILE 1994-3
(Sheet 1 of 3)

TULSEQUAH RIVER MAP AREA GEOLOGY AND LEGEND

N.T.S. 104K/12
By M.G. Mihalyuk, M.T. Smith, K.D. Hancock,
S. Dudka and J.G. Payne

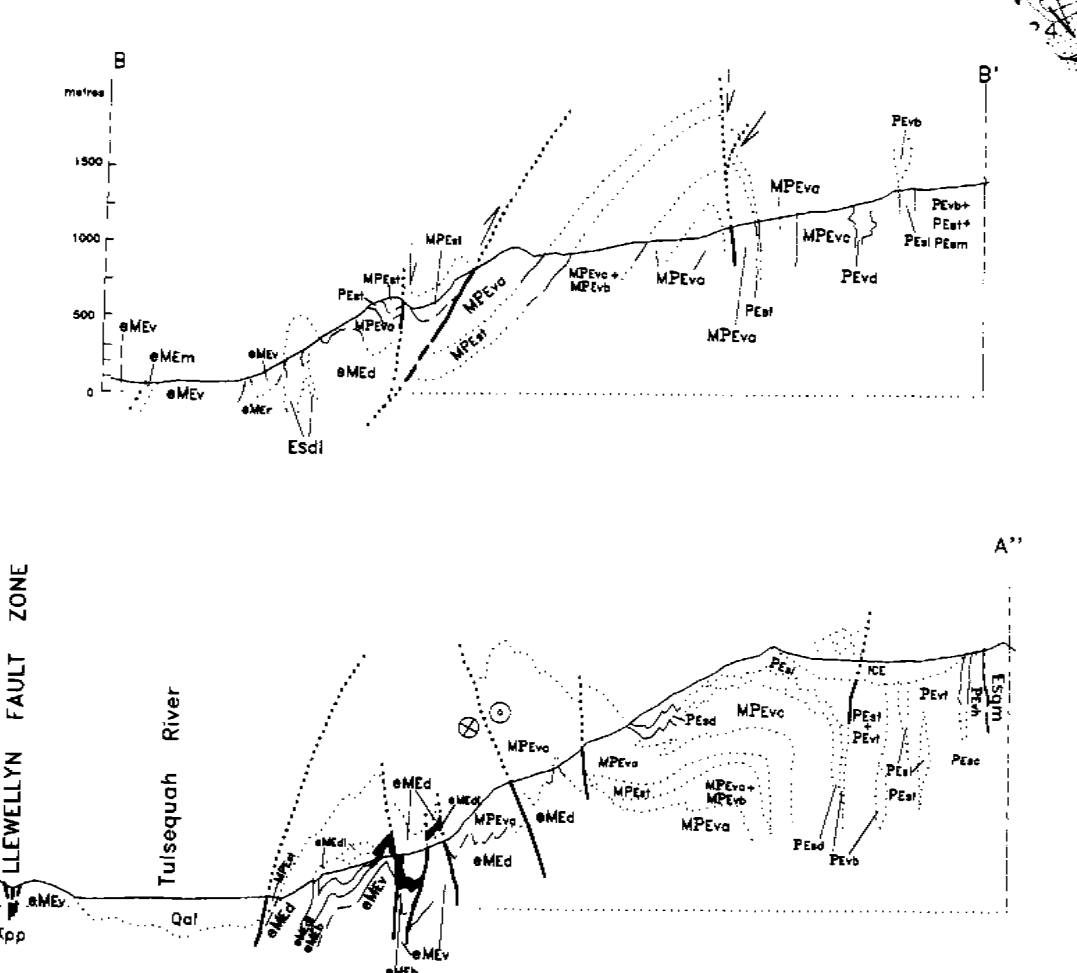
SCALE 1:50 000
Kilometres



SYMBOLS

- Geological boundaries (defined, approximate, assumed)
- Intrusive contacts (defined, approximate, assumed)
- Limit of Quaternary alluvium
- NOTE: outcrop underlies most areas that are neither ice or alluvium covered; major areas of vegetative cover that obscure outcrop are outlined
- Bedding with tops observed (inclined, vertical, overturned)
- Bedding (horizontal, inclined, vertical)
- Bedding with estimated dips (inclined, vertical)
- Igneous flow layering (inclined, vertical)
- Schistosity or gneissosity in metamorphic rocks; cleavage in sedimentary rocks; (inclined, vertical; phase indicated by number of ticks)
- Joint (inclined, vertical)
- Dyke (inclined, vertical)
- Vein (inclined, vertical)
- Anticline, antiform (defined, approximate, assumed)
- Synform, syncline (defined, approximate, assumed)
- Overturned anticline, syncline
- Overturned antiform, synform
- Fold axis of minor fold with M, Z, and S symmetry (arrow indicates plunge)
- Lineations (unspecified, m = mineral, s = intersection, d = deformed cleft, i = igneous inclusion, a = metamorphic aggregate, r = rodding or clast, ss = slickenside striae)
- Small shear (inclined, vertical)
- High angle fault (defined, approximate, assumed)
- Thrust fault (defined, approximate, assumed; teeth in overlying plate)
- Lineament
- Macrofossil locality (and GSC Catalog No.)
- Macrofossil locality (age indeterminate)
- Microfossil locality
- Isotopic age determination (Method, mineral(s) and age in Ma)
A = Ar-Ar, K = K-Ar, R = Rb-Sr, U = U-Pb
h = hornblende, b = biotite, m = muscovite, s = sericite, z = zircon, etc.
- Adit, trench

Schematic Cross Sections



- Additional Sources of Information**
- Curtis, K. (1994) Big Bull Preliminary Geology; unpublished report, Redfern Resources Ltd.
 - Dawson, G.L. (1994) Tulsequah Chief cross sections; unpublished report, Redfern Resources Ltd.
 - McGowan, P.J., Dawson, G.L. and Melnyk, W.D. (1993) Tulsequah Chief Mine, Northwestern B.C. 1992 Exploitation Program: Diamond Drilling, Geology and Reserve Estimation. B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 22-939.
 - Nelson, J. (1981) Ono-Ona Claims, Geology and Geochemical Results. B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 9007.
 - Nelson, J. and Payne, J.G. (1984) Paleozoic Volcanic Assemblages and Volcanogenic Massive Sulphide Deposits near Tulsequah, British Columbia; Canadian Journal of Earth Sciences, Volume 21, pages 379-381.
 - Payne, J.G. and Sisson, J.G. (1988) Geological Report on the Tulsequah Property, B.C. Ministry of Energy, Mines and Petroleum Resources, Assessment Report 17-054.
 - Payne, J.G., Nelson, J.L. and Gossow, G. (1981) Taku-Tulsequah Regional Geology and Mineral Deposits; unpublished report, Anglo Canadian Mining Corporation.
 - Souther, J.G. (1971) Geology and Mineral Deposits of Tulsequah Map-area, British Columbia; Geological Survey of Canada, Memoir 392.

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Topographic base map (Tulsequah River, 104K/12) published by the Surveys and Mapping Branch, Department of Energy, Mines and Resources, 1988.
NORTH AMERICAN DATUM 1927
TRANSVERSE MERCATOR PROJECTION

LAYERED ROCKS

- Og: Glacial W. moraine and proximal glacial deposits.
 - Oal: Unconsolidated outwash and alluvium.
- SLOKO GROUP; undivided as eTS; a bimodal volcanic package dominated by rhyolite flows and derived epiclastics (56 Ma)**
- ESt: Trachyte flows; maroon to light green, indurated, flow-banded, K-feldspar porphyritic; locally columnar jointed. With interflow units of tuff and/or lava-like beds.
 - Esd: Crustal lapilli tuff to breccia and/or debris flow; fragmental components are dominantly felsic to intermediate and plagioclase-phylic. Massive, tan weathering appearance when viewed from a distance.
 - Esr: Nucleolar formation; interlayered brown to olive green, tabular plagioclase-porphyrphy flows and variegated lapilli tuff and breccia. Pronounced light and dark banded appearance when viewed from a distance. Individual basalt flows are shown by the diagonal hatching where mappable.
 - Eso: Opposer formation; well-indurated, massive, black vitrophytic tuff and breccia, minor plagioclase K-feldspar porphyry flows, probably andesitic. Massive, dark weathering appearance. Underlies many of the lighter peaks in the region.
 - Esr: Rhyolite to dacite flows, breccia, tuff and ignimbrite (including pyroclastic dikes). Basal unit of the Sloko Group in many areas.
 - Esc: Basal conglomerate. Contains abundant clasts of foliated Paleozoic rocks. Minor rhyolite and minor basalt.
 - Ess: Tuffs and epiclastics; red and lesser green-weathering, may occur at any stratigraphic horizon.

- LABERGE GROUP; undivided as IL; many units within the Laberge Group sediments have limited facies-dependent distribution which results from their deposition as coalescing, subaqueous turbiditic fans dominated by greywacke.**
- ILa: Siliciclastics; grey-brown to red-brown, turbiditic, fine greywacke and siliceous shale. Beds are thin to thick. AE to nearly complete Bouma sequences; slight cleavage locally developed in fine-grained layers, otherwise no penetrative strain-related features.
 - ILa1 & 2: Argillite; a) undivided; a1) Rhythmically bedded; a2) irregularly and thin-bedded.
 - ILb: Greywacke; quartz-rich greywacke. Typically medium to thick-bedded and light-weathering.
 - ILc: Volcanogenic conglomerate and sandstone. Alternating beds of massive, green conglomerate, green to brown or maroon, thin to thick-bedded greywacke and mudstone. Locally includes black, thin-bedded calcareous to granitic shale.
 - ILd: Conglomerate; clasts can include volcanic (gyrogonite and hornblende feldspar porphyry, feldspar porphyry, sphincter malic (felsic); sedimentary light and dark grey, rarely fossiliferous, carbonate with lesser wacke and argillite), and intrusive (granite through microgranite), includes lithologies formerly mapped as "Alaskan Formation". Intrusive clasts typically vary well rounded and coarse to medium sized. Probably calcareous and may include upper Triassic proximal volcanic sandstone and tuff-rich sediment.

- STUHINI GROUP; undivided as uSt; apparent thickness less than 500m to >3 km**
- uSts: Massive carbonate of probable Upper Norian Stevia Fm., strongly veined and commonly brecciated; weathers white, grey and orange.
 - uStc: Volcanogenic conglomerate and sandstone; medium or light green to massive weathering, massive, rarely cross-bedded calcareous to granitic shale.
 - uStv: Heterolithic lapilli tuff and derived volcanoclastics; variegated, locally quartz-bearing, generally intermediate to mafic.
 - uSta,vc: Turbiditic argillite, black, calcareous to granitic, laminated to thin-bedded, and fossiliferous (uSta).
 - uStpb: Volcanic litharenite and wacke (uStvc).
 - uStsp: Augite-phyric massive flow, hyaloclastite, breccia and pillowed flows; chlorite amygdaloid.
 - uStsx: Bright green, porphyritic, augite-phyric breccia and hyaloclastite.
 - uStsp: Feldspar porphyry flows and lesser breccia.
 - uStsc: Basal conglomerate; includes mainly clasts of Mount Stapler-type lithologies and c. 220 Ma intrusives.

- MOUNT EATON SUITE; Devonian to Permian arc succession of the Stikine Assemblage**
- Permian: Pteac: Medium-bedded light grey to greenish chert; commonly interbedded thin limestone or halimite peckletons. Rarely black and rusty weathering; Permian fusulines.
 - Ptebe: Siliceous argillite to chert; with disseminated to semi-massive fine-grained pyrite; minor quartz-schistose schist. Rusty to grey weathering. May in part be schistose in origin.
 - Pteam: Limestone; massive, hackley-weathering, light grey to tan.

- Pennsylvanian to Permian**
- Ptst: Tuffaceous shale to argillite - AE turbidites, locally with cross-stratified ACE; brown to dark grey. Minor carbonate dense flow layers are common near Mount Marzger.
 - Pevh: Hyaloclastite, tuff and dense flows, feldspar-pyroxene-phylic to aphyric.
 - Pvvt: Lapilli-ash tuff; finely laminated to medium bedded, maroon to green; locally massive tuff breccia; intervals of tan, siliceous tuff.
 - Pvvt: Pillow basalt and breccia; dark green, abundantly vesicular and sparsely K-feldspar megacrystic.

- Middle Pennsylvanian**
- Pst: Brown bioclastic peckletons; tuffaceous, well-bedded with interbeds of shale, greywacke, massive limestone.
 - Pscd: Debris flow, basaltic carbonates volcanic fragments and tuffaceous shale; matrix is green volcanic sandstone to (rarely) limestone. Clasts up to several metres in diameter.
 - Pevd: Subvolcanic dike and sill and complex; dark green, medium to the crystalline with chert margins, otherwise massive, doric to gabbroic.

- Mississippian to Pennsylvanian**
- MPlst: Tuffaceous mudstone/greywacke. Distinctive white to grey green-weathering unit thin to thick-bedded, with locally common bioclastic limestone/debris flows and purple weathering massive limestone intervals; characteristic orange and white striped appearance where homesteaded.
 - MPEva: Agglomerate, breccia and minor flows; pyroxene + feldspar porphyry; mainly monomodal, commonly strongly foliated; light to medium green weathering; rare clasts weather maroon. Overlies unit eMEd at several localities, but may also occur at other stratigraphic levels.
 - MPEvc: Polymictic volcanic conglomerate and sandstone, heterolithic volcanic clasts and minor limestone clasts; massive to crudely bedded, rarely well-bedded intervals; clasts subangular to subrounded; often highly spotted; medium green to maroon.
 - MPEsm: Massive marble/limestone; hackley, light grey weathering; recrystallized; may be sparsely fossiliferous at margins.
 - MPEvb: Massive basalt to andesite tuff, lesser flows and sills. Dark green and lesser maroon, massive; generally tabular feldspar porphyritic and may contain hornblende + pyroxene phenocrysts.

- Early Mississippian**
- eMism: Recrystallized limestone; light grey-weathering, foliated.
 - eMems: Massive subthole mineralization. Most commonly pyrite + gypsum or sphalerite + galena + chalcocyanite + tetrahedrite. Adjacent rocks are sericite- altered.
 - eMed: Diabase; massive, dark green, fine to medium-grained, as semi-concordant clasts.
 - eMec: Rhyolite breccia; minor flows. Light grey to light green; may include bleached quartz amygdaloid basalt to andesite.
 - eMEd: Dacite to andesite tuff, breccia and flows, light grey to olive. Tuff may be foliated and sericitic, flows may be agglutinate. Fine-grained distal facies are typically chaotically bedded. May occur at more than one stratigraphic horizon.
 - eMeD: Basalt breccia, quartz and chlorite-vascular, pyroxene and lesser feldspar-phyric; well indurated; traces of chlorophyll in the matrix; black to dark green weathering.
 - eMeV: Undifferentiated andesite to basalt flows, breccia, and minor lapilli and ash tuff, dark green, well-bedded to massive. As mapped, does not represent a single stratigraphic interval.

- MOUNT STRONG SUITE; Mississippian?, probably in part correlative with the lower Mount Eaton suite, but commonly strongly foliated.**
- Msu: Pyroxene + biotite (+phlogopite?); well-indurated; dark green to black; locally strongly sericitized. Some bodies may be intrusive and/or remobilized and may post-date stratified rocks by a substantial time interval.
 - Msg: Gabbro; massive to brecciated; dark grey to green weathering.
 - Msh: Cherty argillite, siltstone, locally feldspar-rich wacke; indistinct dm-scale graded bedding; brown to black. Upgraded to grey to brown phyllite or quartz-feldspar-rich semichert south of Mount Strong.
 - Msb: Basaltic flow breccia, rhyolite, lapilli-ash tuff and flows; indistinct clear outlines; dark green to black.
 - Msm: Marble; medium to coarse grained; white to medium grey, massive to phyllitic with conspicuous dark grey cherty and tuffaceous interveins.
 - Msa: Meta-ash tuff. Andesitic?; light and dark green laminated.
 - Msc: Finely laminated black to tan chert and cherty argillite; gradational into Msh.

- MOUNT STAPLER SUITE; Paleozoic to Mesozoic foliated and weakly metamorphosed strata; displays relict primary textures; dominantly volcanic arc protholites; probably includes Stikine Assemblage and possibly Stuhini Group lithologies; locally gradational into both Boundary Ranges and Whitewater Assemblages.**
- PIam: Quartz monzonite to diorite or microgabbro; weakly foliated to mylonitic. Restricted to area along the Llewellyn fault zone where it may be altered or brecciated; contact relations uncertain.
 - PIgs: Massive chlorite-epidote-chlorite granulite. Restricted to immediately west of the Llewellyn fault zone. Recrystallized and compositionally layered but poorly foliated. May be a fine-grained + more recrystallized version of PIpp.
 - PIpp: Metabasalt; may be pyroxene-phylic, chlorite amygdaloid; massive to pillowed or pillow breccia, chlorite-epidote altered.
 - PItv: Mafic to intermediate tuff, typically light to medium green with dark green chloritic (phyllitic) partings; mafic textures generally not preserved.
 - PItr: Rhyolite flows, breccia and lesser tuff to tan weathering; locally upgraded to quartz-sericite schist.
 - PIa: Argillite, siltstone, greywacke, phyllite; black to dark grey; massive to laminated or thin-bedded (greywacke may be medium bedded); v. siliceous; locally interbedded with tuff.
 - PIm: Marble; tan to rosy dark grey; bedded to less rarely over 10m thick.
 - PIg: Graphic quartz-rich schistone, "grades" into unit EPvg.
 - PItd: Metadiorite; green, phyllitic; to strongly schistose; where less foliated is distinguished by 20% equant, fine-grained porphyroblasts.

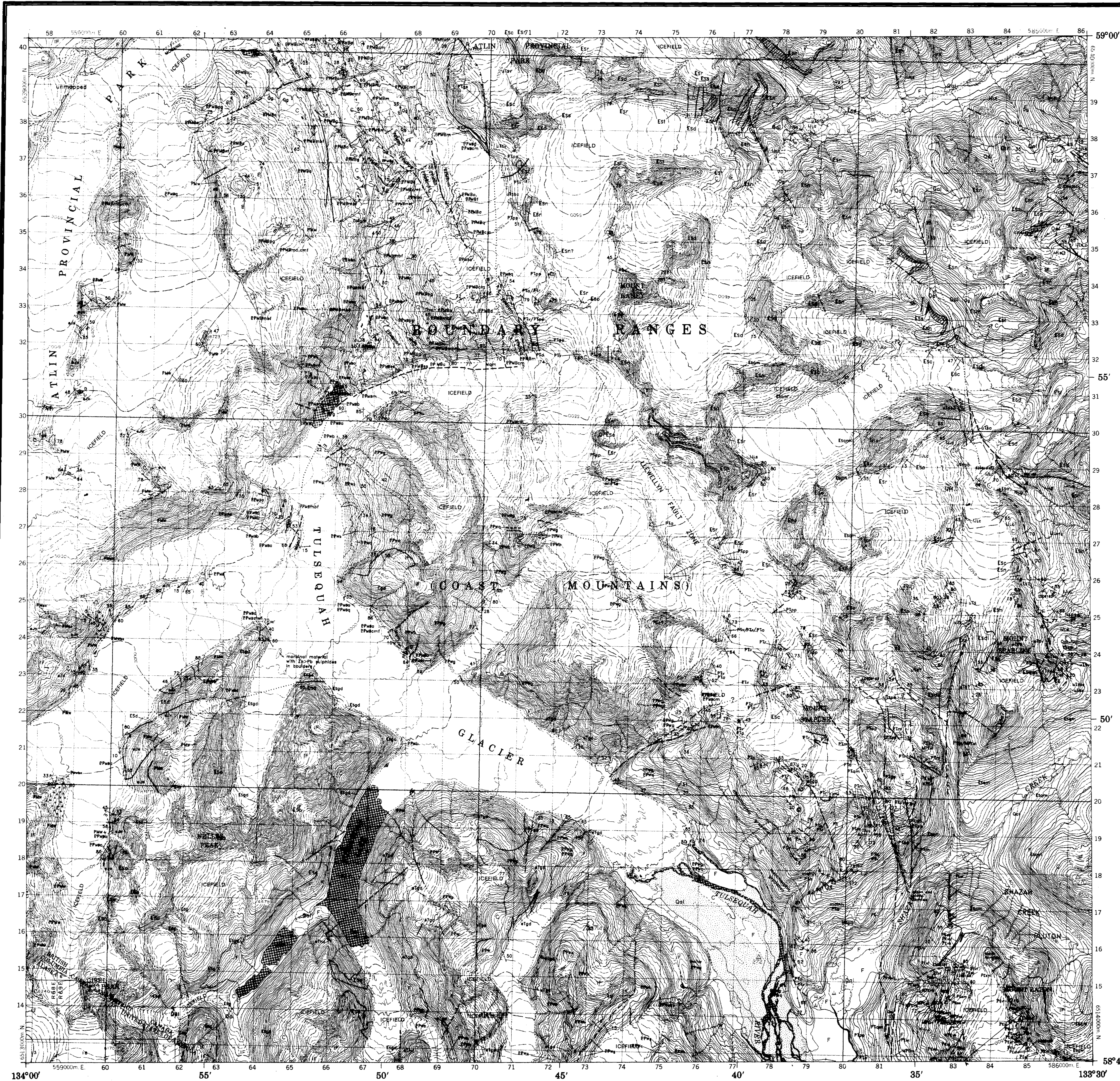
LATE PROTEROZOIC TO PALEOZOIC METAMORPHIC SUITES

- WHITewater SUITE; metamorphosed rhyolite? outer shelf and oceanic crustal slivers; Devonian-Mississippian or older.**
- EPw: UNDIVIDED WHITewater SUITE, predominantly unit EPvg.
 - EPwb: Metabasic; massive to well foliated, dark green to black, hornblende/actinolite-biotite-dioptase(?) -epidote-glaucophane + quartz green.
 - EPwq: Quartzite; white to tan, quartz + feldspar-muscovite, accessory tourmaline and sparse garnet as distinct layers being gradational contacts with unit EPvg.
 - EPwg: Graphic, quartz-rich schist; distinctive bright orange weathering, pyrrhotite-rich, with black spearspines (Mackay garnet porphyroblasts).
 - EPvr: Rhyolite; white-weathering, alternating cm-scale feldspathic and quartzose bands, relatively rare. Could represent metamorphosed felsic silt.
 - EPvu: Ultramafic; orange, white, and light green-weathering serpentinite, talc-remonte-magnesian schist and pyroxenite; locally isotaxitic, as lenses within unit EPvg; generally medium to coarse grained. Pyroxenite is coarse to very coarse, dark green to black, locally well-foliated, with interstitial phlogopite + pyrrhotite + pyrite.

- BOUNDARY RANGES SUITE**
- EPba: UNDIVIDED BOUNDARY RANGES METAMORPHIC SUITE, predominantly PPMba.
 - EPbaa: Chlorite-actinolite schist and gneiss; ranges from coarse amphibole-feldspar gneiss to fine-grained, massive granulite-chlorite, metabasite.
 - EPbab: Biotite-glaucophane-quartz and biotite schist up to 80% fine to medium-grained biotite + garnet; also includes biotite-hornblende schist; purple brown, compositionally-layered schist and gneiss. Foliation usually flat, metabasite.
 - EPbacm: Chlorite-muscovite schist, grey-green, usually with strong granulation cleavage.
 - EPbaccf: Quartz and feldspar-rich chlorite-muscovite + garnet schist unit consists of both primary, chlorite grade rocks or retrograde equivalent of unit PPMba, with chlorite pseudomorphs after garnet, psammite, psammite to quartzite (may include metadiorite); >80% quartz, + muscovite, biotite and garnet.
 - EPbaq: Quartz + sericite altered schist; white to yellow or orange weathering; in part bleached with 1-2% disseminated pyrite; derived primarily from PPMba and PPMbcf.
 - EPbag: Graphic schist and phyllite.
 - EPbam: Marble; coarse, light grey lenses; generally <2 m thick.
 - EPbamf: Quartz and feldspar-rich muscovite-biotite + garnet schist; garnets generally red-brown and unaltered.
 - EPbapq: Pelitic schist with garnet; ranges from medium grey and fine-grained to coarse amphibole-feldspar-biotite rock, all with abundant, 0.5-1.5 cm red-brown garnets.

- META-INTRUSIVE ROCKS**
- eMh: Hale Mountain hornblende-biotite granulite to diorite orthogneiss; plagioclase porphyroblasts; hornblende-biotite-quartz-epidote; epidote garnet partly of igneous? origin and surface coating; locally with well-developed feldspar auger; Early Jurassic.
 - eMm: Quartz monzonite, hornblende and biotite; locally weakly foliated, brecciated, generally pyritic, sometimes bleached; grey to slightly green-weathering; Mesozoic; Triassic.
 - eMlg: Pyroxene and muscovite-bearing orthogneiss; greenish with grey to copper-ash interlayered with green, medium-grained amphibole, granite (MTG) and granulite (MTG); Paleozoic to Triassic.
 - eMlx: Wann River Gneiss, hornblende-rich gneiss, well layered on a m to m-scale, lesser biotite; locally brecciated (PMba) and intruded by younger felsic rocks; Permian.
 - eDMqm: Quartz monzonite orthogneiss; Devonian-Mississippian.

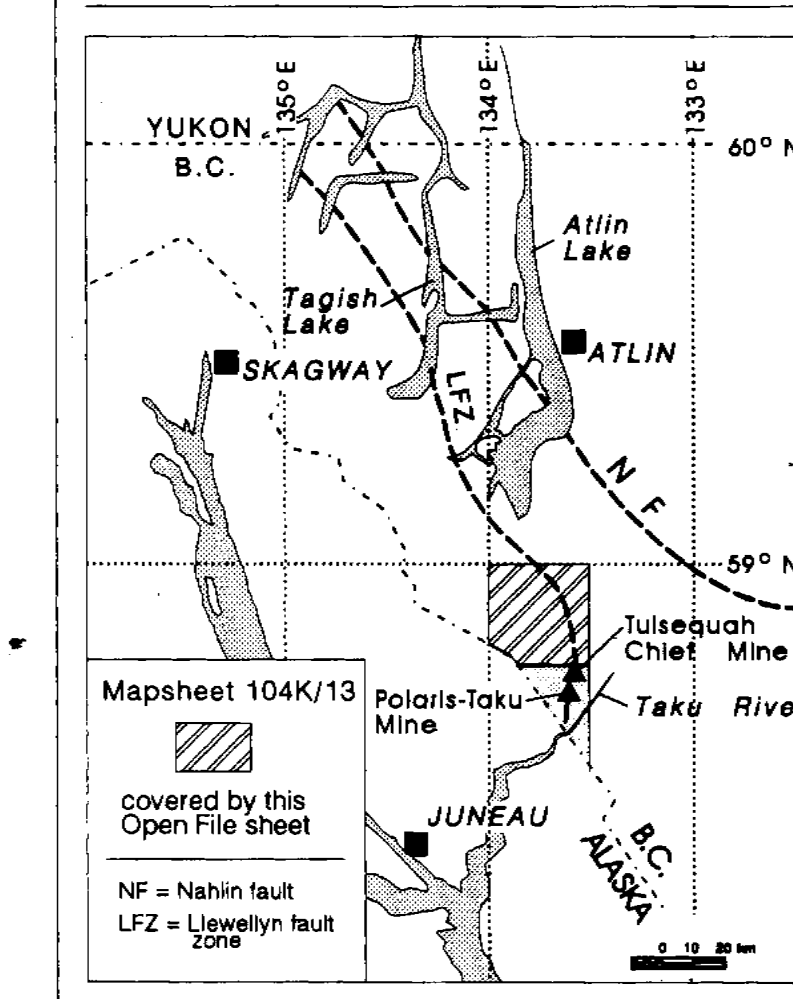
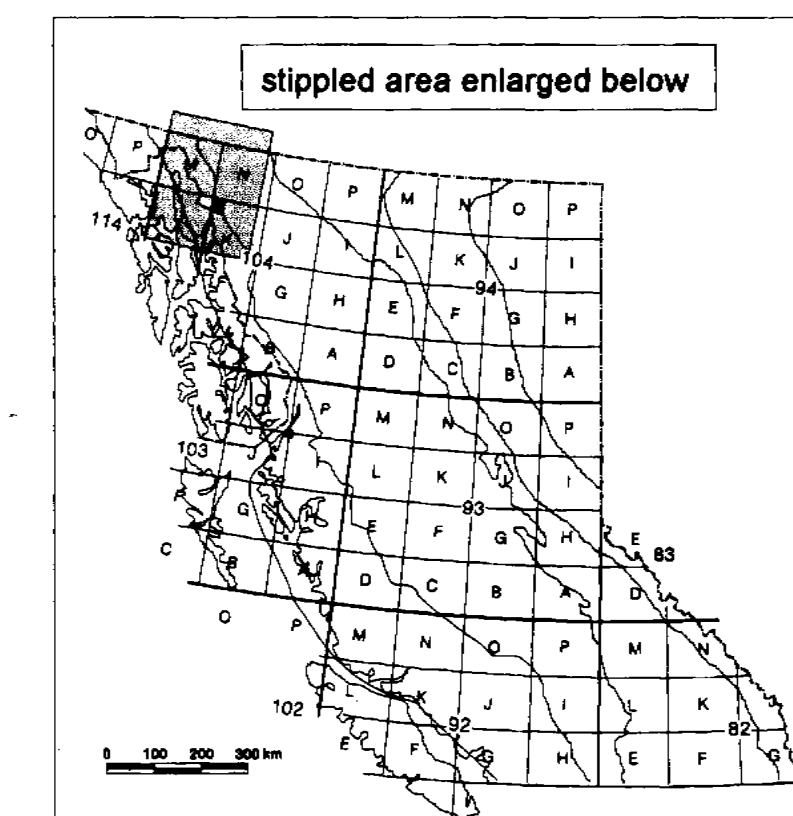
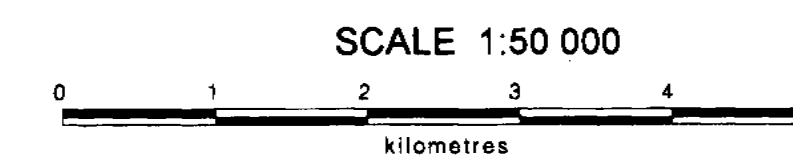
- INTRUSIVE ROCKS (NON-METAMORPHOSED)**
- Tgd: Granodiorite; medium to coarse-grained; fresh, massive, grey, wide-spaced jointing; probably part of a 25 Ma intrusive belt that extends into adjacent parts of southeast Alaska, Tertiary.
 - Esq, Esqd, Escl, Esqm: Sloko intrusive suite, medium-grained granite (Esq), granulite to tonalite (Esqd), diorite (Escl) and quartz monzonite (Esqm); probably contemporaneous with 56 Ma Sloko Group dykes, Eocene.
 - eTgd: Hornblende-biotite granulite; mainly medium grained, white to grey weathering; locally xenolith-rich (<1 km offset) cut by Esq, early Tertiary, possibly Palaeocene.
 - eThd: Hornblende-biotite granulite; intruded by late Tertiary eTgd.
 - eJkg: Biotite granite; medium to coarse-grained, weakly chloritized to fresh; locally with wide joint spacing (up to 5 m); massive, previously mapped as Jura-Cretaceous, but could be as young as Tertiary.
 - TKt: Hornblende tonalite, weakly foliated, epidote-altered, Triassic to Cretaceous?
 - PMqd: Wendy Lake intrusive complex, quartzite to diorite, well-indurated; may be correlative with Mississippian diorite, but seems to mainly crosscut Mesozoic fabrics; possibly synkinematic.



Geological Survey Branch
OPEN FILE 1994-3
 (Sheet 2 of 3)

**TULSEQUAH GLACIER MAP AREA
 GEOLOGY**

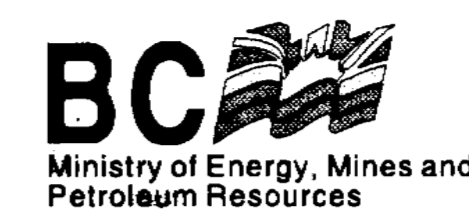
NTS 104K/13
 By M.G. Mihalyuk, M.T. Smith, K.D. Hancock
 and S. Dudka



Topographic base map (Tulsequah Glacier, 104K/13) published by the Surveys and Mapping Branch, Department of Energy, Mines and Resources, 1980.

NORTH AMERICAN DATUM 1927
 TRANSVERSE MERCATOR PROJECTION

Recommended citation:
 Mihalyuk, M.G., Smith, M.T., Hancock, K.D., and Dudka, S. (1994). Tulsequah Glacier Map Area Geology (104K/13); B.C. Ministry of Energy, Mines and Petroleum Resources, Open File 1994-3, Sheet 2 of 3.



Geological Survey Branch

OPEN FILE 1994-3

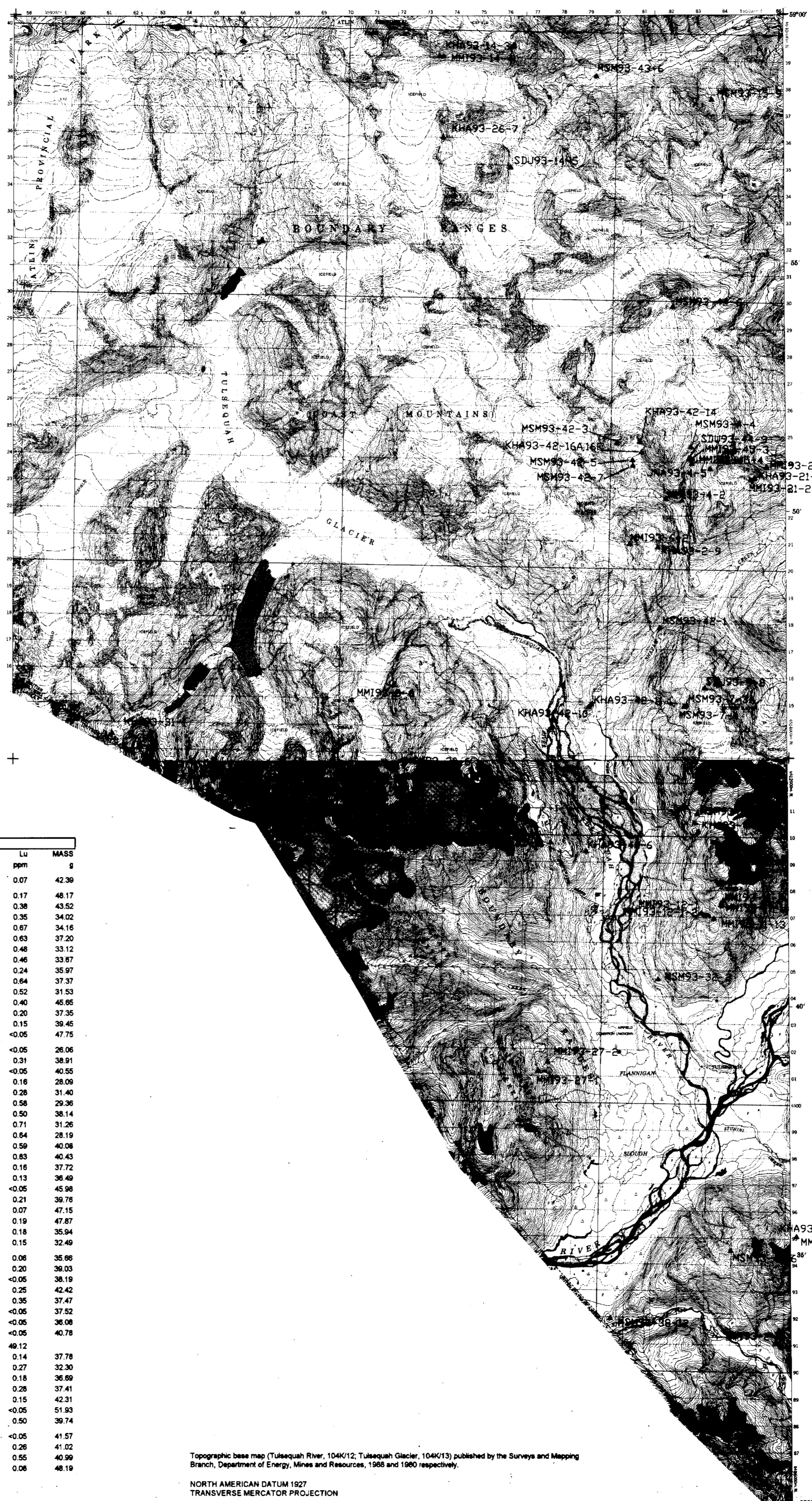
(Sheet 3 of 3)

TULSEQUAH RIVER AND GLACIER MAP AREA LITHOGEOCHEMISTRY

NTS 104K/12, 13

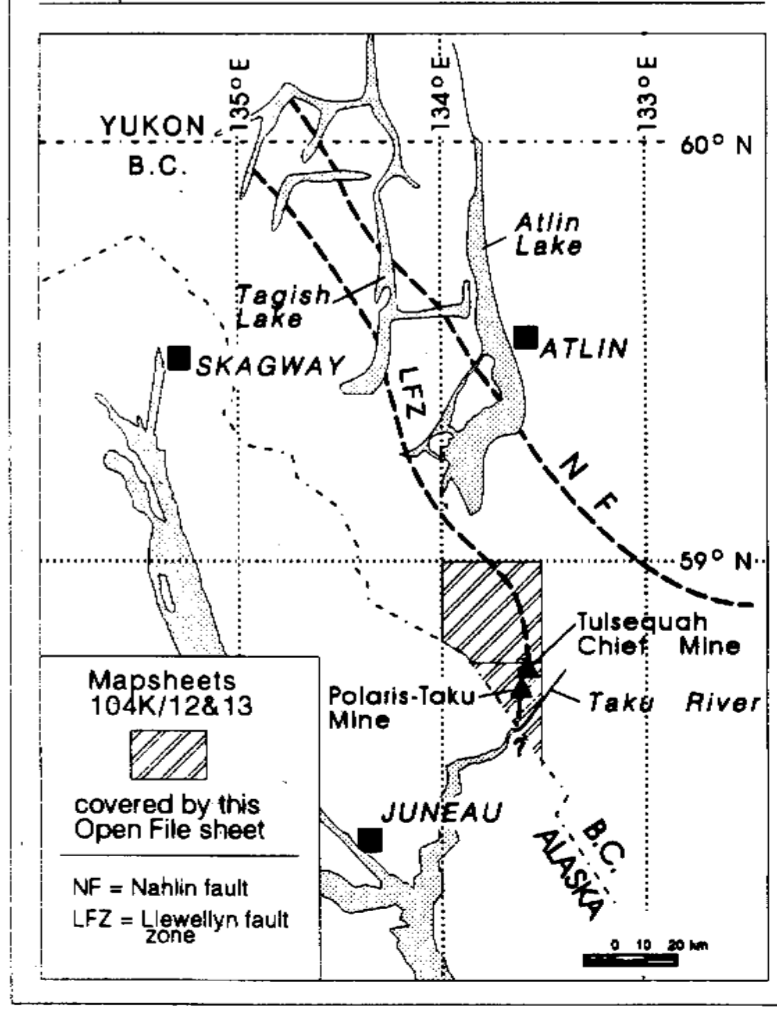
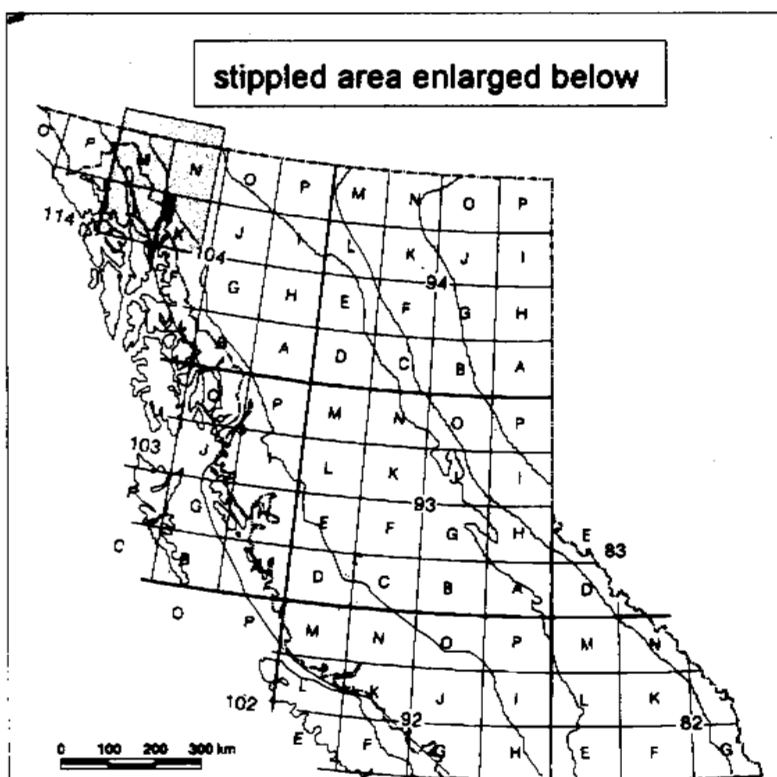
By M.G. Mihalynuk, M.T. Smith, K.D. Hancock,
S. Dudka and J.G. Payne

SCALE 1:100 000



FIELD NUMBER	NTS UTM E	UTM N	INDUCTIVELY COUPLED PLASMA ANALYSIS RESULTS																													
			Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Ba	Ti	B	Al	Na	K	W		
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KHARS-2-9	13	581800	6520735	1	114	2	37	0.1	186	46	540	4.40	6	5	2	88	0.6	2	3	57	0.82	0.044	2	179	5.03	62	0.15	3	3.12	0.12	0.69	10
KHARS-4-15	12	583500	6510125	8	57	11	214	1.6	53	18	666	4.12	4	5	2	140	0.5	17	2	38	1.76	0.038	3	17	0.90	134	0.07	6	2.24	0.38	0.14	99
KHARS-11-8	12	585750	6506810	12	31	97	112	0.1	33	20	10000	1.43	33	5	2	307	0.2	2	11	17.61	0.252	11	3	0.05	122	0.03	6	0.29	0.05	0.05	27	
KHARS-14-3A	13	574505	6538800	4	3	24	24	1.0	1	26	67	1.88	14	5	4	5	0.2	3	2	0.01	0.017	28	1	0.01	112	0.01	3	0.26	0.07	0.21	112	
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KHARS-26-7	13	583700	6523375	3	10	26	15	0.4	1	18	28	0.81	30	5	3	4	0.2	2	2	0.02	0.010	10	1	0.02	107	0.01	2	0.31	0.04	0.22	128	
KHARS-31-1	13	581550	6513450	1	2	6	13	0.1	1	37	133	1.96	2	5	9	6	0.2	2	2	0.01	0.008	20	1	0.13	41	0.01	2	0.21	0.04	0.30	311	
KHARS-40-6	12	579325	6509350	4	114	11	126	0.4	116	53	1008	6.61	187	5	2	46	1.4	14	2	108	2.24	0.058	4	117	2.86	69	0.01	2	2.21	0.04	0.11	87
KHARS-41-7	11	587460	6465000	131	213	20	1212	1.5	180	56	256	5.33	66	14	5	13	0.9	6	2	47	0.40	0.029	8	11	0.78	204	0.10	2	0.24	0.10	0.13	540
KHARS-42-10	13	579350	6514750	20	104	4	20	0.1	18	41	266	2.53	13	5	2	22	0.2	2	4	0.02	0.010	10	1	0.02	107	0.01	2	0.31	0.04	0.22	128	
KHARS-42-11	13	579480	6514860	2	328	2	20	0.9	38	37	182	4.73	8	5	2	110	0.7	2	2	25	1.78	0.075	22	44	1.18	0.18	2	0.87	0.06	0.20	171	
KHARS-42-14	13	581080	6524880	16	99	366	259	1.7	26	37	558	3.06	160	5	5	8	3.1	8	3	28	0.10	0.031	7	36	0.93	46	0.01	3	0.98	0.05	0.27	200
KHARS-42-18A	13	581128	6524275	8	333	227	1312	7.1	61	37	2063	4.00	79	5	3	15	21.2	2	12	27	0.46	0.034	3	56	0.97	35	0.10	3	1.32	0.08	0.43	179
KHARS-42-18F	13	581228	6523875	1	259	2	41	1.3	22	168	83	33.40	6	5	2	2	2.2	2	2	0.13	0.012	2	1	0.11	2	0.01	2	0.10	0.01	0.01	19	

FIELD NUMBER	NTS UTM E	UTM N	INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS RESULTS																															
			Au	Ag	Aa	Ba	Co	Cr	Ca	Fe	Hf	Hg	Mo	Na	Ni	Rb	Sb	Sc	Se	Ta	Th	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Yb	Lu	MASS	
JNARS-4-5	13	583700	6523700	<2	<5	5.5	190	41	<2	1.83	<1	<1	0.55	<20	<15	2.1	6	<3	<0.5	1.4	1.2	340	74	6	10	<5	1.1	0.4	<0.5	0.9	0.07	42.38		
KHARS-2-9	13	581800	6520735	<2	<5	11.0	230	46	990	7	670	<1	61	<1	0.76	220	27	20	30	<0.5	0.77	1.1	15	80	4	7	<5	1.3	0.5	<0.5*	1.1	0.17	46.17	
KHARS-4-15	12	583500	6510125	19	<5	340.0	2200	17	63	3.91	<2	<1	0.74	110	22	20.0	27	2.0	1.1	0.17	2.2	5.5	110	275	16	27	<5	3.5	1.1	1.0	3.3	0.38	43.52	
KHARS-11-8	12	585750	6506810	10	<5	560	700	13	12	<1	1.57	<1	<1	15	0.10	0.86	<15	0.8	3	<0.5	0.9	1.8	36	173	11	9	8	1.7	0.6	0.6	3.2	0.35	34.02	
KHARS-14-3A	13	574505	6538800	<2	<5	23.0	2600	22	<2	3	1.85	8	<1	<1	3.67	<28	80	3.5	10	<1.2	20.0	7.3	120	111	42	71	24	5.3	1.3	1.1	4.8	0.67	34.16	
KHARS-21-3	13	583700	6523380	51	81	35.0	7000	11	<1	5	3.97	4	<1	1.80	0.16	<20	28	1.8	8	<1.5	0.22	0.16	10	22	0.1	2.4	0.7	0.8	0.3	0.83	0.37	30.20		
KHARS-26-7	13	583700	6523375	6	<5	670.0	1400	14	<1	1.81	<20	140	5.7	7	<1	1.81	<20	140	5.7	7	<1	1.81	<20	140	5.7	7	<1	1.81	<20	140	5.7	7	<1	1.81



Recommended citation:
Mihalynuk, M.G., Smith, M.T., Hancock, K.D., Dudka, S. and Payne, J.G. (1994): Tulsequah
River and Glacier Map Area Lithochemistry (104K/12, 13). B.C. Ministry of Energy, Mines
and Petroleum Resources, Open File 1994-3, Sheet 3 of 3.

Topographic base map (Tulsequah River, 104K/12; Tulsequah Glacier, 104K/13) published by the Surveys and Mapping
Branch, Department of Energy, Mines and Resources, 1988 and 1990 respectively.

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