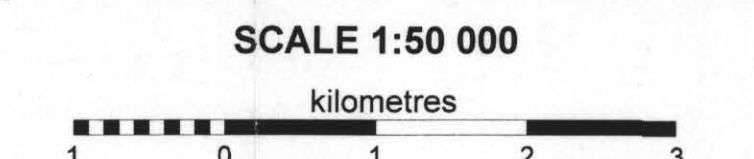


PRELIMINARY GEOLOGY OF THE GATAGA RIVER AREA, BRITISH COLUMBIA

NTS 94L7, 8, 9 and 10
 by Filippo Ferri, JoAnne Nelson and Chris Rees
 SCALE 1:50 000

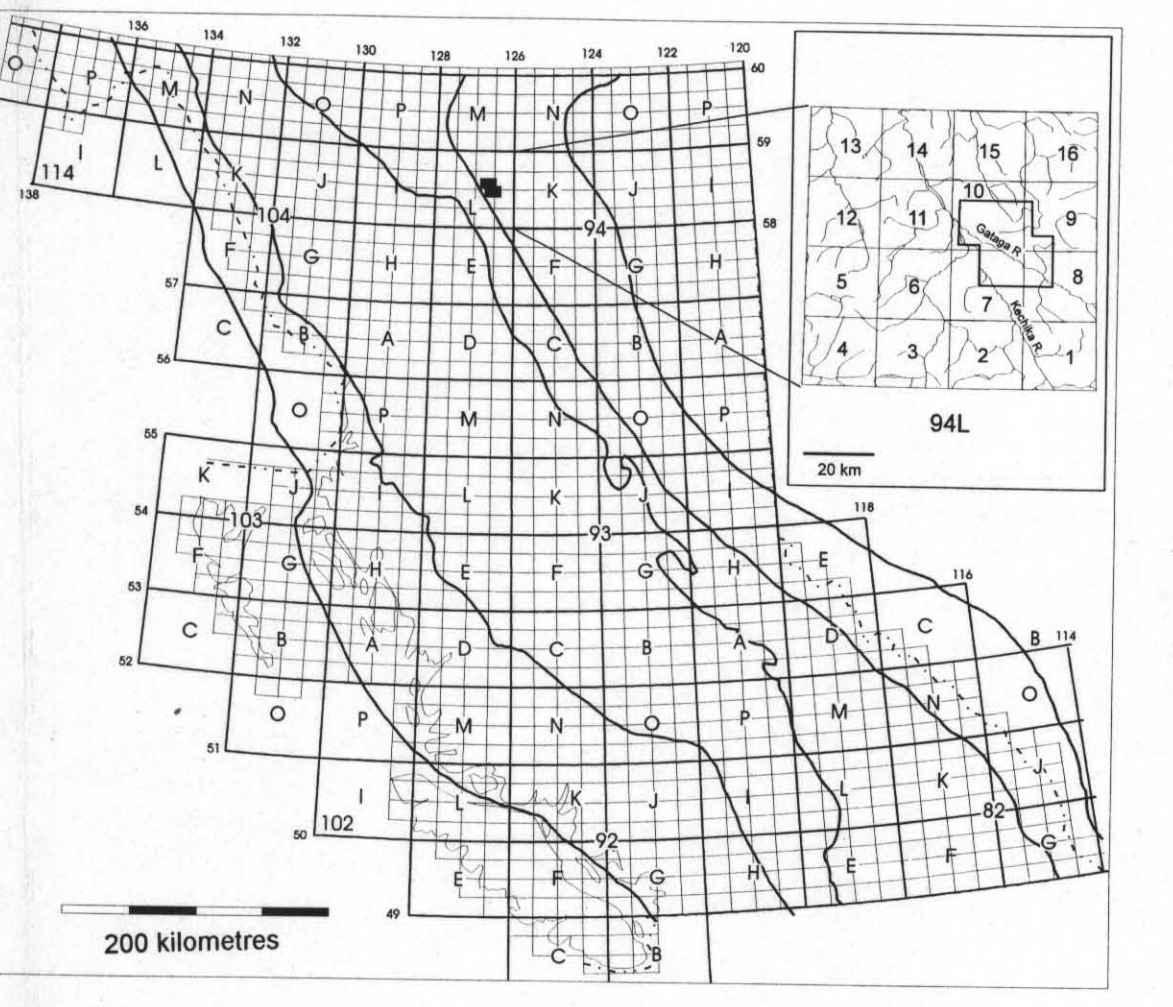
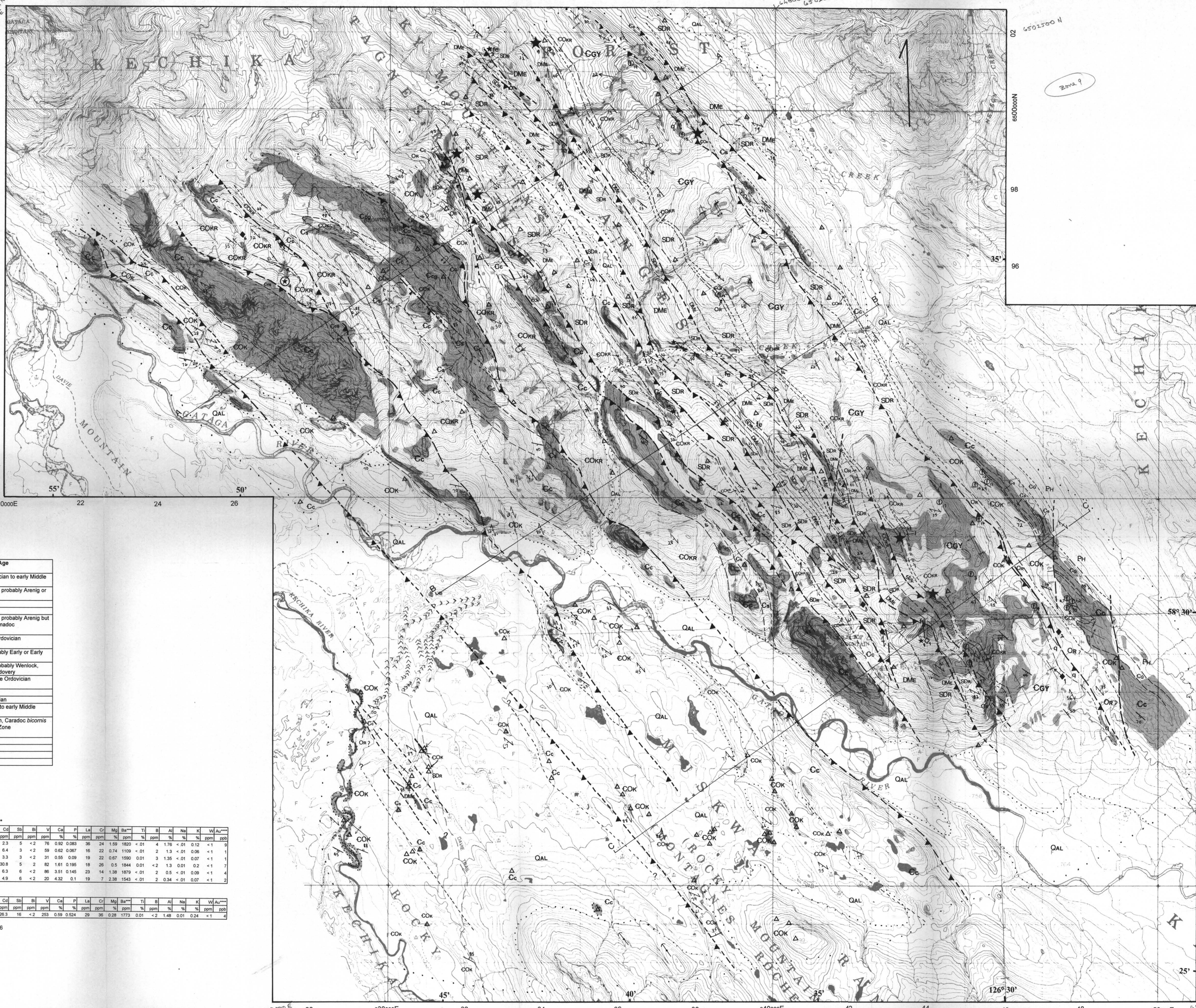


LAYERED ROCKS

- CENOZOIC**
 QUATERNARY
 QAL Area of thick alluvium and glacial deposits.
- PALEOZOIC**
 MIDDLE DEVONIAN TO LOWER MISSISSIPPIAN
 EARL GROUP
 DME Shale, slate, siliceous shale; dark grey to black, grey to blue or silvery blue-grey weathering; may be carbonaceous. Sandstone to siliceous argillite or argillite; dark grey to black and sandy; blocky thin to moderately bedded. Sandstone (s) to pebbly conglomerate; grey, massive, predominantly chert-qtzite. Fine limestone; grey, fine to coarsely crystalline; argillaceous partings; locally replaced by bauxite.
- ORDOVICIAN TO DEVONIAN
 ROAD RIVER GROUP
 LOWER SILURIAN TO LOWER DEVONIAN
 SDR SILURIAN SLTSTONE: Grey to greenish-grey, buff-orange weathering, dolomite, tabular to planar bedded with flaky partings. Grey slate and siltstone. Lesser grey, grey to orange weathering, thin to moderately bedded dolomite to limestone.
- ORDOVICIAN
 OR Brown and orange weathering argillite, and tan to orange weathering, thin planar laminated limestone. UPPER PART: Chert to siliceous argillite, dark grey to black, thin to moderately bedded and interbedded with shale. Local pale grey to greenish buff (g).
- UPPER CAMBRIAN TO LOWER ORDOVICIAN
 KECHIKA GROUP
 COK NORTH OF GATAGA RIVER AND EAST OF BROWNIE MOUNTAIN: Lower part: slate and siltstone, grey to dark grey, interbedded with thin to moderately bedded, grey and orange weathering limestone to siliceous argillite. Minor orange weathering, thin planar laminated limestone. UPPER PART: Chert to siliceous argillite, dark grey to black, thin to moderately bedded and interbedded with shale. Local pale grey to greenish buff (g). WEST OF BROWNIE MOUNTAIN AND SOUTH OF GATAGA RIVER: Slate, calcareous siltstone and siltstone, grey to silvery grey, buff and orange weathering; commonly stepped to bedded. Lesser grey, thin bedded to lensoidal limestone.
- CAMBRIAN
 LOWER TO UPPER CAMBRIAN
 GOG GROUP AND YOUNGER CLASTICS (Cgy)
 GOG GROUP
 Cc Quartz sandstone to siliceous argillite to beige, thinly bedded and flaky; interbedded with green grey to dark grey siltstone to silty shale which may contain colour banding or striping. Basal section contains thick bedded, tan to white massive to cross-bedded quartzite (q) and lenses to massive beds of grey-brown weathering argillaceous-bearing limestone. Sections of limestone breccia and grey, buff to brown or tan weathering interbedded limestone, sandy limestone to calcareous sandstone and quartzite (i) in upper part.
 Cc Limestone: massive to thickly bedded, grey to tan weathering, grey to white, micritic to finely recrystallized. Local buff to orange weathering massive dolomite. May contain thick sections of massive to cross-bedded sandy limestone and dolomite interbedded with thin to cross-bedded quartzite to quartz sandstone. Lesser carbonate breccia and rare quartz-pebble conglomerate.
 Cs Siltstone, slate and quartzite; grey and brown to tan weathering, thin to moderately bedded. Interbedded with beige grey to buff weathering sandy limestone, sandy dolomite, dolomite and dark grey argillaceous limestone.
- MIDDLE CAMBRIAN
 Ccg Conglomerate: massive, granule to boulder, polymict, brown to grey or green, brown weathering.
- LOWER CAMBRIAN
 CG Quartzite and quartz sandstone: white to brown weathering, white, brown to beige, thick to massively bedded; may be calcareous and cross-bedded. Lesser grey siltstone and sandy siltstone, and orange weathering, cross-bedded limestone and sandy limestone.
- UPPER PROTEROZOIC
 HYLAND GROUP
 UPH Phyllite, grey to green; sandstone, thin bedded, very fine grained. Lesser light to dark grey and cream siltstone and calcareous siltstone.

SYMBOLS

- Geological boundary (defined, approximate, assumed).....
- Normal fault (approximate, assumed).....
- Thrust fault (approximate, assumed).....
- Fault (approximate, assumed).....
- Bedding, tops known (inclined, overturned, vertical).....
- Bedding, tops unknown (inclined, vertical).....
- Cleavage (inclined, vertical).....
- Bedding-cleavage intersection.....
- Anticlinal fold axis (defined, assumed).....
- Synclinal fold axis (defined, assumed).....
- Anticlinal fold axis, overturned (defined, assumed).....
- Synclinal fold axis, overturned (defined, assumed).....
- Drumlins.....
- Eskers.....
- Ferrous occurrence.....
- Lithochemistry sample site.....
- Baritic horizon (isolated, extensive; number refers to lithochemical analysis).....
- Stream sediment site.....
- Soil sample site.....
- Limit of Quaternary cover.....
- Fossil locality.....
- Cross-section line.....
- Area of significant rock exposure.....
- Isolated outcrops, station locations.....
- Limit of mapped area.....



Fossil identifications

Map No.	GSC Loc. No.	Easting	Northing	Taxa	Age
f1	C-208851	647700	6487350	Chironomus sp.	mid-Early Ordovician to early Middle Ordovician
f2	C-208852	647700	6487350	Chironomus sp.	Early Ordovician, probably Aenean of late Tremadoc
f3	C-208853	648150	6488000	archaeocyathids	Early Cambrian
f4	C-208854	648750	6487200	archaeocyathids	Early Cambrian
f5	C-208855	647650	6487200	Chironomus sp.	Early Ordovician, probably Aenean but possibly late Tremadoc
f6	C-208857	647650	6487700	Chironomus sp.	probably Early Ordovician
f7	C-208858	647650	6487700	Chironomus sp.	Ordovician, probably Early or Early Middle
f8	C-208860	645200	6485975	Phlebotomus sp.	Early Silurian, probably Wenlock, possibly late Landrevian
f9	C-208861	645150	6485790	Chironomus sp.	late Middle to Late Ordovician
f10	C-208862	645245	6480375	graptolite fragments	not diagnostic
f11	C-208863	645455	6480450	graptolite fragments	probably Ordovician
f12	C-208864	645055	6480450	Chironomus sp.	Early Ordovician to early Middle Ordovician
f13	C-208866	638540	6485300	Dinorthis sp.	Middle Ordovician, Canadian biomes Zone or ciliogera Zone
f14	C-208867	638225	6501250	archaeocyathids	Early Cambrian
f15	C-208868	637600	6489285	archaeocyathids	Early Cambrian
f16	C-208869	645200	6489410	archaeocyathids	Early Cambrian
f17	C-208870	644310	6489500	archaeocyathids	Early Cambrian

*B.S. Norford, Geological Survey of Canada, Calgary, Alberta.

Stream Sediment Analysis

Map No.	Easting	Northing	Si	Al	Fe	Mn	Zn	Cu	Pb	Ag	Hg	As	Sr	Ca	Mg	Na	K	Li	Co	Ni	Mo	V	Cr	M	B	Se	Te	U	Th	Pu
1	647700	648735	4.26	26.3	263.0	0.4	41.9	2.08	3.7	0.5	0.2	0.7	37.0	2.3	0.2	1.6	0.02	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

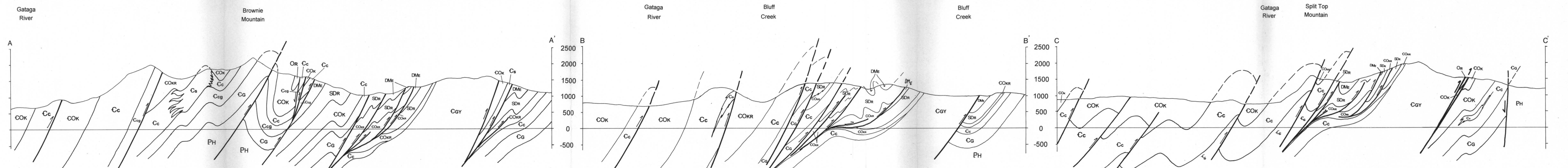
Soil Analysis

Map No.	Easting	Northing	Si	Al	Fe	Mn	Zn	Cu	Pb	Ag	Hg	As	Sr	Ca	Mg	Na	K	Li	Co	Ni	Mo	V	Cr	M	B	Se	Te	U	Th	Pu
1	647700	648735	50.1230	11.2815	1.058	0.018	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017

All elements except Ba were obtained from Azote Analytical Laboratories Ltd., 4522 Hastings St., Vancouver, B.C., V6A 1R6. Ba analysis from Corvex Exploration Research Laboratory, 1468 East Fraser St., Vancouver, B.C., V5L 1V9.
 *Samples digested in 10ml HClO4-HNO3-HClHF and analyzed by ICP method.
 **Samples digested in 3ml 3:1:2 HCl-HNO3-H2O and analyzed by ICP method.
 ***Element analyzed by XRF.
 ****Element analyzed by the assay.

Lithochemical Analysis

Map No.	Easting	Northing	Si	Al	Fe	Mn	Zn	Cu	Pb	Ag	Hg	As	Sr	Ca	Mg	Na	K	Li	Co	Ni	Mo	V	Cr	M	B	Se	Te	U	Th	Pu
1	647700	648735	3.8640	24.207	1.210	0.196	0.224	0.020	0.010	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002



BASE MAP INFORMATION
 ELEVATIONS IN METRES ABOVE SEA LEVEL
 CONTOUR INTERVAL IS 20 METRES
 TRANSVERSE MERCATOR PROJECTION
 NORTH AMERICAN DATUM 1927
 BASE MAP PRODUCED BY THE SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, OTTAWA, ONTARIO.
 THE 1984 MAGNETIC BEARING IS 26°58' EAST OF GRID NORTH. ANNUAL CHANGE DECREASING 9.2'
 GRID NORTH IS 1°50' EAST OF TRUE NORTH.
 ONE THOUSAND METRE TRANSVERSE MERCATOR GRID, ZONE 9

Recommended Citation
 Ferri, F., Nelson, J. and Rees, C. (1995). Preliminary Geology of the Gataga River Area (94L7, 8, 9 and 10). B.C. Ministry of Energy, Mines and Petroleum Resources, Open File 1995-4.
 Copies of this map may be obtained from Crown Publications Inc., Victoria, B.C.

REFERENCES
 F. Ferri, J. Nelson and C. Rees (1995). Geology and Mineralization of the Gataga River Area, Northern Rocky Mountains (94L7, 8, 9 and 10). In Geological Fieldwork 1994, Grant, B. and Newell, J.M. editors. B.C. Ministry of Energy, Mines and Petroleum Resources, Paper 1995-1, pages 277-288.
 Gabrielse, H. (1962a). Geology, Kechika (94L). Geological Survey of Canada, Map 42-1962.