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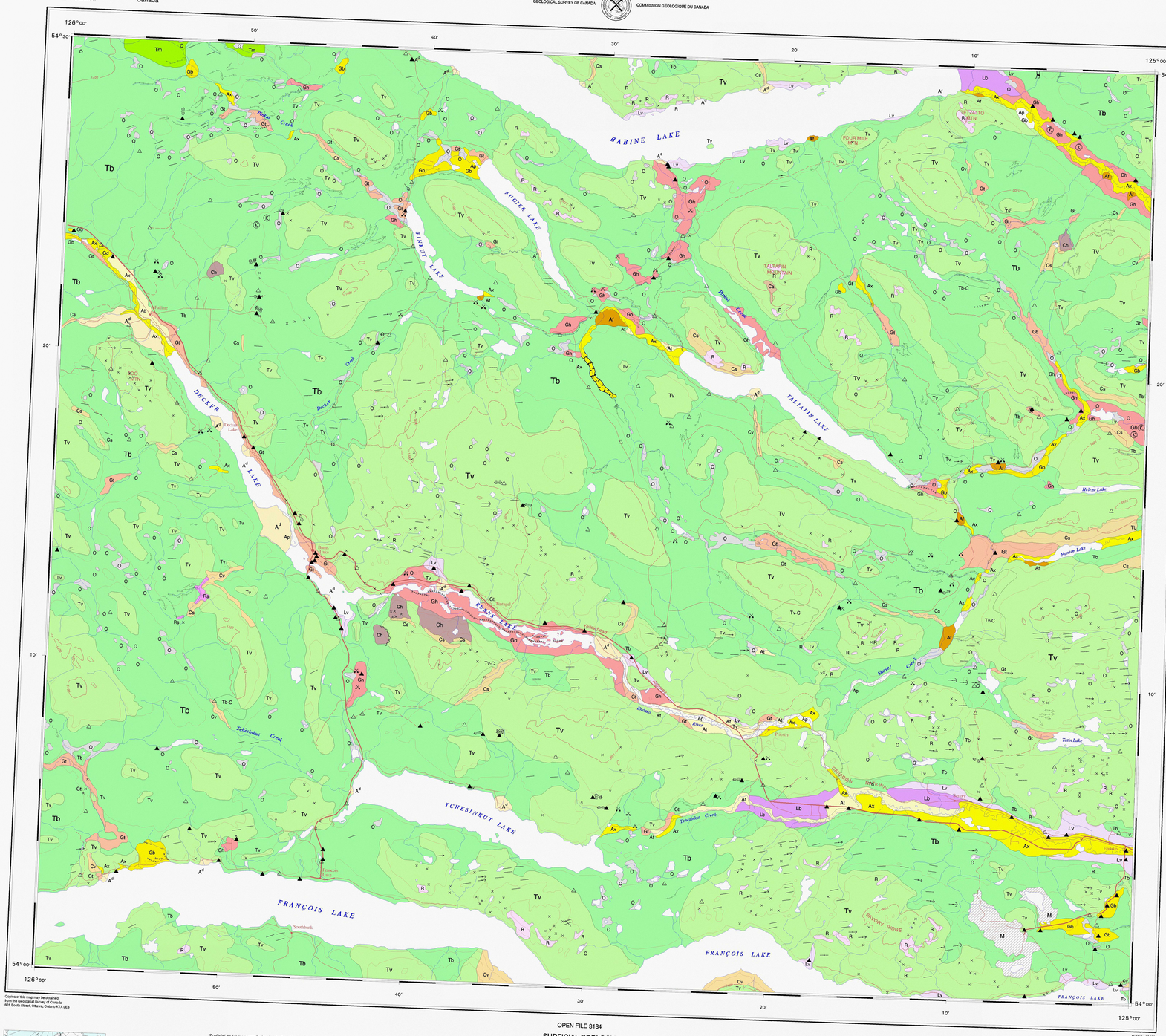
GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA



Copies of this map may be obtained from the Geological Survey of Canada 601 South Street, Ottawa, Ontario, K1A 0E8

Published 1996

LEGEND

M — ***ANTHROPOGENIC TERRAIN (MAN-MADE):*** *Rubble,diamicton,gravel,sand and/or clay of variable thickness emplaced by human activity, primarily encountered in the vicinity of mine sites*

O — ***ORGANIC DEPOSITS:*** *Peat and muck; occurs as poorly drained terrain such as fen and bogs; organic deposits too small to be show at this scale occur within other units (e.g. within abandoned meltwater channels); average thickness of 3-4 m, maximum thickness 10 m*

ALLUVIAL (FLUVIAL) DEPOSITS: *Deposits of streams and rivers, composed of well stratified to massive silt, sand and, gravel with minor clay;*

Ap — ***Floodplain sediments:*** *sand and silt, stratified to massive, commonly including discontinuous organic materials; in many places underlain by coarser gravel; occurs as flat surfaces close to river level; prone to periodic flooding*

At — ***Terrace sediments:*** *gravel overlain by a veneer of sand and silt; mostly well stratified; underlies level surfaces well above river level*

A^d — ***Deltaic sediments:*** *sand and gravel (generally greater than 2 m) underlain by silt and clay; occurs at or below present lake levels at the mouth of a stream*

Af — ***Fan sediments:*** *gravel, sand, silt, and clay; poorly sorted; occurs as a fan-shaped form at the toe of slopes and where streams debouch onto flat valley floor; composition is dependent on source materials*

Ax — *Sand, silt, and gravel with minor organic materials; consists of varying amounts of Ap, At and Af, overlain and intermixed with colluvium in areas of steep slopes*

COLLUVIAL DEPOSITS: *Diamicton and rubble, material accumulated from various mass wasting processes varying from slope wash to rock falls. Composition is dependent on source materials*

Cv — ***Colluvium veneer:*** *rock fragments in a matrix of sand, silt and clay, poorly sorted, discontinuous; commonly 1-2 m thick; mostly mapped on steep slopes (> 40°) of secondary valleys*

Ch — ***Landslide material:*** *sediments of various texture (dependent on source materials) with hummocky topography present at the bottom and on slopes affected by landslides; thickness generally greater than 3 m; predominantly in unconsolidated sediments commonly but not uniquely found in terrain underlain by glaciolacustrine sediments*

Cs — ***Colluvium on steep slopes (> 40°):*** *cover of rock fragments in a matrix of sand, silt and clay; occurs largely in unconsolidated sediments; slopes show abundant signs of erosion such as gullies; 2-3 m thick*

Ca — ***Colluvial apron and talus:*** *rubble accumulations at the bottom of steep slopes (> 40°); includes high proportions of local bedrock fragments; commonly thicker than 5 m*

GLACIAL LAKE DEPOSITS: *sand, silt, and clay deposited in a glacial lake; well stratified, commonly occurs as rhythmites with rare debris flow interbeds; sand is more abundant at elevation close to the former lake limit; outliers are common on adjacent units; contacts between subunits are gradational*

Lv — ***Veneer of glacial lake sediments:*** *discontinuous cover of silt with minor sand and clay; includes shallow water deposits, i.e., well sorted sand near limits of former lakes; average thickness of 1 m*

Lb — ***Blanket of glacial lake sediments:*** *continuous cover of silt with minor sand and clay, not thick enough to completely mask the underlying topography; generally 2-4 m thick*

GLACIOFLUVIAL DEPOSITS: *Sand and gravel deposited by glacial meltwater. Eskers are too small to show as separate units at this scale of mapping and are indicated by symbol*

Gt — ***Glaciofluvial terrace sediments:*** *sand and gravel, stratified to massive; occurs as terraces interpreted as glaciofluvial in origin because of their elevation above alluvial units or location in ancient meltwater conduits; average thickness is greater than 10 m*

Gh — ***Ice contact deposits:*** *coarse sand and gravel; deposited in contact with glacier ice; surface is hummocky and may include kettle depressions; locally can include* ***Gt; generally greater than 2 m thick***

Gb — ***Blanket of glaciofluvial sediments:*** *sand and gravel, stratified to massive; sediment cover is continuous but fails to obscure the underlying morphology; greater than 2 m thick*

Gd — ***Proglacial deltaic sediments:*** *coarse sand and gravel, underlain by sand and silt; deposited as a delta in a glacial lake, more than 10 m thick*

TILL: *deposits of glacier ice; consists of rock fragments of all sizes in a sandy to clayey matrix, but usually sandy silt; includes colluvium on steeply sloping terrain and isolated outcrops, and small inclusions of glaciofluvial sediments especially in valley bottoms and where the suffix 'c is used (abundant' meltwater channels e.g* ***Tv-c)***

Tm — ***Thick till, hummocky:*** *till cover which masks the underlying topography; surface expression generally undulating with drumlinoid features common; bedrock outcrops are absent; sediment thickness greater than 3 m*

Tb — ***Till blanket:*** *till with scarce bedrock outcrops; more than 1 m thick*

Tv — ***Till veneer:*** *till with abundant bedrock outcrops; less than 1 m thick; Tv-c area marked by abundant meltwater channels*

BEDROCK: *Sedimentary, metamorphic, volcanic, and intrusive rocks of Precambrian through Cenozoic age*

R — ***Bedrock:*** *mostly outcrop but with local thin patches of till and colluvium which rarely exceeds 2 m*

Rs — ***Steep bedrock:*** *outcrop on steeply sloping terrain, patchy cover of till, colluvium and local bedrock fragments increase in abundance downslope; includes alpine areas typified with aretes and cirques*

SYMBOLS

- Geological boundary
- Debris flow track
- Landslide scar (large)
- Abandoned meltwater channel (large)
- Abandoned meltwater channel, small (flow direction known, unknown)
- Kettle hole (small)
- Esker (direction of former water flow known, unknown)
- Drumlin (direction of flow known, unknown)
- Crag and tail
- Glacial fluting
- Glacial striae (direction of ice flow known, unknown)
- Glacial striae, subdued (direction of ice flow unknown)
- Outcrop
- Gravel pit
- Field observation and sampling site
- Field observation site

LOCATION MAP

Surficial geology compilation by A. Plouffe 1995, Geological Survey of Canada

Digital map compilation by A. Moore, Geological Survey of Canada

Digital cartography by J.D. Namraway, Geological Survey of Canada

Electrostatic plot produced by Geological Survey of Canada

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

OPEN FILE 3184

SURFICIAL GEOLOGY

BURNS LAKE

BRITISH COLUMBIA

Scale 1:100 000 - Échelle 1/100 000

Kilometres 2 0 2 4 6 8 Kilometres

Transverse Mercator Projection
CM 125°00', Scale Factor 1
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Projection transverse de Mercator
M.C. 124°30', facteur d'échelle 1
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Digital base map assembled and modified by the Geological Survey of Canada from digital bases compiled by the Survey, Mapping and Remote Sensing Branch

Copies of the topographical editions covering this map area may be obtained from the Canada Map Office, Department of Natural Resources Canada, Ottawa, Ontario, K1A 0E9

Mean magnetic declination 1996, 23°20' E, decreasing 8.7' annually. Readings vary from 22°06' E in the SE corner to 23°34' E in the NW corner of the map

Elevation in metres above mean sea level

93 M/NE	93 M/NW	93 N/NE	93 O/NW
93 M/SE	93 M/SW OF 3071	93 N/SE OF 2842	93 O/SW
93 L/NE	93 K/NW OF 3183	93 K/NE OF 2846	93 J/NW
93 L/SE	93 K/SW OF 3184	93 K/SE OF 3182	93 J/SW
93 E/NE	93 F/NW	93 F/NE	93 G/NW

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

Canada — British Columbia — Mineral Development Agreement — Entente

Contribution to the Canada-British Columbia Agreement on Mineral Development (1985-1990), entente auxiliaire rejetée en vertu de l'Entente Canada-Colombie-Britannique sur le développement économique et régional

Contribution à l'Entente Canada-Colombie-Britannique sur l'exploitation minérale (1985-1990), entente auxiliaire rejetée en vertu de l'Entente Canada-Colombie-Britannique le développement économique et régional

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