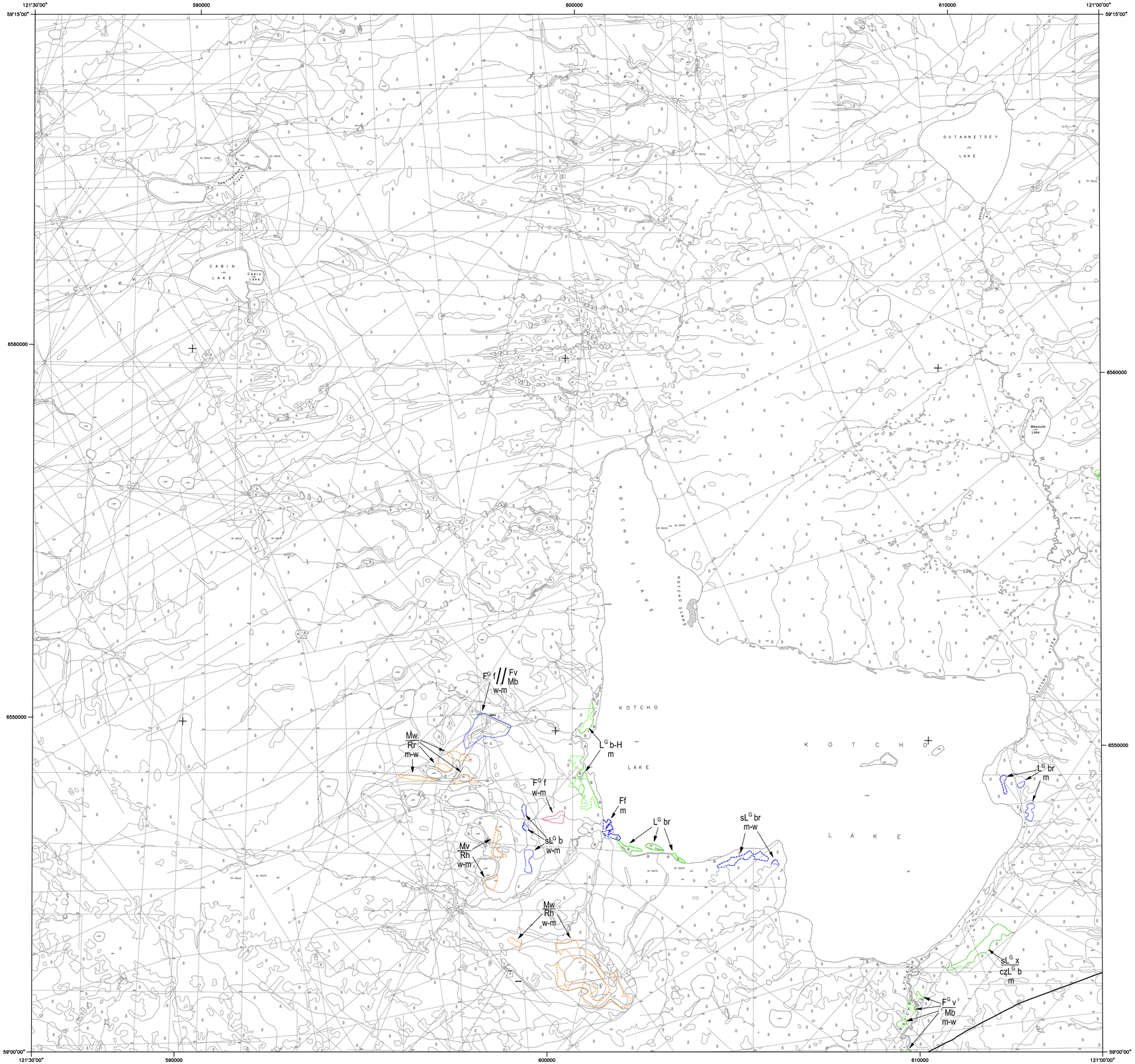


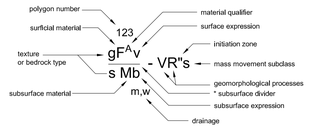
Scale 1:50,000

0 1 2 km

094P/03

LEGEND

EXAMPLE OF MAP SYMBOLS



* The subsurface divider divides layered units which are identified by groups of letters arranged one above the other where one or more kinds of surficial materials overlie a different material or bedrock.

TERRAIN LEGEND **

SURFICIAL MATERIALS:

- E Eolian
- M Morainal (Till)
- F Fluvial
- F^{G} Glaciofluvial
- C Colluvial
- L^{G} Glaciolacustrine
- O Organic
- U Undifferentiated Sediments
- R Bedrock
- D Weathered Bedrock
- V Volcanic

COMPLEX MAP UNIT SYMBOLS:

aCb / R where,

- / = Greater than (i.e. 60:40 proportionally)
- // = Much greater than (i.e. 80:20 proportionally)
- ≋ = Discontinuous

MATERIAL QUALIFIERS

Superscript:

- **A** Active
- **I** Inactive

TEXTURE:

- **c** Clay (< .002 mm)
- **z** Silt (.002 - .06 mm)
- **s** Sand (.06 - 2 mm)
- **p** Pebbles (2 - 64 mm, (sub) rounded)
- **k** Cobbles (64 - 256 mm, (sub) rounded)
- **b** Boulders (>256 mm, (sub) rounded)
- **r** Rubble (64 - 256 mm, (sub) angular)
- **a** Blocks (> 256 mm, (sub) angular)
- **x** Angular Fragments (> 2 mm)
- **g** Rounded Clasts (> .06 mm)
- **d** Mixed Rounded and Angular Fragments (> 2 mm)

(SUB) SURFACE EXPRESSIONS:

- **b** Blanket (> 1 m thick)
- **v** Veneer (< 1 m thick)
- **w** Mantle of variable thickness (0-3m)
- **x** Thin veneer (2-20cm)
- **c** Cone - steeper than 26% slope
- **f** Fan - up to 26% slope
- **t** Terrace - stepped topography
- **p** Plain - 0 to 5% slope
- **r** Ridged - elongated slopes steeper than 26 %
- **h** Hummocky - 26-70% slopes
- **s** Steep - steeper than 70%
- **m** Rolling - elongated slopes with 5-26% slopes
- **u** Undulating - slopes less than 26%

MODIFYING PROCESSES:

- **-V** Gullied or Gullying
- **-A** Snow Avalanching
  - **-Am** Minor Avalanching Active
  - **-Af** Major Avalanching Active
  - **-Ao** Old Avalanche Track
  - **-Aw** Mixed Major and Minor Tracks, Active
- **-B** Braided
- **-J** Anastamosing
- **-M** Meandering
- **-E** Channelled by Glacial Meltwater
- **-H** Kettled
- **-L** Seepage Evident
- **-R** Rapid Mass Movement
  - **-R"** Mass Initiation Zone
  - **-Rb** Rockfall
  - **-Rd** Debris Flow
  - **-Rm** Bedrock Slump
  - **-Rt** Debris Torrent
  - **-Rs** Debris Slide
- **-F** Slow Mass Movement
  - **-F"** Mass Movement Initiation Zone
  - **-Fk** Tension Cracks
  - **-Fp** Lateral Spread of Fractured Bedrock
  - **-Fm** Falling Slump in Bedrock
  - **-Fu** Falling Slump in Surficial Material
- **-N** Nivation
- **-I** Irregular Channel

BEDROCK TYPES

eb	Mafic Extrusive	**uf**	Shale	**urm**	Sandstone
ea	Felsic Extrusive	**ui**	Intermediate Extrusive	**gr**	Granite
ff	Slate / Phyllite	**frm**	Gneiss / Schist	**nm**	Metasandstone

** Based on: Guidlines and Standards to Terrain Mapping In British Columbia. British Columbia Resource Inventory Commitee. 1996.

DRAINAGE CLASSES **

r	Rapid	**m**	Moderate	**p**	Poor
w	Well	**I**	Imperfect	**vp**	Very poor

m-w Indicates a gradation in drainage from moderate to well; moderate is dominant.
p,w Indicates mainly poor drainage with discrete well-drained areas (e.g. hummocks).

TERRAIN MAPPING CONVENTIONS

UNLESS SPECIFICALLY SYMBOLLED OTHERWISE, THE FOLLOWING CONVENTIONS SHOULD BE ASSUMED:

DEPTH OF MATERIAL:
Plain (p), terrace (t), fan (f) or cane (c) surface expression are blankets (ie. Consistently greater than 1 meter and generally several meters thick). Blanket (b) is not symbolled with these 4 surface expressions.

Veneers are over bedrock, unless symbolled otherwise. For example Mv indicates a shallow morainal deposit over bedrock.

STATUS OF FLUVIAL TERRAIN UNITS:
Fp , Ff units are assumed to be inactive unless otherwise identified.
Ft units involve a single fan or a series of coalescing fans (formerly called an apron).

Ft , Fft units are assumed to be inactive. Terraces are comprised of nearly flat to gently sloping surfaces bounded by a steep escarpment at, or near, the angle of repose. Note that the escarpments are steep, less stable slopes where cuts are prone to raveling. Where these less stable terrace edges are inclusions (<15% of the map unit area), they are not considered in the map unit slope stability rating.

Where a unit is comprised of a number of terraces, the unit encompasses them collectively. Larger, individual terrace escarpments are indicated by an on-site symbol as shown. -

Very large escarpments are mapped and rated separately (ie. FGbs - a steep scarp of a glaciofluvial terrace). Where large scarps are comprised of a succession of bayered materials (eg. Glaciofluvial over glaciolacustrine over morainal), these are symbolled Us (ie. Undifferentiated and steep).

COLLUVIAL TERRAINS:
Cc , Cb and Cf are considered active and may consist of single or multiple deposits. The modifying process symbol -R is used only to indicate very recent activity.

ORGANIC TERRAIN UNITS:
Small, poorly drained organic deposits (fens, swamps, bogs) are symbolled Op. Veneers and blankets are not distinguished because of high variability and insufficient field-checking to separate them.

GULLYING:
-V is applied to both individual major gullies or branching gully systems (e.g. Mb-V). frequent means a gully spacing of <250 m.

-E is applied on past-glacial meltwater channels which may have oversteepened existing terrain and may also be sybolled as shown below:

or

DEFAULT TEXTURES:
To control symbol complexity, and recognizing that certain material textures predominate within subregions, the following defaults are assumed. Specific particle sizes are indicated only if the material within a map unit is distinctively different. The defaults are:

Mv, Mb, Mw	- non-stratified mixed particles (till) In a silty, sandy matrix
Dr	- rubbly material and weathered bedrock
Cv	- rubbly sandy
Cb, Cc, Cf	- rubbly to blocky; coarsest at surface with increasing Infillings of silty sand at depth and distance from source
Ff, Fc	- mixes of pebbles and cobbles (+/- boulders) with sandy infillings; coarser sediments predominate towards sediment source
Ft, Fp	- pebbly to cobbly with sandy infillings, with a thin capping of sand, silty sand or silt
F^{G}	- pebbly sand to sandy bouldery material
L^{G}	- clay rich silt with bouldery mixed fragment inclusions

BOUNDARY LINES AND ON-SITE SYMBOLS **

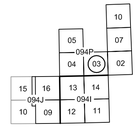
- Definite boundary
- Indefinite boundary
- Arbitrary boundary
- Area boundary
- h1-10 Detailed section site
- ● h1-35 Reconnaissance inspection site
- ▲ ph1-23 Visual check site
- Meltwater channel; small
- Metwater channel; large
- Scarp or terrace in surficial materials
- Landslide scar
- Landslide headwall scar
- Tension crack
- Blockfield
- Strand line
- Moralnal ridge
- Esker direction unknown
- Esker direction known
- Ice flow directional indicators
- Trend unknown
- Direction known

AGGREGATE POTENTIAL SYMBOLS

Aggregate Potential by Blyth Consulting	Aggregate Potential by Paul Savinkoff GIT
High	High
Moderate	Moderate
Low	Low

OTHER SYMBOLS

- Pit
- Quarry Potential
- Mollard's Prospect Area
- Road



Sierra / Yoyo / Desan Aggregate Potential Map

1:40,000 scale maps created from TRIM base employed for this project:
094I/ 11, 12, 13, 14 094J/ 09, 10, 15, 16
094P/ 02, 03, 04, 05, 07 ,10

November 2002

UTM Zone 10, NAD 83, Contour Interval: 20m

Mapped by: Heather Blyth, M.Sc., D.F.Eng., P.Geo. and Victor Levson, Ph.D., P.Geo. (British Columbia Ministry of Energy and Mines)

Field Checked: September 2002

Monorestitution by: Paul Savinkoff GIT
Air Photographs by: The Province of British Columbia, 1:40,000 1997 Monochrome

For: British Columbia Ministry of Energy and Mines

Any revision or additional geologic information would be welcomed by the authors
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