



LEGEND

NOTE: In areas where the surficial cover forms a complex pattern, the area is coloured according to the dominant unit and labelled in descending order of cover (e.g. O-T). Where buried aggregate deposits (sand and gravel - commonly associated with till or old surficial units) are known or suspected, areas are coloured according to the overlying unit and labelled in the following manner: LVI/G.

QUATERNARY SURFICIAL DEPOSITS

POST LAST GLACIATION

NONGLACIAL ENVIRONMENTS

- O** **ORGANIC DEPOSITS:** Fine peat, 1 to 3 m thick on average; peat derived from sedges and partially decayed shrubs in a eutrophic environment; the plant material is in various stages of decomposition; generally occurs as flat, wet terrain (swamps) over poorly drained substrates; forms relatively open peatlands.
- Ch** **Landslide and slump debris:** diamicton and rubble; poorly sorted, massive to stratified debris deposited by direct, gravity-induced movement; composition dependant on source material.
- Cv** **Colluvial veneer:** thin and discontinuous cover of slumped and/or soliflucted material <1 m thick; overlies bedrock or till.
- Ca** **Talus (scree):** accumulation of angular boulders below cliffs; generally 1 to 10 m thick or greater; usually forming fans or aprons.
- C** **Undifferentiated colluvial deposits:** undivided landslide debris, colluvial veneer and talus.

ALLUVIAL DEPOSITS: sorted gravel, sand, silt, and organic detritus deposited by streams; commonly stratified.

- Ap** **Floodplain deposits:** sorted gravel, sand, silt, and organic detritus >1 m thick; forming active floodplains close to river level with meander channels and scoll marks.
- At** **Fluvial terrace deposits:** >2 m thick; forming inactive terraces above modern floodplains; represent a potential aggregate source.
- Al** **Alluvial fan deposits:** poorly sorted gravel, sand, and diamicton >1 m thick; occur where a stream issues from a narrow valley onto a plain or valley floor.
- A** **Undifferentiated fluvial deposits:** undivided floodplain, fluvial terrace, and alluvial fan deposits.

LACUSTRINE DEPOSITS: sand, silt, and minor clay deposited in a former lake; >1 m thick; occasionally overlain by organic deposits; exposed by recent fluctuations in lake levels.

POSTGLACIAL OR LATE WISCONSINAN

PROGLACIAL AND GLACIAL ENVIRONMENTS

- Lb** **Glaciolacustrine blanket:** >1 m thick; obscures topography of underlying units.
- Lh** **Hummocky glaciolacustrine sediments:** >1 m thick; forming hummocky topography.

GLACIOFLUVIAL DEPOSITS: well to poorly stratified sand and gravel; minor diamicton; deposited behind, at, or in front of the ice margin by glacial meltwater; represent a potential aggregate source.

- Gp** **Proglacial outwash deposits:** generally 1 to 5 m thick; forming planar surfaces; generally mantle valley floors and surfaces adjacent to glacial meltwater channel margins.
- Gt** **Outwash terrace deposits:** 1 to 10 m thick; generally associated with meltwater channels and canyons; generally forming flat terraces perched above alluvial deposits.
- Gd** **Glaciofluvial delta deposits:** 1 to >30 m thick; deposited at the mouth of streams entering former glacial lakes.
- Gb** **Glaciofluvial blanket:** >1 m thick; obscures topography of underlying units.
- Gih** **Ice-contact stratified deposits:** poorly-sorted sand and gravel with minor diamictons; 1 to >20 m thick; deposited in contact with retreating glacier ice; forming hummocky topography related to melting of underlying ice.
- Gir** **Esker deposits:** moderately sorted sand and gravel, 1 to >20 m thick; forming ridges. Formed by meltwater flow within tunnels or channels in glacier ice.
- Gik** **Ice-contact stratified deposits with kettles:** same as Gih, but the surface is marked with kettles.

TILL: diamicton deposited directly by Cordilleran glaciers; sandy to clayey matrix with striated clasts of various lithologies.

- Tb** **Till blanket:** >1 m thick; continuous till cover forming undulating topography that locally obscures underlying units.
- Ts** **Streamlined and fluted till:** >1 m thick; till surface marked by streamlined landforms including flutings and drumlins.
- Th** **Hummocky till:** >1 m thick; hummocky to rolling till surface including discontinuous pockets of gravel.
- Tf** **Ridged till deposits:** >1 m thick; moraines or crevasse fillings forming a ridged topography.
- Tv** **Till veneer:** <1 m thick; discontinuous till cover; underlying bedrock topography is discernible.

PRE-QUATERNARY

- R** **Bedrock outcrop:** continuous bedrock outcrop; can include pockets of fill or colluvium rarely exceeding 2 m thickness.

Geological boundary (defined)
Slump, direction known
Landslide, small
Major landslide
Meltwater channel or underfit channel, small (paleoflow direction known, unknown)
Meltwater channel, large (paleoflow direction unknown)
Kettle large, small
Esker (direction known, unknown)
End moraine
Drumlin (ice flow direction known)
Crag-and-tail
Fluting
Striation (direction known, unknown)(coincides with some station sites)
Crossed striations (numbers indicate relative age, 1 being the oldest)
Bedrock lineation
Outcrop
Gravel pit
Field observation site (with and without samples)



Author: S.J. McCuaig
 Geology by S.J. McCuaig¹, 2008
 Geological compilation by S.J. McCuaig¹, 2008
 Digital cartography by M.J. Coulthart, Data Dissemination Division (DDD) and M. Harrison¹
¹Stantec, 4208, 97th Street, Suite 203, Edmonton, Alberta, T6E 5Z9
 This map was produced from processes that conform to the Scientific and Technical Publishing Services Subdivision (STPS) Quality Management System, registered to the ISO 9001:2000 standard

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SURFICIAL GEOLOGY
DEKA LAKE
BRITISH COLUMBIA
 Scale 1:50 000/Échelle 1/50 000
 kilometres 1 2 3 4 kilometres
 Universal Transverse Mercator Projection
 North American Datum 1983
 © Her Majesty the Queen in Right of Canada 2009
 Projection transverse universelle de Mercator
 Système de référence géodésique nord-américain, 1983
 © Sa Majesté la Reine du chef du Canada 2009

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada
 Digital base map provided by the BC Watershed Atlas (1:50 000, TRIM base)
 Shaded relief image prepared by DDD, derived from the digital elevation model supplied by L. Robertson, based on the TRIM topographic data
 Illumination: azimuth 315°, altitude 45°, vertical factor 5x
 Magnetic declination 2009, 17°59' E, decreasing 14.2" annually
 Elevations in metres above mean sea level

92 P14	92 P15	92 P16
OF6193	OF6179	OF6172
92 P11	92 P10	92 P9
	OF6173	OF6153
92 P8	92 P7	92 P6
OF6839	OF6839	

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