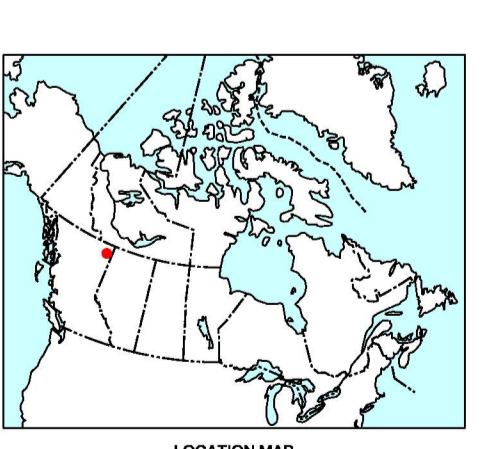


LEGEND

This legend is common to GSC OF4754, OF6070, OF5237, OF6305, OF6306, OF6307, OF6309, OF6557, and OF6560. Coloured legend blocks indicate units that appear on this map.

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. O¹-T). Where buried aggregate deposits (sand and gravel - commonly associated with O¹ or O² surficial units) are known, or suspected, areas are coloured according to the overlying unit and labelled in the following manner: LW/Gd.

- QUATERNARY SURFICIAL DEPOSITS**
- POST LAST GLACIATION**
- NONGLACIAL ENVIRONMENTS**
- AN** ANTHROPOGENIC DEPOSITS: culturally-made or modified geological materials such that their original physical properties (e.g. structure, cohesion, compaction) have been drastically altered; >2 m thick.
 - O¹** **ORGANIC DEPOSITS:** peat and muck; 1 to 3 m thick on average; formed by the accumulation of plant material in various stages of decomposition; generally occurs as flat, wet terrain (swamps and bogs) over poorly drained substrates.
 - O²** **Bog peat:** sphagnum or forest peat formed in an ombrotrophic environment; wet terrain; may be treeless; O¹, hummocky, mounds and plateaus; area may be underlain by ground ice or shallow permafrost conditions; O¹, thermokarst terrain related to melting ground ice.
 - O** **Fen peat:** peat derived from sedges and partially decayed shrubs in a eutrophic environment; forms relatively open peatlands with a mineral-rich water table that persists seasonally near the surface; generally covered with low shrubs and an occasional sparse layer of trees.
 - O^h** **Undifferentiated bog and fen deposits:** O^h, undifferentiated peat bog and fen deposits; area may be underlain by ground ice or shallow permafrost conditions; O^h, undifferentiated bog and fen deposits with thermokarst terrain related to melting of ground ice; O^h, undifferentiated bog and fen deposits cut by numerous subparallel channels on gentle slopes.
 - COLLUVIAL DEPOSITS:** mass wasting debris; poorly sorted, massive to stratified debris deposited by direct, gravity-induced movement; composition dependent on source material.
 - Ch** **Landslide and slump debris:** active and inactive landslides; hummocky topography; disclination, generally 1 to 10 m thick, but may exceed 10 m near the toe of large landslides.
 - Ov** **Colluvial veneer:** thin and discontinuous cover of slumped and/or soliflucted material <1 m thick; overlies bedrock or silt.
 - C** **Undifferentiated colluvial deposits.**
 - ALLUVIAL DEPOSITS:** sorted gravel, sand, minor 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:** inactive terraces above modern floodplain; >2 m thick; represents a potential aggregate source.
 - Ad** **Deltaic sediments:** stratified sand and gravel underlain by silt and clay; generally 2 to 15 m thick; occurring at the mouths of streams entering lakes.
 - Af** **Alluvial fan deposits:** poorly sorted gravel, sand, and organic detritus >1 m thick.
 - Av** **Alluvium veneer:** <1 m thick; primarily as uniform sheets of slope wash on gentle slopes.
 - A** **Undifferentiated fluvial deposits.**
 - L¹** **LACUSTRINE DEPOSITS:** sand, silt, and minor clay deposited in a former lake; >1 m thick; generally overlain by organic deposits; exposed by recent fluctuations in lake levels.
- NONGLACIAL AND PROGLACIAL ENVIRONMENTS**
- EOLIAN DEPOSITS:** wind-deposited medium to fine sand; derived from detritic or glaciolacustrine deposits; in some areas eolian sediments are thin or absent on dunes.
 - Er** **Ridged eolian deposits:** forming dunes; generally >2m thick.
 - Ev** **Eolian veneer:** discontinuous veneer of eolian sediments; <1 m thick.
- POSTGLACIAL OR LATE WISCONSINAN**
- PROGLACIAL AND GLACIAL ENVIRONMENTS**
- GLACIOLACUSTRINE DEPOSITS:** fine sand, silt, and clay, with minor debris-flow diamicton; deposited in glacier-chamfered lakes in valleys and along the margin of the retreating Laurentide Ice Sheet; usually overlain by organic deposits in lake levels.
 - Lb** **Glaciolacustrine blanket:** >1 m thick.
 - Lv** **Glaciolacustrine veneer:** thin and discontinuous; <1 m thick.
 - GLACIOFLUVIAL DEPOSITS:** well to poorly stratified sand and gravel; minor diamicton; deposited behind, at or in front of the ice margin by glacial meltwater; represents a potential aggregate source.
 - G** **Proglacial outwash:** cross-stratified gravel and sand deposited in front of the ice margin; O¹, outwash plain deposits, generally 1 to 5 m thick, generally mantles valley floors and surfaces adjacent to glacial meltwater channel margins; O¹, outwash terrace deposits, generally associated with meltwater channels and canyons; 1 to 10 m thick; O¹, glaciolacustrine delta deposits; 1 to >30 m thick; O¹, glaciolacustrine fan deposits; 1 to 10 m thick.
 - Gi** **Ice-contact stratified drift:** poorly-sorted sand and gravel with minor diamicton; deposited in contact with the retreating glacier; 1 to >20 m thick; O¹, hummocky topography relating to melting of underlying ice; O¹, surface marked by kettle holes; O¹, esker ridges; O¹, kame terraces; O¹, ice-contact glaciolacustrine delta deposits; 1 to >30 m thick, surface marked by kettles.
 - TILL:** diamicton deposited directly by the Laurentide Ice Sheet; sandy to clayey matrix with scattered clasts of various lithologies, including many Canadian Shield, carbonate and sandstone erratics; clast content is typically low (<10 %).
 - 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 flutes and drumlins.
 - Th** **Hummocky till:** >1 m thick; hummocky till surface.
 - Tr** **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 BEDROCK**
- R** **Sedimentary bedrock:** Cretaceous Fort St. John Group shales (including the Shaftesbury Formation) and Duncraig Formation sandstone exposed in highlands and along meltwater channel and canyon walls.



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 Geological compilation by I.R. Smith, 2003-2006
 Digital compilation by L. Robertson, GSC Northern Canada Division, 2008
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GSC OPEN FILE 5309
 BCMEMPR MAP 2006-4
SURFICIAL GEOLOGY
LICHEN CREEK
 BRITISH COLUMBIA

Scale 1:50 000/Échelle 1/50 000

Universal Transverse Mercator Projection
 North American Datum 1983
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Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Digital base map provided by I.R. Smith, modified by DDD

Shaded relief image prepared by DDD, derived from the digital elevation model supplied by I.R. Smith, based on 3" arc second SRTM imagery
 Illumination: azimuth 310°, altitude 25°, vertical factor 4.8x

Mean magnetic declination 2009, 21°7'E, decreasing 22.4" annually

94 01	94 P4	94 P5
94 J16	94 U13	94 U14
	OF6305	OF6309
95 J9	94 U12	94 U11
	OF6306	OF6307

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE INDEX TO ADDITIONAL GEOLOGICAL SURVEY OF CANADA MAPS

OPEN FILE DOSSIER PUBLIC 5309
 GEOLOGICAL SURVEY OF CANADA / COMMISSION GÉOLOGIQUE DU CANADA
 2009

Recommended citation:
 Smith, I.R.
 2009: Surficial geology, Lichen Creek, British Columbia; Geological Survey of Canada, Open File 5309; British Columbia Energy, Mines and Petroleum Resources, Map 2006-4, scale 1:50 000.