

This legend is common to maps 1786A to 1789A, coloured legend blocks indicate map units that appear on this map

QUATERNARY - HOLOCENE - POST MCCONNELL GLACIATION

- O** ORGANIC DEPOSITS: peat and musk several metres to tens of metres thick; formed predominantly by the accumulation of vegetative material in bogs and fens, depressions and valley bottoms. Permafrost is commonly present within 1 m of the surface in blanket bog; thermokarst collapse and pals growth are common in bogs and fens
- E** EOLIAN DEPOSITS: well sorted sand transported and deposited by wind action; greater than 1 m thick and generally forming parabolic and linear dunes
- COLLUVIAL DEPOSITS:** stony diamiction or rubble resulting from the breakdown of bedrock through physical and chemical weathering and the downslope movement of previously deposited surficial material; variably reworked and transported by gravitational processes such as creep, solifluction, debris flow, snow avalanching, and rockfall
- Cb** Colluvial blanket sediments: diamiction or rubble; greater than 1 m thick
- Cv** Colluvial veneer sediments: diamiction or rubble; less than 1 m thick and/or discontinuous
- Ca** Colluvial apron sediments: bouldery diamiction, poorly sorted sand and gravel forming a wedge-like slope-toe complex of flow and avalanche-dominated fans and solifluction deposits ranging from less than 1 m at the upslope limit to 10 m or more in the thickest part of the apron
- bCa** Rockfall deposits: bouldery, angular rockfall deposits that form aprons up to 10 m or more in maximum thickness along the bases of steep slopes
- ALLUVIAL DEPOSITS:** gravel to silt size sediments deposited by streams; deposits are commonly stratified and moderately to well sorted, except for some alluvial fan deposits
- Ap** Floodplain sediments: cobble to pebble gravel capped by sand and silt; greater than 1 m thick; includes lacustrine and organic deposits in abandoned channels and bog and fen areas; floodplain deposits subject to periodic inundation and reworking by floods
- At** Alluvial terrace sediments: cobble to pebble gravel capped by sand and silt; greater than 1 m thick; underlies one or more benches along the margins of active floodplains
- Af** Alluvial fan sediments: gravel, sand, silt, and diamiction up to 10 m or more thick; alluvial fans subject to stream avulsion and flooding and, on smaller and steeper fans, inundation by debris flows
- Au** Alluvial sediments, undivided: floodplains, fans, and terraces that cannot be subdivided at this map scale

WISCONSINAN - MCCONNELL GLACIATION

- GLACIOCLAUSTRINE DEPOSITS:** well stratified sand, silt, clay, and minor gravel and diamiction deposited in lakes ponded by glacial ice; sediments may have regular surfaces or have ridges, hummocky, or pitted surfaces caused by meltout of buried glacial ice. They commonly contain segregated ground ice and are affected by contemporary thermokarst collapse and retrogressive thaw flow slides along rivers
- Lp** Glacioclastrine plain: sand, silt, and clay with minor dropstones; 5 m or more thick
- Lb** Glacioclastrine blanket: silt and clay with minor sand; 1 to 5 m thick
- Lv** Glacioclastrine veneer: silt and clay; less than 1 m thick or discontinuous
- Lx** Glacioclastrine complex: sand, silt, and clay; hummocky, pitted, and ridged; comprises up to 10 per cent gravel and diamiction layers and lenses and dropstones; usually more than 5 m thick
- GLACIOFLUVIAL DEPOSITS:** sand, gravel, and minor silt, greater than 1 m thick, deposited by streams flowing from or in contact with glacial ice, including deltas graded to former glacial lake levels. Sorting ranges from good to poor and stratification from thin bedded to massive. Sediments commonly display evidence of syndepositional collapse due to meltout of buried or supporting ice
- Gp** Glaciofluvial plain and fan sediments: pebble to cobble gravel capped by sand and silt; greater than 1 m thick
- Gt** Glaciofluvial terrace sediments: pebble to cobble gravel capped by sand and silt; greater than 1 m thick
- Gd** Glaciofluvial delta: sand, gravel, and minor silt and clay; greater than 5 m thick
- Gx** Glaciofluvial complex: sand, gravel, diamiction, and minor silt and clay; greater than 5 m thick; forming hummocks, kettles, esker and crevasse-fill ridges; includes minor elements of Gp and Gt
- MORAINAL DEPOSITS:** glacial diamiction, mainly till, generally consisting of a silty sandy matrix containing pebbles, cobbles, and minor boulders; deposited either directly by glacial ice or by gravity flow from glacial ice
- Mb** Till blanket: greater than 1 m thick but conforming to the underlying topography
- Mv** Till veneer: less than 1 m thick or discontinuous; in places contains extensive areas of thin (less than 1 m) and patchy colluvium

MIDDLE PLEISTOCENE - RED GLACIATION

- GRd** GLACIOFLUVIAL SEDIMENTS: sand, gravel, and minor silt and clay; greater than 5 m thick; deposited as deltas by meltwater streams entering glacial and proglacial lakes
- MPv** MORAINAL DEPOSITS: glacial diamiction, mainly till, generally consisting of a silty sandy matrix containing pebbles, cobbles, and minor boulders; less than 1 m thick or discontinuous; in places contains extensive areas of thin (less than 1 m) and patchy colluvium
- EARLY PLEISTOCENE - PRE-RED GLACIATION**
- MPv** MORAINAL DEPOSITS: glacial diamiction, mainly till, generally consisting of a silty sandy matrix containing pebbles, cobbles, and minor boulders; many of the clasts are highly weathered; less than 1 m thick or discontinuous; in places contains extensive areas of thin (less than 1 m) and patchy colluvium

PALEOZOIC TO TERTIARY

- R** BEDROCK: includes areas of thin colluvial cover blockfields and sorted stone polygons in alpine areas
- R-A** Bedrock areas subject to rapid mass wasting processes (rockfall and snow avalanches)

- Geological boundary
- Streamlined glacial bedform (ice flow direction known)
- Moraine
- Glacial limits
- McConnell (defined, approximate, assumed)
- Reid (defined, approximate, assumed)
- Reid coincident with moraine
- Esker (flow direction defined, undefined)
- Subglacial and proglacial meltwater channel
- McConnell (large, small, single wall of large channel)
- arrow indicates flow direction
- Reid (large, small) arrow indicates flow direction
- Pre-Reid (small) arrow indicates flow direction
- Terrace (marking stages of formation)
- Discontinuous organic deposits generally less than 1 m thick
- Landslide (arrow indicates direction of movement)
- Open system pingo
- Tor
- Thermokarst collapse activity
- Location of stratigraphic section

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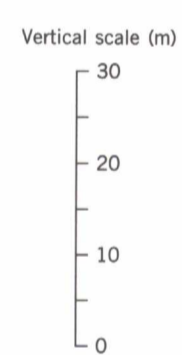
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Recommended citation:
Ward, B.C., and Jackson, L.E., Jr.
1993. Surficial geology, Afe Creek, Yukon Territory; Geological Survey of Canada, Map 1788A, scale 1:100 000

STRATIGRAPHIC SECTIONS

- 1**
Sand and silt; partially covered, rippled sand at base, interstratified sand and silt at top
covered
- 2**
Gravel; cobbles to pebbles
Sand and silt; sand predominant in ripple and planar graded bedding; some slumping and diapirs present
covered 10 m to river
- 3**
Sand and silt; well stratified, rippled and laminated; dropstones abundant in lower half
river
- 4**
Gravel; pebbles to cobbles
Sand and silt; partially covered, well stratified
river
- 5**
Gravel; cobbles to pebbles
Sand; well stratified; medium and very fine sand
road
- 6**
Gravel; cobbles to pebbles
Diamiction; stratified clasts, massive
Gravel; poorly sorted
road



LEGEND

- Glacioclastrine sediments
- Glaciofluvial sediments
- Till

Geology by B.C. Ward and L.E. Jackson Jr., 1987-1989

Geological cartography by Y.F. St. Pierre Savard, Geological Survey of Canada

Colour separations were produced using digital methods

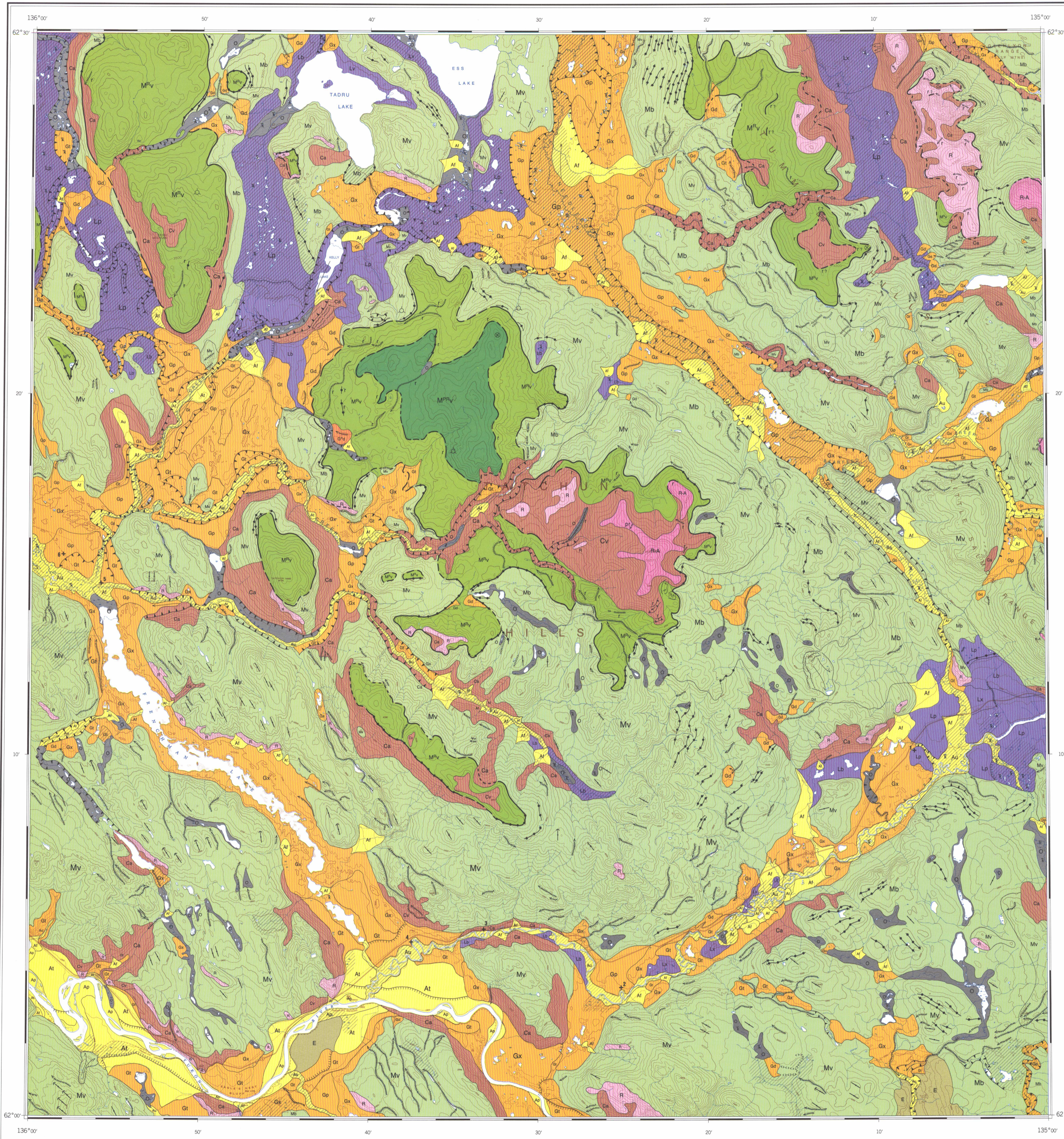
Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Base map assembled by the Geological Survey of Canada from maps 105 L3, 4 (1979), 105 L5, 6 (1973), published at 1:50 000 scale by the Surveys and Mapping Branch

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

Mean magnetic declination 1993, 29°31' E, decreasing 11.3' annually. Readings vary from 29°13' E in the SW corner to 29°42' E in the NE corner of the map

Elevations in feet above mean sea level



Copies of this map may be obtained from the Geological Survey of Canada, 801 Booth Street, Ottawa, Ontario K1A 0E8, 3903-39th Street, N.W., Calgary, Alberta T2C 2A7, 100 West Pender Street, Vancouver, B.C. V6B 1R8

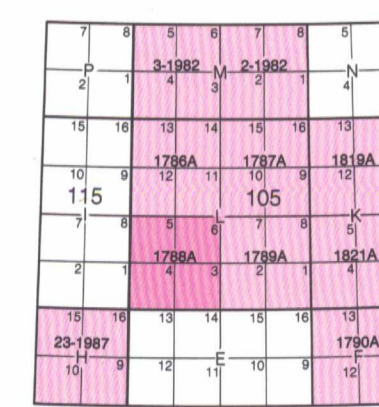


MAP 1788A
SURFICIAL GEOLOGY
AFE CREEK
YUKON TERRITORY

Scale 1:100 000 - Échelle 1/100 000

Kilometres / Kilomètres

Universal Transverse Mercator Projection / Projection transverse universelle de Mercator



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJACENT GEOLOGICAL SURVEYS OF CANADA MAPS