



LEGEND

This legend is common to maps 1674A, 1675A, 1676A, 1677A. Coloured legend blocks indicate map units that appear on this map.

SURFICIAL DEPOSITS

QUATERNARY

NEOGLACIATION

ICE AND SNOW

Tn Till: nonsorted debris, commonly bouldery, 0.5-20 m thick, forming discontinuous veneers, fluted, hummocky, or channelled blankets, and lateral and end moraine ridges; distinguished from older till by its general lack of vegetation; includes deposits of six advances, oldest of which postdates White River tephra (ca. 1200 years old)

NONGLACIAL ENVIRONMENT

Ca Colluvial deposits: block accumulations and landslide debris, 1-50 m thick. Talus (scree): accumulations of blocks, commonly exceeding 3 m in diameter, as much as 50 m thick, forming aprons and fans below cliffs; commonly crossed by debris flow channels and levees. Most slopes active

Cr Rock glacier debris: accumulations of talus deformed by flow of interstitial ice to form rock (talus) glaciers, generally 10-50 m thick, with pronounced transverse and longitudinal ridges and furrows, steep sides and fronts; includes deposits of several ages, at least three older and six younger than White River tephra (ca. 1200 years old)

Ch Landslide debris: rock avalanches more than 10 m thick and slumped and slid till incorporating organic detritus, 1-10 m thick, with hummocky or rolling surfaces and steep fronts

ALLUVIAL DEPOSITS: gravel, sand, and organic detritus 2-20 m thick

Af Alluvial fan deposits: poorly sorted gravel and sand with organic detritus and buried organic soils; fans commonly laterally amalgamated, commonly crossed by debris flow channels and levees and subject to shifting stream courses

Ap, I Alluvial plain and terrace deposits: well sorted gravel and sand with detrital organic beds, including concentrations of logs, forming meander scoured plains Ap, and terraces At

Er Eolian deposits: sand, 1-5 m thick, forming sharp crested dunes, now stable; probably formed immediately after deglaciation and prior to establishment of a vegetation cover

POST-LAST GLACIATION

PROGLACIAL AND GLACIAL ENVIRONMENT

Lt, p GLACIOCLASTIC DEPOSITS: fine sand, silt, and clay, 10-30 m thick, forming terraces deeply dissected by postglacial erosion where thick or plains where thin; deposited in glacier dammed lakes

GLACIOFLUVIAL DEPOSITS: gravel and sand, 2-30 m thick, deposited on, beneath, and in front of the marginal zone of a glacier

Gt, p, I, Gpk, Gpk Proglacial outwash: gravel and sand forming distal outwash terraces Gt, plains Gp, and fans Gf, and proximal kettled outwash terraces Gt, and plains Gpk; characterized by abandoned bracketed channel patterns

It, k, h, r Ice contact stratified drift: gravel and sand, with clasts commonly 10-100 cm across, commonly faulted, forming lateral kame terraces It, and delta terraces Ik, with ice contact escarpments and kettle holes Ik, hummocky moulins kame fields, or ice block disintegration terran Ih, and eskers or crevasse fillings Ir

GLACIAL ENVIRONMENT

Tv Till veneer: 0.5-2 m thick; surface mimics underlying rock surface, fluted in places, commonly channelled by meltwater

Tb, Tbh Till blanket: 2-20 m thick; much of surface lined by flutings and drumlins or channelled by meltwater Tb, distinctly hummocky Tbh, where composed mostly or entirely of shale

ROCK PRE-QUATERNARY

R1, R2 ROCK: rock of various lithologies and ages forming alpine valley walls and ridges extensively modified by glacial erosion R1, and high plateau remnants of restricted extent showing little or no sign of glacial erosion R2; high plateaus and other low to moderate slopes commonly mantled by felsenmeer; patches of till and glacial erratics occur throughout

Geological boundary (defined, gradational)
 Cirque, cirques and arêtes; alpine escarpment formed by glacial oversteepening of bedrock
 Drumlins (ice flow direction known, unknown)
 Crag and tail (till tail)
 Roche moutonnée or rock drumlin
 End moraine
 Lateral moraine, ornamented on glacier side
 Medial moraine
 Ice contact face in stratified drift
 Esker (direction of flow known)
 Crevasse filling
 Kame
 Subglacial and proglacial meltwater channel (wide, narrow)
 Sidehill (lateral) meltwater channel; barb on upslope side
 Escarpment in unconsolidated sediment
 Landslide scar (large, small)
 Avalanche track, avalanche slope
 Ground observation point
 Site where permafrost encountered
 Till sample with anomalously high levels of Zn, Pb, etc. 58 Zn, Pb

MINERALS

Arsenic	As	Molybdenum	Mo
Chromium	Cr	Nickel	Ni
Copper	Cu	Silver	Ag
Manganese	Mn	Uranium	U
Mercury	Hg	Zinc	Zn

Geology by A.S. Dyke 1981, 1983

Geological cartography by P. St-Amour, Geological Survey of Canada

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 monochrome maps published at 1:50 000 scale by the Surveys and Mapping Branch in 1985

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 0G9

Mean magnetic declination 1990, 30°00' East, decreasing 14.3' annually. Readings vary from 29°45'E in the SW corner to 30°16'E in the NE corner of the map area

Elevations in metres above mean sea level



MAP 1675A
SURFICIAL MATERIALS AND LANDFORMS
FRANCES RIVER
 YUKON TERRITORY

Scale 1:100 000 - Échelle 1/100 000

Kilometres 0 2 4 6 8 Kilometres

Universal Transverse Mercator Projection / Projection transverse universelle de Mercator
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106 GNE	105 HNW	105 HNE	95 ENW
1676A	1675A	1677A	95 ESW
105 BNE	105 ANW	105 ANE	95 DNW

Recommended citation: Dyke, A.S. 1990. Surficial materials and landforms, Frances River, Yukon Territory, Geological Survey of Canada, Map 1675A, scale 1:100 000

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