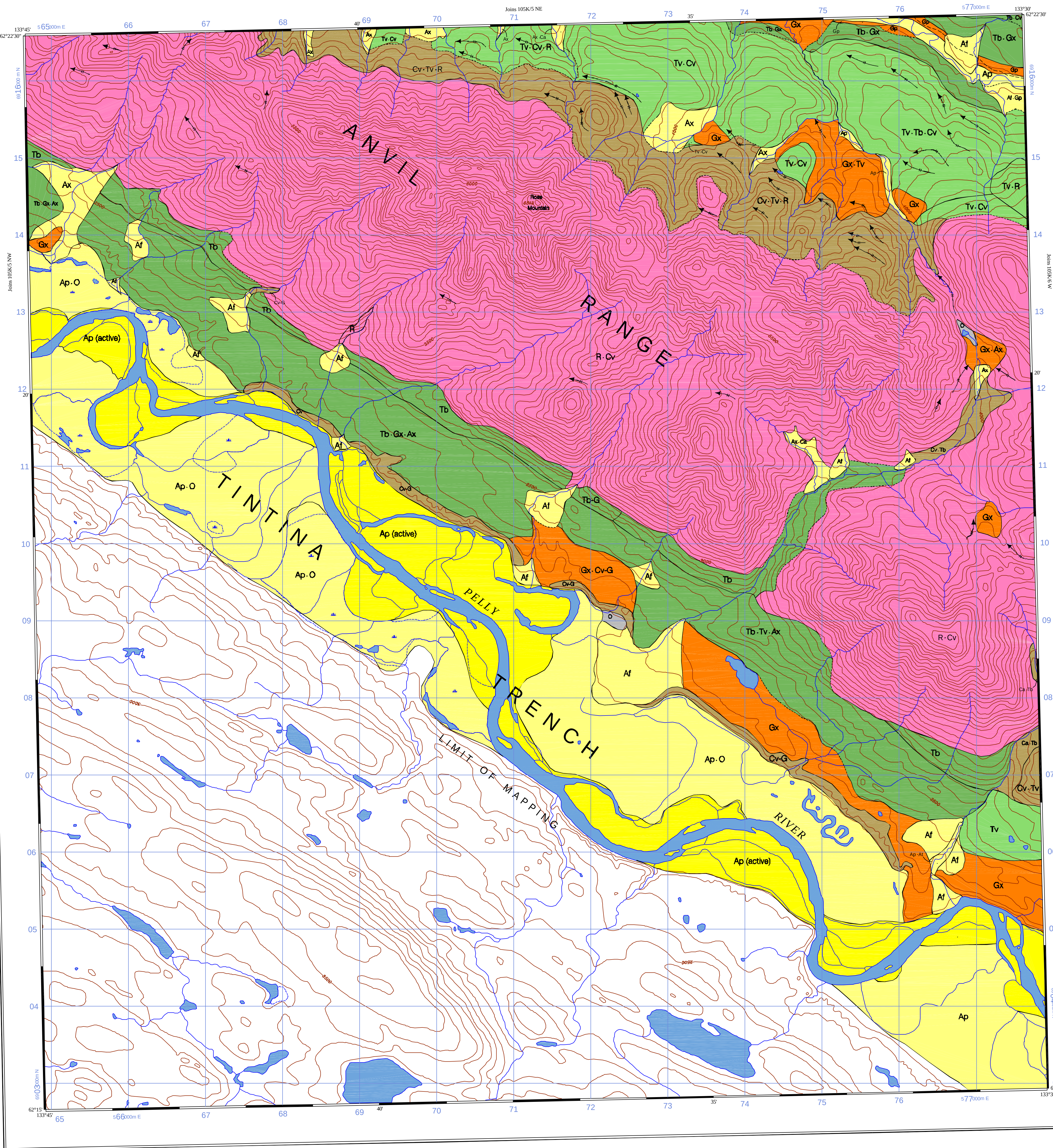




LEGEND

QUATERNARY
HOLOCENE

ORGANIC DEPOSITS : peat and woody material; occurring as a flat to gently sloping plain; overlie lacustrine, till, or poorly drained glaciofluvial and alluvial deposits but rarely form a dominant geologic unit. Permafrost is commonly present within 1 m of the surface. Localized palisa development occurs in more poorly drained organic deposits.

ALLUVIAL DEPOSITS : sand, silt and pebbles with minor cobbles deposited in modern drainages. Common in all drainages in the map area and may intermix with alluvial fan sediments in areas of higher relief.

Ap - alluvial plain : silt, sand and pebbles with reworked cobbles and boulders occurring as bars or overbank floodplain deposits, 0 - 10 m thick; floodplain subject to periodic floods. Small valley alluvial plains may not be mapped at this scale.
Ap (active) - alluvial plain : area of Pelly River floodplain that has been recently active.
Af - alluvial terrace : silt, sand and pebbles with reworked cobbles and boulders occurring as low terrace deposits, 0 - 10 m thick.
Af - alluvial fan : coarse sand, pebbles, cobbles and mudflow deposits, up to or > 10 m thick. Appear as vegetated, often peat covered, landforms developed during post-glacial sedimentation.
Ax - complexes of Ap and Af undivided. Common when a stream is unconfined and also in narrow valleys where side-entry alluvial fans cannot be differentiated from an alluvial plain.

PLEISTOCENE AND HOLOCENE (UNDIVIDED)

COLLUVIAL DEPOSITS : diamicton, gravel, shattered bedrock, and lenses of sand and silt derived from bedrock and surficial sediments by physical and chemical weathering processes. Transport of dislodged debris occurs as surface creep or by mass wasting processes. Permafrost and seasonal freeze-thaw processes often initiate and enhance colluviation. Common on slopes and plateau summits.

Cv - colluvium veneer : conforms to bedrock topography, <1 m thick.
Ca - colluvium apron : coalescing colluvial fans at the base of a slope, >1 m thick.

LATE PLEISTOCENE (WISCONSINAN) - McCONNELL GLACIATION

GLACIOFLUVIAL DEPOSITS : stratified to massive; poorly to well sorted; gravel and sand with minor silt and cobbles; deposited by meltwater originating from glacial ice. Common in Anvil Creek valley and Tintina Trench.

Gp - glaciofluvial plain : 3-10 m thick.
Gx - glaciofluvial complex : composed of deposits of outwash, glaciolacustrine and minor till deposited in an ice contact environment. Hummocky topography is associated with this depositional setting, 1 - 40 m thick.

GLACIAL DEPOSITS (B) : unsorted clay, silt, sand, pebbles and cobbles with minor boulders; deposited by or from glacial ice and occurs as subbed veneer and blanket deposits. Till is common as a veneer over much of the map area and grades into blanket deposits on more gentle slopes and valley bottoms.

Tv - till veneer : conforms to underlying topography, <1 m thick.

Tb - till blanket : gently to moderately sloping plain controlled by bedrock or underlying surficial deposits, >1 m thick.

LOWER CAMBRIAN TO CRETACEOUS

BEDROCK : The map area is underlain by rocks of North American affinity and Yukon-Tanana Terrane. North American rocks underlie the northeast part of the map area and consist of the Lower Cambrian Mt. Mye formation, the Cambrian to Lower Ordovician Vangora formation, the Lower Ordovician to Silurian Menzies Creek formation, and post-Mississippian Anvil Range Group basalts. Rocks adjacent to Tintina Fault consist of Permian and older rocks of Yukon-Tanana Terrane (Jennings and Jilson, 1986).

R - bedrock : common on plateau summits and ridges of the Anvil Range.

COMBINED MAP UNITS

The surficial geology units are shown first followed by the terrain modifiers. Combined surficial geology units are used where, for reasons of scale, two or more distinct units cannot be identified individually. The dominant unit (>50 % of polygon coverage) is shown first and the subordinate units (<50 % of polygon coverage) are shown second and third. A dot separates the surficial units and a dash separates the terrain modifier from the surficial geology.

TERRAIN MODIFIERS

SUB-ARCTIC, ALPINE AND PERIGLACIAL PROCESSES

S - solifluction

E - erosion processes

G - gullying : areas of rapid erosion

SYMBOLS

Geological boundary (defined, assumed)

Glacial meltwater channel

REFERENCES

JENNINGS, D.S. and JILSON, G.A., 1986. Geology and sulphide deposits of Anvil Range, Yukon. In: Mineral Deposits of Northern Cordillera, Proceedings of the Mineral Deposits of Northern Cordillera Symposium, J.A. Morin (ed.), Canadian Institute of Mining and Metallurgy, Special Volume 37, p. 319-361.

RECOMMENDED CITATION

BOND, J.D., 1999. Surficial geology map of Rose Mountain (105K/5 SE), central Yukon (1:25,000 scale). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada. Open File 1999-17.

Digital cartography and drafting by P.S. Lipovsky, Yukon Geology Program.

Any revisions or additional geological information known to the user would be welcomed by the Yukon Geology Program.

Copies of this map may be purchased from Geoscience Information and Sales, c/o the Whitehorse Mining Recorder, Indian and Northern Affairs Canada, Room 102-300 Main St., Whitehorse, Yukon, Y1A 2B5, PH 867-667-3266, FAX 867-667-3267.

Keep this map stored in a dark area to prevent map colours from fading.

This map was released January 2000.

Indian and Northern Affairs Canada
Exploration and Geological Services Division
Yukon Region

Open File 1999-17

SURFICIAL GEOLOGY MAP OF ROSE MOUNTAIN
(105K/5 SE), CENTRAL YUKON

by

J.D. Bond
Yukon Geology Program
Geoscience Office

SURFICIAL GEOLOGY OF ROSE MOUNTAIN
(105K/5 SE), CENTRAL YUKON
SCALE 1:25 000

CONTOUR INTERVAL 100 FEET
Elevations in feet above mean sea level
North American Datum 1983
Transverse Mercator Projection

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APPROXIMATE MEAN SEASONAL 1970
FOR CENTRE OF 105K/5 MAP
Annual Change Increasing 4.0

