

Surficial Geology
NADALEEN RIVER
Yukon Territory - Northwest Territories

LEGEND

- PLEISTOCENE AND RECENT**
- 1 GLACIAL DEPOSITS: till, minor sand and gravel - undifferentiated.
 1a terminal and recessional moraine - till, minor gravel, sand, silt and segregated ice - see also chronology symbols.
 1b ground, hummocky and drumlinoid moraine - till, minor sand, gravel, silt and segregated ice - see also symbols below.
 1c lateral and medial moraine - till, gravel, rock debris, minor sand, silt and segregated ice - see also symbols below.
- 2 GLACIO-FLUVIAL, FLUVIO-GLACIAL AND GLACIO-LACUSTRINE DEPOSITS: gravel, sand, clay and minor till and segregated ice - undifferentiated.
 2a non-pitted terraces, outwash or valley train, fill sheets and deltas - sand, gravel - see also symbols below.
 2b pitted terraces, outwash, deltas, kames and hummock terraces - sand, gravel and minor till - see also symbols below.
 2c dead ice deposits, ablation hummocks, crevasse fillings, eskers and related features - sand, gravel, silt and minor till - see also symbols below.
 2d lacustrine deposits - associated with deglaciation, may or may not be pitted (by thermokarst or melting out of residual ice blocks) - silt, clay, minor sand and gravel, segregated ice - see also symbols below.
- 3 FLUVIAL AND MASS WASTING DEPOSITS: silt, sand, gravel, rock debris, organic debris and segregated ice - undifferentiated.
 3a modern terraces - gravel, sand and silt.
 3b modern flood plains - silt, sand, gravel with or without extensive winter veneer of "aufeis".
 3c alluvial fans - silt, sand, gravel and rock debris.
 3d paludal and modern lacustrine deposits - silt, sand, and organic matter.
 3e talus slopes - rock debris - see also symbols below.
- 4 COLLUVIAL DEPOSITS - silt - as a veneer lying on any of the above units; expressed as a fractional unit - 4/10, etc.
- 5 PERIGLACIAL DEPOSITS AND FEATURES: ice, silt, sand, gravel, rock debris and organic matter - undifferentiated (usually occurs as extensive solifluction sheets or fans).
 5a patterned ground (ice wedge) - incomplete mapping; detailed photo-grammetric and field work determination is required.
 5b pingo-like feature - origin not certain.
 5c thermokarst escarpments and depressions - silt and segregated or ground ice - incomplete mapping; detailed field observations are necessary.
 5d lobed solifluction deposits - silt, organic matter and rock debris - symbol refers to a field of many lobed features; subbed varieties are omitted.
 5e rock glaciers - undifferentiated or activity status unknown - see also symbols below.

- RECENT AND OLDER**
- 6 MIXED SURFICIAL DEPOSITS, COLLUVIUM, in extensive areas of less than 25% bedrock exposure - may include minor units of any of the above and organic cover may be extensive.

- Geological boundary (approximate, gradational or sub-unit boundary).
- Rock glaciers - mode of origin and activity status are obscure.
 Rock glaciers - of interstitial ice derived in a secondary or subsequent process (rock debris > 75%, interstitial ice < 25%) active at present unless noted as dormant (D); shapes (tongue, spatulate, lobate).
- Glacieret or icefield (debris free, debris covered including rock glaciers of massive and primary glacial ice origin, with ice covered moraine); debris covered varieties are of massive ice < 75% and rock debris > 75%; assumed to be active unless denoted by a moraine or deposits of Units 1 or 2.
- Lateral and medial moraines (locally including minor hummock terraces)
- Glacial striae, fluting, plant grooves, creg and tail or stoss and lee (ice direction inferred, not inferred from the features).
- Drumlin (ice direction inferred, not inferred)
- Hummocky, ridged or filled ground moraine.
- Pits or kettle holes - derived by melting out of buried glacial ice blocks.
- Deltas
- Erratics - from published sources - locations are approximate.
- Eskers or eskaroid complexes (direction of flow known, unknown).
- Glacial lake strand lines (L)
- Meltwater channels - arrows show direction of flow (minor and usually lateral, major).
- Erosional scarp - developed by lateral planation.
- Gorge or deeply entrenched channel of modern stream - developed by vertical denudation.
- Major talus cones.
- Landslides - toothed portion indicates source area, arrows indicate path of debris fallline (known), SD - surficial deposits in the debris zone).
- GLACIAL CHRONOLOGY INDICATORS**
- Castellated outcrop or valley-sided tors (Late Wisconsinan, pre-Late Wisconsinan).
- Direction of ice flow - Neoglacial or Early Post Glacial
 - Late Wisconsinan
 - pre-Late Wisconsinan
- Cirques - containing active ice during Late Wisconsinan
 - containing active ice only during older glaciation
- End or terminal moraines - known, inferred
 - Recent and Neoglacial (R) and Early Post Glacial (not denoted)
 - Late Wisconsinan
 - pre-Late Wisconsinan
- Upper limit of glaciation - Inferred from "Schiffgraben", faceted spurs and lateral moraine features
 - Recent and Neoglacial, Early Post Glacial or age uncertain
 - Late Wisconsinan
 - pre-Late Wisconsinan

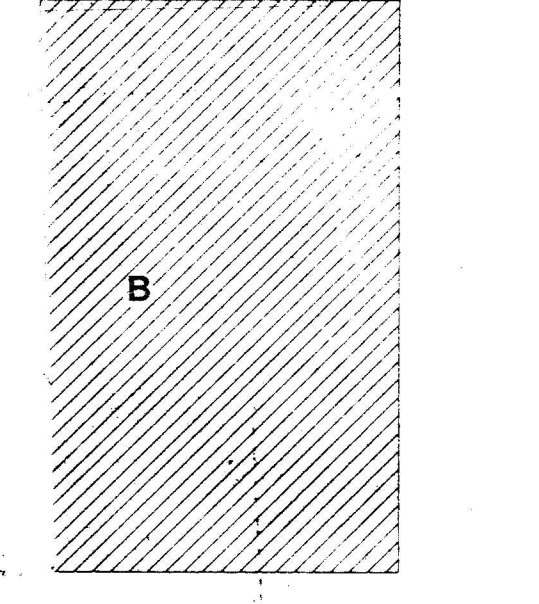
Geology from aerial photo interpretation, by K. E. Ricker, 1973
Geological Survey of Canada, Open File Report 1974

OPEN FILE
207
JUN 1974
GEOLOGICAL SURVEY
CANADA

GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

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RAM-CROQUIS D'ÉTAT



Photogrammetric map, 1968.

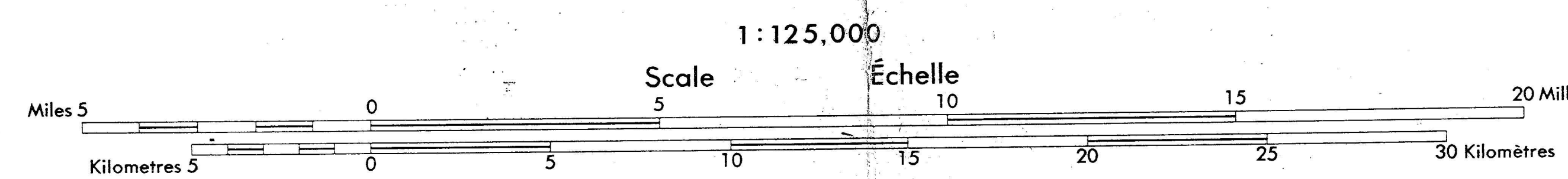
Produced 1971 by the SURVEYS AND MAPPING BRANCH
DEPARTMENT OF ENERGY, MINES AND RESOURCES.
Printed 1972.

Magnetic declination 1972 varies from 34°58' easterly at centre of west edge to 35°32' easterly at centre of east edge. Mean annual change 5.0' westerly.

Roads:
cartrack
trail or portage

FOR COMPLETE REFERENCE SEE REVERSE SIDE

NADALEEN RIVER
YUKON TERRITORY-NORTHWEST TERRITORIES



CONTOUR INTERVAL 500 FEET
Elevations in feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

ÉCHARTONNEMENT DES COURBES 500 PIEDS
Élévations en pieds au-dessus du niveau moyen de la mer
Système de référence géodésique nord-américain, 1927
Projection transverse de Mercator

Établi en 1971 par la DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE,
MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. Im-
primé en 1972.

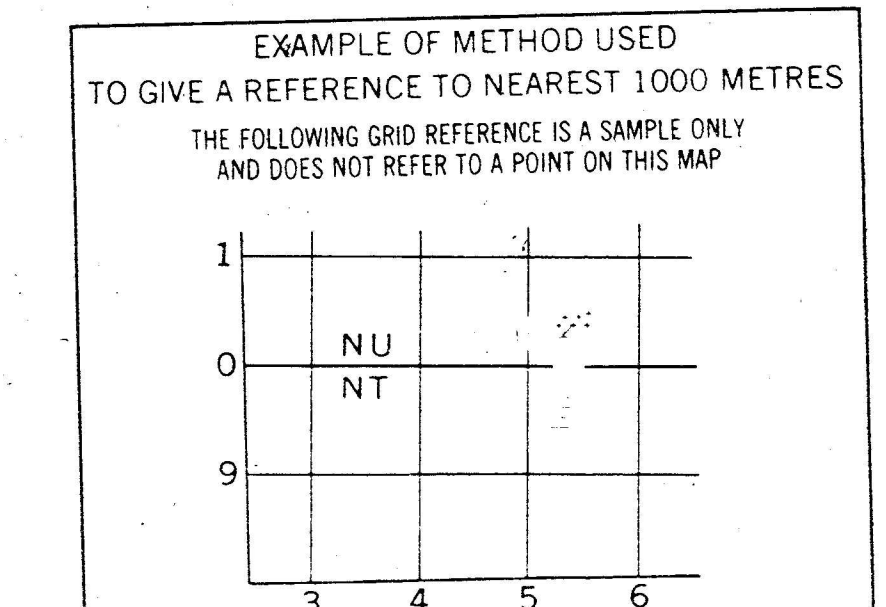
La déclinaison magnétique pour 1972 varie de 34°58' Est au centre de la limite Ouest à 35°32' Est au centre de la limite Est. Variation moyenne annuelle 5.0' Ouest.

Routes:
car terre
sentier ou portage

POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO

TEN-THOUSAND METRE
UNIVERSAL TRANSVERSE MERCATOR GRID
ZONE 8

GRID ZONE DESIGNATION	100,000 M. SQUARE IDENTIFICATION
72	NH PH
	NG PG
BW	NI PQ
	NF PF



REFERENCE POINT ROCKS - (as above)

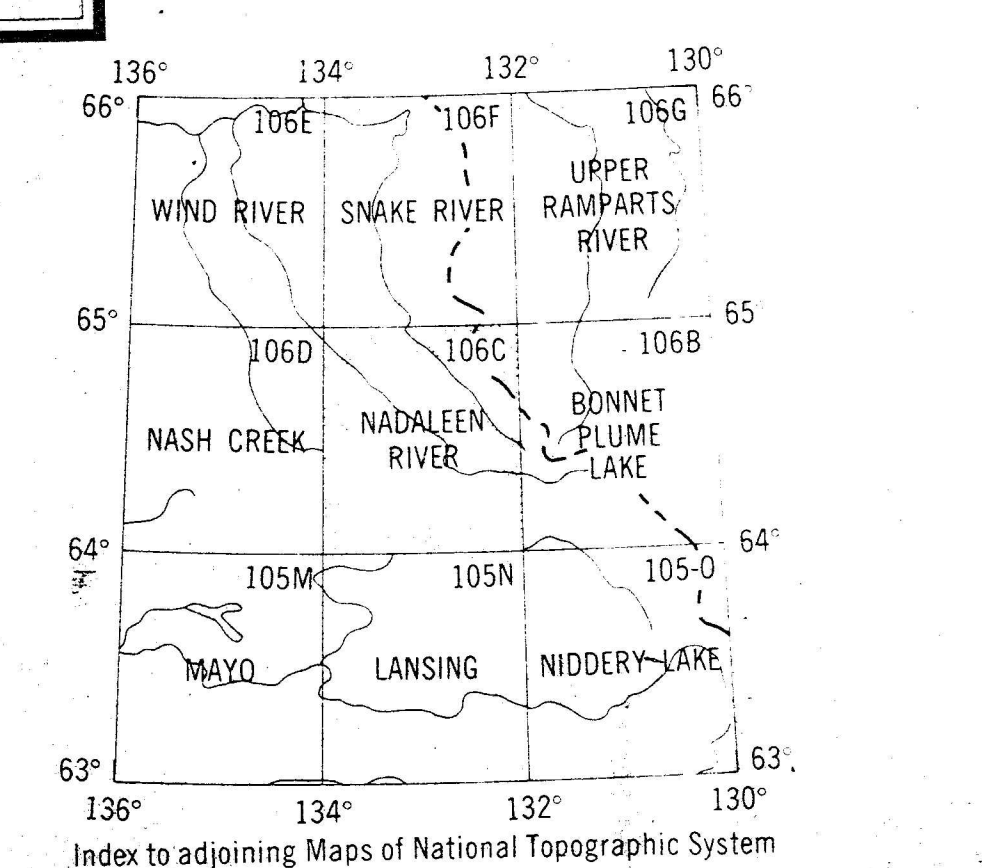
SQUARE: Read letters of 100,000 m square NU

EASTING: Read number on grid line immediately to left of point
 Estimate tenths of a square from this line eastward to point.

NORTHING: Read number on grid line immediately below point
 Estimate tenths of a square from this line northward to point.

EXAMPLE MILITARY GRID REFERENCE NU5404

If reporting beyond 10' in any direction, prefix Grid Zone designation as: 15VNU5404



Index to adjoining Maps of National Topographic System
Tableau d'assemblage du Système national de géographie cartographique