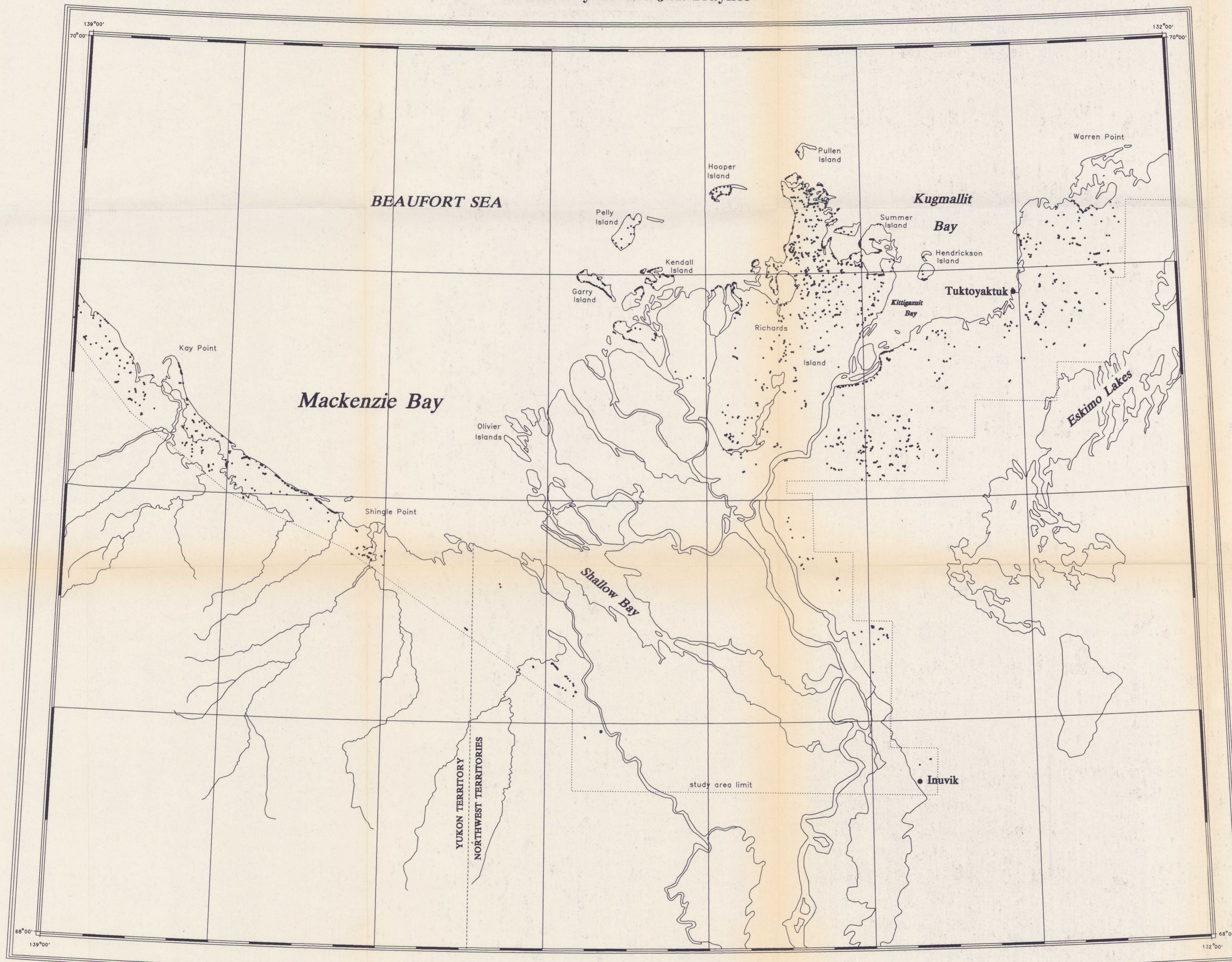


# Landslides in the Lower Mackenzie Valley and Yukon Coast Region

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### NOTES

The sites and distribution of landslides occurring within the Mackenzie Delta and Yukon coast areas are represented by dots on the base map. Each dot represents one row of information in the digital database which accompanies this map. However, the density of landslides in some locations requires the designation of multiple or complex slides in the database; in these instances, one dot represents more than a single landslide. A key describing database columns (the information collected for each slide) is also provided as a digital file with the database.

This map and database are part of a larger project to study landslides in the entire Mackenzie River valley. Maps with the distribution of landslides in the central (Duk-Rodkin, 1993) and upper (Aylsworth, 1992) Mackenzie Valley are also available as open files from the Geological Survey of Canada. The databases prepared for all parts of the valley are designed to contain identical categories of information for wider regional analyses and comparison.

With few exceptions, aerial photographs from 1985 were utilised to locate and describe slides in the upper Mackenzie Delta, Yukon coast, and western Tuktoyaktuk Peninsula. Landslides which have occurred after this date are not included in the database.

The slides identified were exclusively retrogressive thaw flow slides, also known as retrogressive thaw slumps, ground ice slumps, thaw slumps, and multiple retrogressive slides (Harris, et al., 1988). These occur in regions of high ice content soil, particularly where the active layer is thickening and slopes are over steepened. In this region, over steepened slopes develop around expanding thermokarst lakes and along the Beaufort Sea coast. Along coastal bluffs, failed material is often rapidly removed from the toe of the slide through wave erosion, which promotes continued mass movement and coastal retreat.

### References:

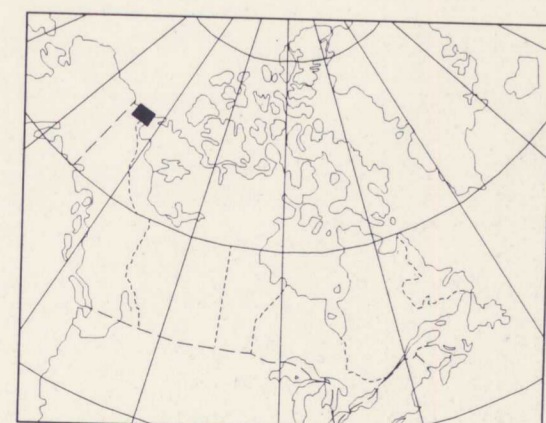
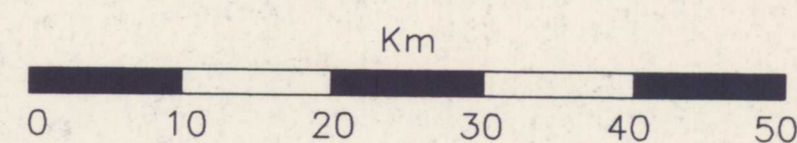
Aylsworth, J.M.  
1992: Landslides, distribution and classification, 60° to 64°N, Mackenzie Valley, N.W.T.. Geological Survey of Canada, Open File 2554, 1:1 000 000.

Duk-Rodkin, A.  
1993: Landslides, distribution and classification, central Mackenzie Valley and adjacent mountainous regions, 64° to 68°N, N.W.T.. Geological Survey of Canada, Open File 2611, 1:1 000 000.

Harris, S.A., French, H.M., Heginbottom, J.A., Johnston, G.H., Ladanyi, B., Sego, D.C., and van Everdingen, R.O.  
1988: Glossary of Permafrost and Related Ground-Ice Terms. National Research Council of Canada, Technical Memorandum 142, 156 p.

Lambert conic conformal projection

Scale 1:500000



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GEOLOGICAL SURVEY OF CANADA  
COMMISSION GEOLOGIQUE DU CANADA  
OTTAWA  
1994

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