NOTES

The surficial geology of the Thinahtea Lake (NTS 94 P/9) map area is dominated by the effects of continental glaciation during the Late Wisconsinan (ca. 25 000–10 000 years ago). In general the ice sheet advanced from the northeast, but the ice thinned during deglaciation and divided into distinct lobes. The map area became dominated by one lobe flowing southward from the Mackenzie River valley in the north, and a second lobe in the south, occupying the Shekilie River. Glacial flutings in the northern part of the map area record the southern flow of the northern lobe. Thinahtea Lake itself occupies a large meltwater channel that was probably the mouth of a large subglacial tunnel emanating from the northern ice lobe. Numerous eskers lie along the northern edge of the lake. Initially the northern and southern lobes were in contact along an area of hummocky moraine, just south of the Petitot River, but once they separated meltwater collected between the lobes along the lowland occupied by the modern Petitot River with drainage to the west. The western part of the Petitot River valley, however, was initially occupied by the northern ice lobe and the main drainage was forced southward along the northern margin of the Etsho Plateau. The Petitot River did not occupy its present course until the northern ice lobe retreated northward. Much of the map area is underlain by thick clayey till and glaciolacustrine deposits, which are poorly drained and covered by extensive muskeg. Areas of thick peat are likely underlain by permafrost and probably contain significant amounts of ground ice.