



# Digital data release for a multimedia geochemical survey in the McLeod Lake map area (NTS 093J/5, 6,12) central British Columbia

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**Front cover:** Sampling glacial sediment south of Great Beaver Lake, McLeod Lake (NTS 93J) map sheet.

Appendices for this paper can be downloaded from

<http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/GeoFiles/Pages/GF2018-7.aspx>



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R.E. Lett<sup>1a</sup>

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**Keywords:** McLeod Lake, geochemical survey, till, stream sediment, stream water.

## Summary

In 2006, a geochemical orientation survey in the McLeod Lake area (NTS 093J/5, 6, 12), in central British Columbia (Fig. 1) collected till at 16 sites, stream sediment at 6 sites, and stream water at 3 sites (Fig. 2). The till and sediment samples were analyzed for 40 elements by a combination of HCl-HNO<sub>3</sub>-H<sub>2</sub>O dissolution-inductively coupled mass spectrometry (ICP-MS) and instrumental neutron activation (INAA), and for loss on ignition (LOI). Filtered (0.45 µm) acidified (1 M HNO<sub>3</sub>) water sample were analyzed for 60 elements by inductively coupled mass spectrometry (ICP-MS) and inductively coupled emission spectrometry (ICP-ES). The water samples were also analyzed in the field for pH and conductivity. Although results and an interpretation of the analyses were reported by Lett and Bluemel (2006), the digital data were not released. Herein we provide these data (Appendices 1 and 2).

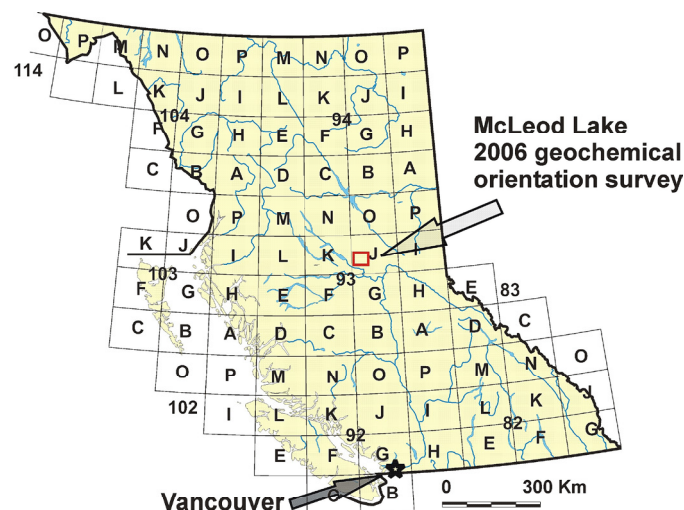


Fig. 1. Survey location.

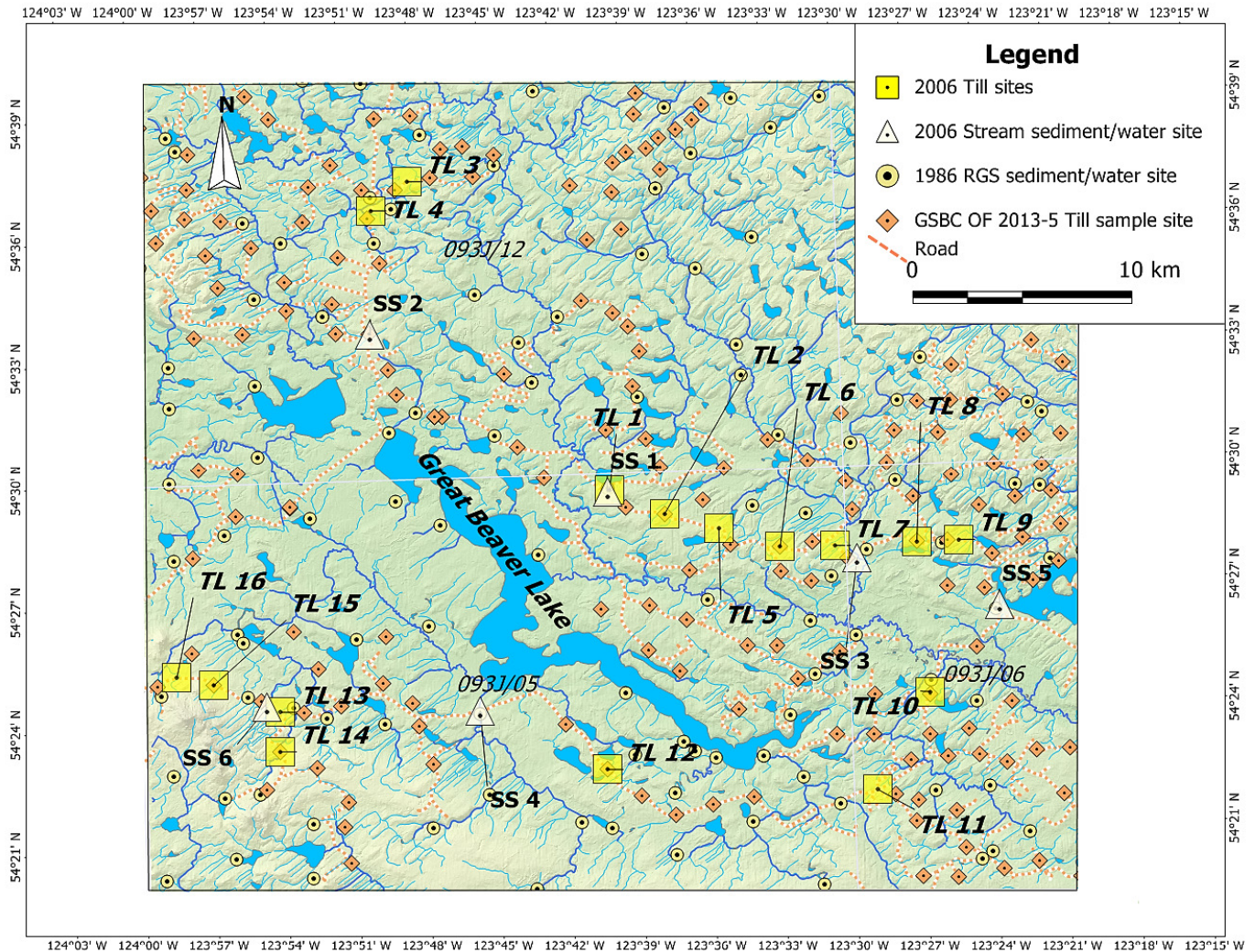
Before 2006 the only geochemical sampling undertaken by government in the NTS 093J area was in 1985, as part of the Regional Geochemical Survey (RGS; British Columbia Ministry of Energy, Mines and Petroleum Resources, 1986). Faulkner (1987) evaluated the results from the geochemical survey and the stream sediment were later re-analyzed for 37 elements by HCl-HNO<sub>3</sub>-H<sub>2</sub>O dissolution- ICP-MS (Lett and Bluemel, 2006) and for 33 elements by INAA (Jackaman, 2013). Ward et al. (2013) collected till from 760 sites in six 1:50,000-scale NTS map sheets in the southwest part of NTS 93J. The clay (< 5 µm) fraction of the samples was analyzed for elements by HCl-HNO<sub>3</sub>-H<sub>2</sub>O dissolution-ICP-MS and the silt-clay (<0.002 mm) fraction analyzed for elements by INAA. In addition to the sample sites for the 2006 orientation geochemical survey, Figure 2 shows the location of the RGS stream sediment and stream water sites and the regional till sites (Ward et al., 2013).

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**Fig. 2.** Till, stream sediment and stream water sample sites from 2006 survey (Lett and Bluemel, 2006; this study), sediment and water sample sites from 1986 RGS survey (British Columbia Ministry of Energy, Mines and Petroleum Resources, 1986), and regional till sample sites from Ward et al. (2013).

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