

SCIENTIFIC RESEARCH LICENSE

LICENSE # 04 007 26R-M

ISSUED TO: Eric Bottos
Department of Biological Sciences, Thompson River University
805 TRU Way
Kamloops, BC, V2C 0C8 Canada

TEAM MEMBERS: G. Freeze

AFFILIATION: Thompson River University

TITLE: Responses of Permafrost Microbial Communities to Climate-Driven Thaw

OBJECTIVES OF RESEARCH:

Building on our work from 2025, we aim to once again collect soil and permafrost samples from multiple sites across the Canadian High Arctic. Gwen Freeze will join Adventure Canada on their Into and Out of the Northwest Passage trips this August and September 2026. At proposed sampling sites and in 3x3 meter sampling plots, a small quantity of overlying soil (~1 kg) will be collected using a spade and shovel and a 30 cm permafrost core will be collected using an electric-powered drill. This year, we also aim to collect small bryophyte samples (≤ 5 grams per site) using sterile forceps from the same locations proposed for soil sampling. Upon return to Thompson Rivers University, soil, permafrost, and bryophyte samples will be subjected to microbial analysis. Environmental impacts will be minimal, with all wildlife habitats and sensitive vegetation carefully avoided during sampling, and soil layers kept separate and restored in their original order post-sampling. Considering the impacts of weather and conditions on land access and sample collection last year, as well as changes to Adventure Canada's itineraries this year, we propose to add seven new sampling locations for 2026, for a total of thirteen sampling sites.

TERMS & CONDITIONS:

The holder of the license will be bound by the terms and conditions of the Nunavut Impact Review Board Screening Decision Report (NIRB File #25YN051) and the Department of Culture & Heritage archaeological sites terms and conditions. These terms and conditions will form part of this license.

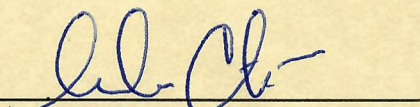
DATA COLLECTION IN NU:

DATES: August 26, 2026-September 29, 2026

LOCATION: Beechey, Prescott (Islands), Pasley, Aston, Maxwell (Bays), Dundas, Strzelecki (Harbours), Powell, Coutts, Grise Fiord, Wrottesley (Inlets), Port Leopold, Fort Ross

Scientific Research License 04 007 26R-M expires on December 31, 2026

Issued at Iqaluit, NU on August 17, 2026


James Shirley
Science Advisor

PER

