

Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

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SCIENTIFIC RESEARCH LICENSE

LICENSE # 02 021 21R-M

ISSUED TO: Wayne Pollard
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AFFILIATION: McGill University

TITLE: An Investigation of the Sensitivity of High Arctic Permafrost to Climate Change

OBJECTIVES OF RESEARCH:

My long-term project aims have been as follows:to identify and measure changes (and rates of change) occurring in tundra and polar desert landscapes related to increased active layer thickness and thermokarst,to determine ground ice and permafrost characteristics and assess their vulnerability to climate change, and to assess local climate variability. Linked to these aims has also been the development of non-invasive shallow geophysical techniques, dGPS and UAVs as tools to detect and monitor changing permafrost conditions. The importance of this research is highlighted by the dramatic increase in thawing permafrost observed in the unusually warm summers. The information collected in this study will improve our understanding of how climate and permafrost interact, and the potential resiliency of permafrost systems to changing summer conditions, both of which will allow for the better prediction of future changes. This research also has a significant training component involving students on several levels.

TERMS & CONDITIONS:

The holder of the licence will be bound by the terms and conditions of the Nunavut Impact Review Board Screening Decision Report and the Department of Culture & Heritage archaeological sites terms and conditions. The license holder will abide by all special public health protection measures imposed by Nunavut's Chief Medical Officer of Health in response to the Covid-19 Pandemic, including restrictions on non-essential travel to Nunavut. These terms and conditions will form part of this licence.

DATA COLLECTION IN NU:

DATES: April 01, 2021-August 30, 2021

LOCATION: Ellesmere Island,Axel Heiberg Island

Scientific Research License 02 021 21R-M expires on December 31, 2021

Issued at Iqaluit, NU on March 25, 2021



Mary Ellen Thomas
Science Advisor

