

# Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

Box 1720, Iqaluit, NU X0A 0H0 phone:(867) 979-7279 fax: (867) 979-7109 e-mail:  
[msha.cote@arcticcollege.ca](mailto:msha.cote@arcticcollege.ca)

## SCIENTIFIC RESEARCH LICENSE

LICENSE # 02 001 20R-M

ISSUED TO: Yonas Dibike  
Hydrologic Modelling & Hydro-Climate Analysis and Impact Studies  
3800 Finnerty Road, 1st, Office B130  
Victoria, BC  
V8P 5C2 Canada

TEAM MEMBERS: L. de Rham

AFFILIATION: Environment and Climate Change Canada

TITLE: Climate Change Effects of a Changing Cryosphere on Northern Lakes

### OBJECTIVES OF RESEARCH:

Climate change is projected to cause significant change to arctic aquatic ecosystems. Changes in the thickness and composition of arctic lake ice covers will produce second order impacts on lake biological productivity and ecology. The most important effects are likely to result from changes in temperature (ice growth) and precipitation (ice cover composition). While a number of models have been developed to model these changes, their validation has been stalled by lack of relevant field data. Relevant field data has been gathered annually since 2009. For 2020, ice-composition surveys may be repeated, depending on time and resource availability, at the above noted lakes with the assistance of local contractors or agencies. If undertaken, the proposed completion dates for the surveys at the lake sites will be between January 1 and June 30, 2020. Specific dates will be determined based on agency/contractor availability.

### 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 archeological sites terms and conditions. These terms and conditions will form part of this licence.

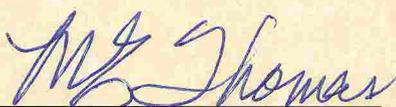
### DATA COLLECTION IN NU:

DATES: January 01, 2020-June 30, 2020

LOCATION: Lake Hazen, Lower Dumbell Lake

Scientific Research License 02 001 20R-M expires on December 31, 2020

Issued at Iqaluit, NU on October 24, 2019



Mary Ellen Thomas  
Science Advisor

