# Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

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### SCIENTIFIC RESEARCH LICENSE

LICENSE # 02 016 12R-M

**ISSUED TO:** 

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**TEAM MEMBERS:** 

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AFFILIATION:

Queen's University

TITLE:

High Arctic Permafrost Landscape Stability and Water Quality. Sabine

Peninsula, Melville Island Nunavut

#### OBJECTIVES OF RESEARCH:

The aim of the research project is to develop knowledge to help predict what landscape controls affect water quality. In particular, we will study the impact of natural permafrost and vegetation disturbances. We will map permafrost disturbances (1954-present) with satellite images and aerial photographs, and develop a landscape model to predict future disturbances across different rock, slope and plant surfaces. We will also integrate water quality monitoring to create models to predict changes in water quality associated with permafrost disturbance. These models will be of primary value to effectively manage this region of the High Arctic in a changing climate and to support the development of natural gas resources in the region in the future.

## **TERMS & CONDITIONS:**

The holder of the license will be bound by the terms and conditions of the Nunavut Impact Review Board Screening Decision Report and by the Department of Culture, Language, Elders and Youth archeological sites terms and conditions. These terms and conditions will form part of this license.

## DATA COLLECTION IN NU:

DATES: July 15, 2012-July 30, 2012

LOCATION: Melville Island

Scientific Research License 02 016 12R-M expires on December 31, 2012 Issued at Iqaluit, NU on March 08, 2012

Mary Ellen Thomas Science Advisor

