

**SCIENTIFIC RESEARCH LICENSE**

LICENSE NUMBER 02 027 22R-M

ISSUED TO: Gifford Miller  
INSTAAR & Geological Sciences  
University of Colorado Boulder  
4001 Discovery Drive  
Boulder, Colorado  
80309-0450 USA

TEAM MEMBERS: J.Raberg,M.Raynolds,H.Bueltmann,D.Grossman,K.Lindberg,D.Gorbey

TITLE: Ancient DNA in Lake Sediment

**OBJECTIVES OF RESEARCH:**

This fieldwork builds on a project initiated in 2018, titled Ancient DNA in lake sediment. The primary goal of this research is to analyze ancient DNA contained in lake sediment in order to reconstruct past vegetation changes on Baffin Island over the last ~10,000 years and assess how plant communities responded to past climate change. Ancient DNA in lake sediment is a powerful new tool in paleoecology that seems to work particularly well in the Canadian Arctic because of the cold temperatures that provide favorable conditions for preservation and because DNA provides a comprehensive picture of flora growing within a lake catchment. Our goal this year is to complete the fieldwork required for the project. This requires us to sample a lake on Padloping Island south of Qikiqtarjuaq first, with the assistance of two bear guards we will hire from Qikiqtarjuaq.

**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. These terms and conditions will form part of this licence.

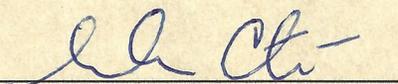
**DATA COLLECTION IN NU:**

DATES: July 24,2022 to August 25,2022

LOCATION: Areas around Clyde River, Iqaluit, Qikiqtarjuaq and Pond Inlet

Scientific Research License 02 027 22R-M expires on December 31,2022

Issued at Iqaluit, NU on April 19,2022

  
Per Jamal Shirley  
Science Advisor

