

March 30th, 2018

To: Nunavut Water Board
c/o Manager of Licensing
P.O. Box 119
Gjoa Haven, Nunavut, X0A 1J0

Re: Year-end report for License 8WLC-KLG1718,
Kathleen Lake Geoscience Project

The Kathleen Lake Geoscience Project was licensed as field-base geoscience initiative to take place in the month of July 2017 in the Bear Creek Hills located to the east of Bathurst Inlet, Kitikmeot region of Nunavut. Scope of the project was to increase the general geoscience understanding of this underexplored area of Nunavut, and to disseminate the results to nearby communities, with a specific focus on potential mineral and carving-stone commodities found in the study area. Water uses related to the project included only collection from a lake for drinking and cooking purposes, and no waste of any kind was disposed into or nearby water bodies or streams.

The field crew consisted of Dr. Alessandro Ielpi (Laurentian University) as party leader, Ms. Sophie Michel (Laurentian University) as M. Sc. candidate, and Mr. John Wilder Greenman (Carleton University) and Ms. Lorraine Lebeau (Laurentian University) as assistants. The field crew accessed the field site on the morning of July 8th, with a direct flight from Yellowknife chartered by Air Tindi. The chartered Cessna Caravan floatplane landed on Starvin Lake (approximately at 66° 41' 32", 107° 27' 18"), after having circled over the study area for *ca.* 10 minutes in order to verify that no wildlife or shore birds would have been disturbed during the operations. After a brief reconnaissance, the main camp was established on the north-eastern shore of Starvin Lake, at 66° 41' 60", 107° 27' 30". Conditions were clear and no wildlife or shore birds were identified during the operations of camp setup. The floatplane left shortly thereafter.

The camp consisted of an headquarter geodetic tent and four small camping tents (Figure 1 on page 3). No other semi-permanent structures were erected, and garbage was stored in odour-free sealed bags contained in a pale approximately 100 meters away from camp. Water for drinking and cooking was collected from Starvin Lake, and no sewage was released on the ground or in any body of water or stream. Due to deteriorating weather conditions, Air Tindi was contacted and the camp was demobilized one day earlier than planned, on the morning of July 17th. The chartered Cessna floatplane landed again on Starvin Lake and the entire camp was cleared by the earliest afternoon. Any disturbed ground at the camp site was reclaimed to its natural state, as best as possible, so that no sign of the camp was left after demobilization.

Following on the field activities, a set of samples was shipped to the University of Manitoba for analysis, and the results from the analyses are currently being processed. Preliminary results from the field season were compiled in a Summary of Activities, which is made available on-line and in print by the Canada-Nunavut Geoscience Office. Dr. Ielpi and Ms. Holly Steenkamp from the Canada-Nunavut

Geoscience Office travelled to Ikaluktutiak (Cambridge Bay) in November 2017, where they presented results from field activities in the area surrounding Bathurst Inlet. This community engagement meeting was held at the Canadian High Arctic Research Station (Figure 4 on page 3). Approximately 60 individuals attended the event, including elders from the Bathurst Inlet area, for whom a service of simultaneous translation in Inuinnaqtun was provided. Community engagement activities also included visits at the hamlet office and the local campus of the Nunavut Arctic College. In the upcoming 18 months, we expect to publish additional results from the 2017 field season, as part of the M. Sc. program of Ms. Michel, and we are tentatively planning to organize a second round of community engagement meetings in Ikaluktutiak for February 2019.

Should you require additional information, please do not hesitate to contact me at aielpi@laurentian.ca.

Sincerely,

Dr. Alessandro Ielpi
Assistant Professor of Sedimentology

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Figure 1. Camp layout on the north-eastern shore of Starvin Lake (*left*).



Figure 2. Collection of rock samples with hand tools. Kathleen Lake in the Background.

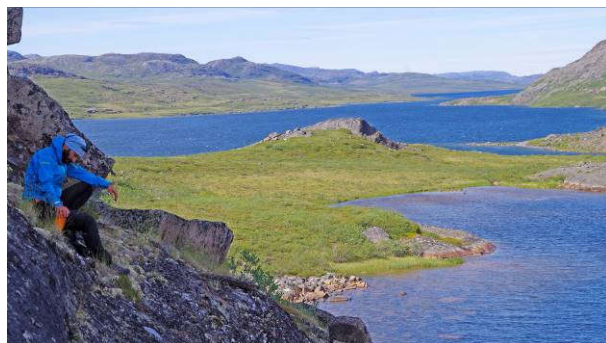


Figure 3. Measuring natural rock composition with a gamma-ray spectrometer.



Figure 4. Community engagement meeting in Ikaluktutiak in late November 2017.