

**Project: *Coppermine River Transect***

**Activities:** Fieldwork is proposed to acquire geological observations and collect rock samples for laboratory analysis. Results of fieldwork in the area will contribute to acquiring state-of-the-art data, updated maps, and related publicly available publications.

An approximately 3-km thick exposure of sedimentary and volcanic rock can be observed and sampled between Dismal Lakes and Kugluktuk along the Kendall and Coppermine rivers. Work consists of visual examination, description, measurement, and photography of outcrops. GPS units and satellite imagery will be used to locate samples and rock outcrops.

Work is mainly done on foot by small crews (2-4 people). Samples are collected using hammers and chisels and cached at campsites for helicopter pick-up. Samples are sent south to be analyzed in laboratories to update geological information and improve understanding of the area's rock record.

**Necessity:** Currently available bedrock geology maps and related geoscience information for the area are based on a reconnaissance survey done more than 45 years ago and smaller studies since. Proposed work will lead to more complete and accurate geoscience information contributing to informed land use decisions.

**Duration:** Fieldwork in the area, described above, is planned from July 10 – August 12, 2017. Analysis of samples and interpretation of the data resulting from the fieldwork will be conducted from the Geological Survey of Canada, Ottawa office and will be completed by March 31, 2020.

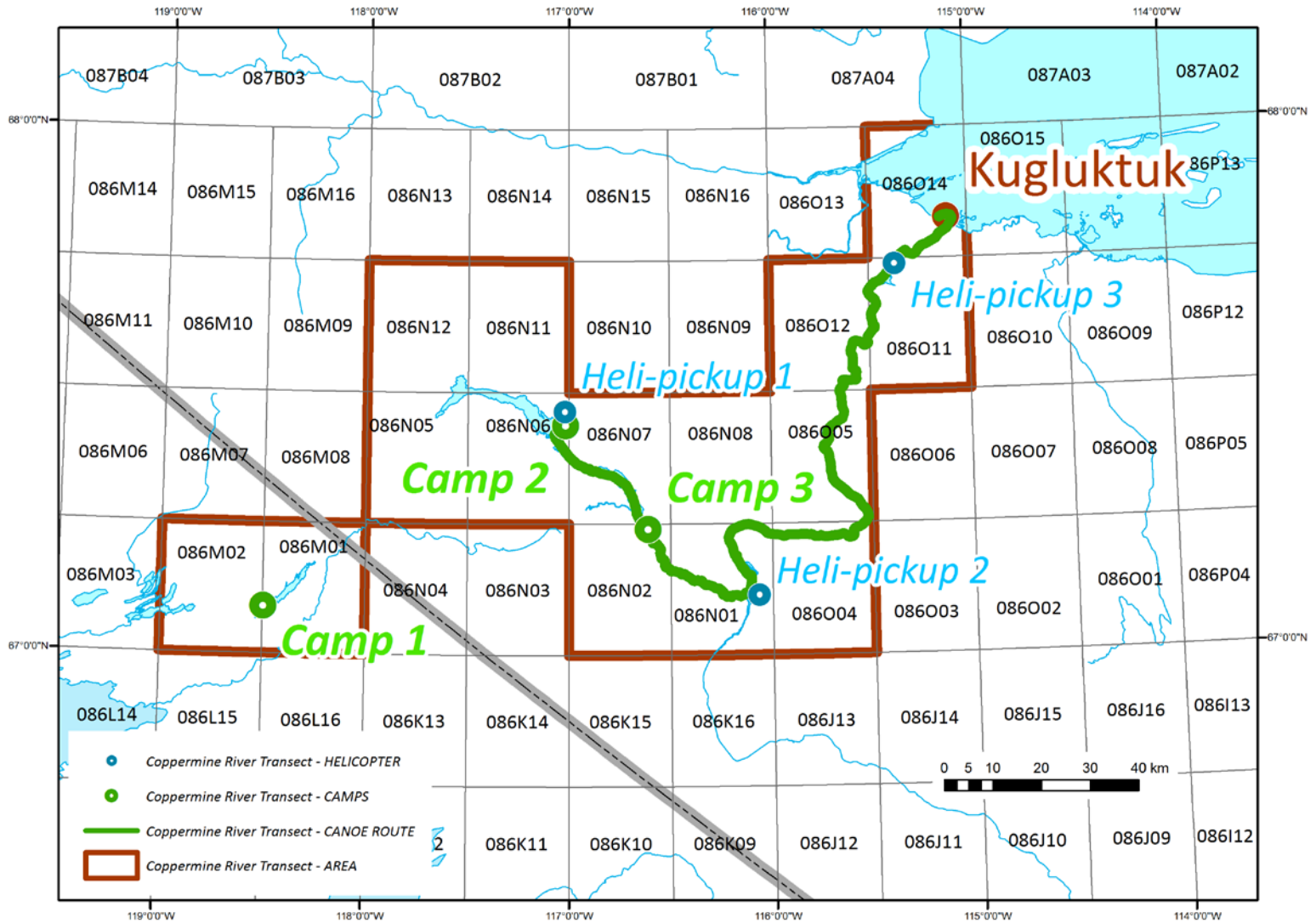
**Transportation:** A fixed wing aircraft will be used to deploy 6 people to Camp 1 (Fig. 1) and move them to Camp 2. At Camp 2, and two other sites, a helicopter will move personnel to localities for one day at each site, and return to Kugluktuk with samples; no fuel caches required.

A team of 10 will travel by canoe from Camp 2 to 3. At Camp 3, 6 people will arrive by float-plane and 4 will return to Yellowknife. A team of 12 will travel to Kugluktuk via canoe down the Kendall and Coppermine rivers camping for 1-2 days at various locations along the rivers. A charter aircraft will transport personnel, equipment, and samples to Yellowknife at the end of fieldwork.

**Structures/Restoration:** Only two-person tents will be erected at campsites. "Leave no trace" principals will be applied to ensure sites are restored to natural conditions. Photos will be taken to document use of campsites. Waste will be flown out and properly disposed of in Kugluktuk.

**Alternatives:** The alternative to collecting new field data is using existing data. There are not sufficient existing data to improve the geological interpretation of the area.

**Long-term:** No long-term development of the area is planned by the project. Data, including maps analytical results and photographs will be managed by the GSC over the long-term and publically available, providing local communities, governments, industry, and the public access (at least 20 years). An activity report is published within 3 months of fieldwork and provided to local communities as a follow up to initial engagement.

**Map****Figure 1. Coppermine River Transect study area**