



ᓄᑦᐱᕐ ᐸᐸᑎᑕᑲᓴᐅᑦ ᑲᑎᒪᓴᓯᑦᑎᑭᑦ ᑐᔨᓯᖃᑐᑦ ᑭᑭᑦᑭᑦᑭᑦ #126462

Studying Long-Term Changes in Arctic Ocean Ecosystems near Qikiqtarjuaq

New

Scientific Research

Period of operation: from 2026-08-01 to 2029-10-31

ለፕላንቢያል፡
Natasha Leclerc
Université Laval
315 rue Saint-Jean, Apt. 421
Quebec Quebec G1R 1N9
Canada
ፎኑንቢያል፡ 6475235994, ሶፐስቢያል፡

ፍጹሙ ለሥራ ለሥራ ለሥራ ለሥራ ለሥራ

ᐅᐃᐱᐅᐅ: N/A Inuktitut or English are the common languages used in Qikiqtarjuaq.

[illegible]

Inuinnaqtun: N/A Inuktitut or English are the common languages used in Qikiqtarjuaq.

Operations Phase: from 2026-08-01 to 2029-10-31

Λ Γ Δ Ε Ζ Η Θ Ι Κ Λ Μ Ν Ξ Ο Π Ρ Σ Τ Υ Φ Χ Ψ Ω

ᐊᑦ	ᖃᓄᐃᑦᐅᑦᑦ ᐱᑦᑦᐱᑦᖃᑦᐱᑦᐱᑦ	ᑭᑦᐱᑦ ᓄᐊᑦᐱᑦ	ᐅᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦ ᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦ	ᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦ ᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦ ᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦ	ᖃᓄᐱᑦᐱᑦᐱᑦ ᓄᐊᑦᐱᑦᐱᑦᐱᑦᐱᑦ ᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦᐱᑦ
Only marine areas near the coast will be used to collect clams and coralline red algae specimens.	Scientific/International Polar Year Research	Marine	Region has a long history of oceanographic and biological research much of which has been led by Université Laval and Memorial University of Newfoundland including the Green Edge project (2015-2016). The area has also long been used for sea mammal hunting by Inuit. Coralline algae is known to be thick and of the desired species in the southern extent of the polygon from prior research in 2014.	n/a	At most, 115 km away from Qikiqtarjuaq
The platform will be installed under seawater near the coast in this zone near the Island of Qikiqtarjuaq	Scientific/International Polar Year Research	Marine	Area surrounds the community of Qikiqtarjuaq, and has a long history of hunting and use for travel for Inuit since time immemorial. The region also has a long history of oceanographic and biological research much of which has been led by Université Laval and Memorial University of Newfoundland including the Green Edge project (2015-2016).	n/a	At most 25 km away from Qikiqtarjuaq.

[illegible][illegible]

ᑕᐃᕐᕐᕐ ᐱᕐᕐᕐ ᐃᕐᕐᕐᕐᕐ

ᐃᕐᕐᕐᕐ ᐱᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐ ᐱᕐᕐᕐᕐᕐᕐ:

South Baffin

ᑕᐃᕐᕐᕐ ᐱᕐᕐᕐ ᐃᕐᕐᕐᕐᕐ

ᑕᐃᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐ	ᐃᕐᕐᕐᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐᕐ	ᐃᕐᕐ ᐃᕐᕐᕐᕐᕐᕐ	ᐃᕐᕐᕐ ᐃᕐᕐᕐᕐᕐ/ ᐃᕐᕐᕐᕐᕐᕐᕐᕐᕐᕐ	ᐃᕐᕐᕐᕐᕐᕐ
Nunavut Planning Commission	NPC (File #151191) determined that project falls outside an area of applicable regional land use plan	Active	2026-06-03	
Hunters and Trappers Associations/Organizations	Approval letter provided by Nattivak HTO Chairperson, Jaypootie Aliqatuqtuq.	Active	2026-02-18	
ᐃᕐᕐᕐ	Authorization from Department of Fisheries and Oceans will be sought in the next week for collection.	Not Yet Applied		
ᐃᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐᕐᕐᕐᕐᕐ	Application for research permit to conduct research starting in August 2026. Application submitted June 4, 2026.	Applied, Decision Pending		

Project transportation types

Transportation Type	ᐃᕐᕐᕐ ᐃᕐᕐᕐᕐᕐᕐᕐ	Length of Use
Water	Small boat craft (summer) or skidoo (winter) to collection or growth monitoring platform sites.	

Project accomodation types

ᐃᕐᕐᕐᕐᕐᕐ

Λ^{5d} C^{4a} r^{5b} C^{5b} C^{5b} σ^{5b} h^{5b} Δ^{5b} r^{5b} n^{5b} r^{5b} C^{5b} Δ^{5b} C^{5b}, r^{5b} C^{5b} Δ^{5b} C^{5b}, r^{5b} C^{5b} Δ^{5b} C^{5b}, r^{5b} C^{5b} Δ^{5b} C^{5b}

Inuktitut Name	Quantity	Dimensions / Description	Purpose / Notes
Hand-held pneumatic drill	1	40 x 40 cm	Used to screw plates into rocks (if required depending on the site) at coralline red algae monitoring site during installation day.
Personal SCUBA Equipment	4	50 x 100 cm	Used to aid divers in collecting specimens and installing monitoring site
Environmental Loggers	4	10 x 30 cm	Photosynthetic active radiation, light, temperature, salinity and pH loggers to be installed at 20m depth at monitoring site
Small vessel	1	10-15 m	Local rental through outfitter and guide to bring researchers to and from field sites
Snowmobile	4	322 x 108 x 110 cm	Qikiqtarjuaq Research Centre rental to bring researchers to and from field sites in ice-cover season
Stainless steel rods	10	30 cm x 1 cm	Used to anchor instruments and platform to the seafloor.
Stainless steel screws	20	1 x 3 cm	Used to anchor instruments and platform to the seafloor.
Stainless steel brackets	4	(10 x 10 x 3 cm)	Used to anchor instruments and platform to the seafloor.
PVC Sheet	10	19 x 35 cm	Used as base for platform
Splash Zone Putty	4	0.25 gallons (15 x 15 cm)	Used to cement algae into PVC plates
Hammer and chisel	2	20 x 4 cm	To pry algae off rocks during collection
Stainless Steel Bracket	4	12 x 2.54 cm	Used to anchor instruments and platform to the seafloor.
Bin	1	84 x 51 x 34 cm	Container to stain algae with alizarin red (to mark algae at the start of the study in the lab before algae are removed from stain solution and deployed on the platform on the sea floor).
Growing light (Fluval Sea marine spectrum LED)	2	6.5 x 61 x 2 cm	Light will be installed over the bin and staining algae

▷◁ Cİ ^{cb} ◁▷ ^{cb} C▷◁ ^{cb} ▷◁ ^{cb}	◻ ^{cb} ΔΓ ^{cb} C ^{cb} C ^c ◻ ^{cb} ◻ ^c	◻ ^c ΔΓ ^{cb} C ^{cb} C ^c ◻ ^{cb} ◻ ^c
0		

$$\Delta^b C d r n \sigma \Delta^c \sigma^c$$

ᐱᓕᓂᐸᓂᔭᐅᖃᓴᖅ ᐱᓕᓂᐸᓂᔭᐅᓄᐸᖅ	ᖃᓄᐸᓂᔭ ᐸᖅᐸᓂᔭᖅ	ᖃᓄᓂᓯ ᐸᖅᐸᓂᔭᖅ ᖅᓴᓴᐸᓄᐸᐸᓂᔭᐅᓂᖅ	ᖃᓄᖅ ᐸᖅᐸᓂᔭᐅᓄᐸᖅ	ᖅᓴᓴᓴᖅᐸᓂᔭᐅᓂᔭᖅᓄᐸᓂᔭᐅᓄᐸᖅ
Researching	ᐸᖅᐸᓂᔭᖅ ᐸᓄᐸᓂᔭᐅᖃᓴᖅ	10 lbs	Bin, growing lights and jerry can will all by transported back to Quebec City for future projects and/or disposal.	N/A
Researching	ᐸᖅᐸᓂᔭᖅ ᐸᓄᐸᓂᔭᐅᖃᓴᖅᓴᓴᓂᖅ	5 lbs	Some packaging waste from equipment shipment will be sent to the Qikiqtarjuaq landfill. No other waste is expected.	N/A
Researching	ᐸᖅᐸᓂᔭᖅ ᐸᓄᐸᓂᔭᐅᖃᓴᖅᓴᓴᓂᖅ	Approximately 40 lbs	Materials used for the platform, including sensors, batteries, stainless steel, cemented algae, will be brought back to the Université Laval after the study by air or by boat. Some stainless steel rods or screws with a bit of the Splash Zone Putty cement may be left on the seafloor if cementing is required. Otherwise, no other waste is expected.	N/A
Researching	ᐸᖅᐸᓂᔭᖅ ᐸᓄᐸᓂᔭᐅᖃᓴᖅᓴᓴᓂᖅ	25 g	Alizarin red will be diluted in water within plastic bins in the lab at the Qikiqtarjuaq Research Centre. All unused alizarin and water will be stored at the Qikiqtarjuaq Research Centre until it can be shipped back to	N/A

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

The project area is located in the marine environment adjacent to the hamlet of Qikiqtarjuaq, approximately 1-110 km from the community depending on sampling or surveying location. The area is regularly used by Inuit for travel, harvesting, fishing, hunting, and other land- and sea-based cultural activities. Marine resources contribute significantly to local food security, cultural continuity, recreation, tourism, and the local economy. While no archaeological, palaeontological, or culturally significant sites are known to occur within the marine project footprint, the surrounding region contains numerous Inuit cultural landscapes, traditional travel routes, harvesting areas, and archaeological sites of cultural and historical importance. Any previously

unidentified cultural resources encountered during project activities would be reported to the appropriate authorities. The area experiences seasonal vessel, snowmobile, and small-aircraft traffic associated with community activities, harvesting, tourism, research, and resupply operations. Local resource use includes subsistence harvesting of marine mammals, fish, seabirds, shellfish, and other country foods, as well as tourism, guiding, and wildlife viewing activities. Human health and well-being in the region are closely linked to access to country foods, environmental quality, cultural practices, and opportunities for safe travel on the land and sea ice. The proposed research activities are limited in scale, non-destructive, and are not expected to adversely affect community well-being, resource use, cultural values, navigation, or harvesting activities. Other valued socioeconomic components identified through community engagement and regional studies include food security, cultural continuity, knowledge sharing, environmental stewardship, and access to marine resources.

Miscellaneous Project Information

[illegible]

The proposed project is expected to have minimal environmental and socioeconomic impacts. Project activities are limited to small-scale, non-destructive marine scientific research and environmental monitoring. No construction, blasting, fuel caching, waste disposal, or long-term infrastructure installation is proposed. Potential negative impacts are expected to be minor, temporary, and mitigable. These may include short-term disturbance from vessel or snowmobile activity, noise, or the presence of researchers in marine areas used by wildlife and community members. Mitigation measures will include minimizing time on site, avoiding close approaches to wildlife, maintaining clean field practices, preventing the release of waste or contaminants, and coordinating activities with local partners to avoid interference with harvesting, travel, or culturally important activities. Communication with the community will be maintained throughout the research period through local radio, Facebook, and regular contact with the Qikiqtarjuaq Research Centre. These communication channels will provide opportunities for community members to raise concerns or identify potential impacts, allowing project activities to be clarified, modified, or relocated where appropriate. Potential socioeconomic impacts are expected to be neutral to positive. The project may contribute to local knowledge, environmental monitoring, research capacity, and understanding of marine ecosystems important to food security and community well-being. No adverse effects on human health are anticipated. The project will not restrict access to travel routes, hunting areas, fishing areas, or other marine resource-use areas. No transboundary effects are anticipated, as project activities are localized near Qikiqtarjuaq and do not involve emissions, discharges, habitat alteration, or activities likely to affect areas outside the local study area. Species listed under the federal Species at Risk Act (SARA), including polar bear, bowhead whale, narwhal, and certain seabird species, may occur regionally. The project is not expected to adversely affect listed species, their critical habitat, or residences. Researchers will avoid disturbance to wildlife, maintain appropriate distances from marine mammals, birds, and polar bears, and suspend or relocate activities if sensitive species are observed nearby. Overall, identified impacts are expected to be either positive or negative but mitigable. No negative non-mitigable impacts are anticipated. Monitoring will occur through field observations, documentation of any wildlife interactions or unusual environmental conditions, and ongoing communication with local partners and community members.

Cumulative Effects

The proposed project is not expected to contribute meaningfully to cumulative environmental effects. Activities are limited to small-scale, non-destructive marine scientific research and environmental monitoring and will not result in significant habitat alteration, resource depletion, pollution, or long-term infrastructure development. While the project will occur within a region that experiences ongoing community activities, harvesting, tourism, marine transportation, and research, its contribution to cumulative effects is expected to be negligible due to its limited spatial extent, short duration, and low-intensity nature. The project is not expected to interact with past, present, or reasonably foreseeable future activities in a manner that would result in significant cumulative environmental or socioeconomic effects.

Impacts

$\mathbb{A}^b \mathbb{C} \triangleright \sigma^a \mathbb{R}^c \triangleleft \mathbb{R} \mathbb{C} \triangleright \mathbb{C}^c \mathbb{D}^c \triangleleft \mathbb{D}^b \mathbb{C}^b \mathbb{C} \triangleright \mathbb{L} \mathbb{R}^c$

Physical																
Designated environmental areas																
Ground stability																
Permafrost																
Hydrology / Limnology																
Water quality																
Climate conditions																
Eskers and other unique or fragile landscapes																
Surface and bedrock geology																
Sediment and soil quality																
Tidal processes and bathymetry																
Air quality																
Noise levels																
Biological																
Vegetation																
Wildlife, including habitat and migration patterns																
Birds, including habitat and migration patterns																
Aquatic species, incl. habitat and migration/spawning																
Wildlife protected areas																
Socio-Economic																
Archaeological and cultural historic sites																
Employment																
Community wellness																
Community infrastructure																
Human health																

$$(P = \langle b \rangle \dot{\cup} \rho \cap \dot{\cup} a^{\text{fb}} \supset^c, N = \langle b \rangle \dot{\cup} \rho \cap \dot{\cup} C \dot{\cup} a^{\text{fb}} \supset^c \subset \dot{\cup} C \dot{\cup} \Gamma \dot{\cup} \dot{\cup} a^{\text{fb}} \supset^c \dot{\cup} C \dot{\cup} \dot{\cup} a^{\text{fb}} \supset^c \supset^c, M = \langle b \rangle \dot{\cup} \rho \cap \dot{\cup} C \dot{\cup} \dot{\cup} a^{\text{fb}} \supset^c \supset^c \subset \dot{\cup} C \dot{\cup} \Gamma \dot{\cup} \dot{\cup} a^{\text{fb}} \supset^c \supset^c \dot{\cup} C \dot{\cup} \dot{\cup} a^{\text{fb}} \supset^c \supset^c, U = \dot{\cup} C \dot{\cup} \dot{\cup} a^{\text{fb}} \supset^c \supset^c \supset^c)$$

1 polygon	The platform will be installed under seawater near the coast in this zone near the Island of Qikiqtarjuaq
2 polygon	Only marine areas near the coast will be used to collect clams and coralline red algae specimens.

- | | |
|-----------|---|
| 1 polygon | The platform will be installed under seawater near the coast in this zone near the Island of Qikiqtarjuaq |
| 2 polygon | Only marine areas near the coast will be used to collect clams and coralline red algae specimens. |

