ᓄᓇᕗᒻ ᐊᐸᑎᓕᓇᕐᓂᕐᔪᑦ ᑲᑎᒪᔨᖏᑦᑎᙱᑦ ᑐᓴᖅᓯᒪᔨᖏᑦ ᑐᑭᓯᐅᓴᓕᖅᑎᖅ #125365

Characterizing Iqaluit's baseline municipal wastewater contaminant loadings to the marine environment

ᑐᓴᕐᓗᒃᑐᐊᕆᔨᒃᑲ ᖃᓄᐃᑦᑐᖅ:	New
ᐱᓕᕆᔨᒃᑲ ᖃᓄᐃᑦᑐᖅ:	Scientific Research
ᔨᑦᓯᖅ ᑐᓴᕐᓗᒃᑐᑎᓕᐊᑦᑐᖅ:	7/4/2018 12:03:51 PM
Period of operation:	from 0001-01-01 to 0001-01-01
ᖃᓄᐃᓕᖅᑲᐃᔨᔨᒐᓕᕆᓂᖅᑎᑦᑎᔨᔨᒃᑲᓪᓚᑦ:	from 0001-01-01 to 0001-01-01
ᐱᓕᕆᔨᒃᑲᖏᑦᑐᒥᓪᓚᖅᑲᑦ:	Mark Hanson University of Manitoba 252 Wallace Building Winnipeg Manitoba R3T 2N2 Canada ᐅᖏᓐᓂᐅᑎᑦ: 204-474-9897, ᓯᓂᖅᓄᑦ:

ᑐᓴᐅᒪᓗᑦᓴᑦ

ᖃᓄᐃᑦᑐᑎᓂᓗ ᐱᓕᕆᔨᖃᑦᓂᐊᕆᔨᖏᑲᓂᓂᓗ

ᖃᓄᖅᓯᓇᑎᑐᑦ: Added as attached file.

ᐅᐃᒋᑎᑐᑦ: Added as attached file.

ᐃᓄᓐᑎᑐᑦ: Added as attached file.

Personnel

Personnel on site: 2

Days on site: 21

Total Person days: 42

Operations Phase: from 2018-08-26 to 2022-03-25

ᐱᓪᓇᐊᓇᔨᐅᓂᐊᖅᑐᑦ

ᓇᒥ	ᖃᓄᐃᓕᒋᑎᑦ ᐱᓪᓇᐊᖃᖅᓂᐊᖅᐸ	ᑭᓱᑦ ᓄᓇᕗᒻᒧᓂ	ᑐᓴᐅᒪᔨᓴᓱᑦ ᓄᓇᐅᑦ ᖃᑐᒃᐅᓪᓚᐅᖃᖅᑐᒪᔨᓇᐊᖅᑲᓐᓂᓱ	ᐃᑦᓴᓂᑕᖃᖅᐸᐊᐅᓚᐅᖅᐸ ᐃᓄᖅᓄᑦ ᓇᔪᖅᑕᐅᖃᖅᑕᓂᓕᔪᓂ ᑕᐃᑦᓱᒪᓂᑐᖃᐅᓪᑐᖅ	ᖃᓄᖕᓂᓂᖅᐸᖅ ᓄᓇᓕᑭᔨᐅᔪᖅ ᐊᒡᒪᓗ ᓴᐳᒡᑭᐃᐅᔪᓗ ᓱᓇᓄᑦ
Possible Reference Site	Sampling sites	Marine	Site of continuous effluent release by the City of Iqaluit for many years.	Not known.	Adjacent to the City of Iqaluit wastewater treatment plant.
Possible Reference Site	Sampling sites	Marine	Not known.	Not known.	Located near Iqaluit, but outside the Sylvia Grinnell Territorial Park.
Sampling site in effluent plume	Sampling sites	Marine	Active shipping lane.	Not known.	Close to City of Iqaluit and proposed new harbour.
Sampling site in effluent plume	Sampling sites	Marine	Active shipping lane.	Not known.	Close to City of Iqaluit and proposed new harbour.
Sampling site in effluent plume	Sampling sites	Marine	Active shipping lane.	Not known.	Close to City of Iqaluit and proposed new harbour.
Sampling site at possible farthest extent of effluent plume	Sampling sites	Marine	Active shipping area.	Not known.	Close to City of Iqaluit and proposed new harbour.
Sampling site at possible farthest extent of effluent plume	Sampling sites	Marine	Active shipping area.	Not known.	Close to City of Iqaluit and proposed new harbour.

ᓄᓇᕗᑦ ᐃᓕᐅᖃᑕᐅᓂᖏᓐ ᓄᓇᓕᒻᒥ ᐊᐱᵇᑐᖃᖅᓂᒪᔨᓂᖏᓐᓄᓂᑦ ᐃᑲᔪᑕᐅᔪᓐᓇᖅᑐᑦ

ᓄᓇᕗᒻᒥᖅ	ᐊᑎᑦ	ᑲᑐᔾᔨᐊᖃᖅᑎᑎᒋᒻᒥᖅ	ᖃᓄᖕᓂᓂᖅᐸᖅ ᑐᑭᓯᔪᓂᖅᑐᑦ

ᐃᖃᓗᐃᑦ	Matthew Hamp	City of Iqaluit	2018-05-07
ᐃᖃᓗᐃᑦ	Christopher Lewis	Department of Fisheries and Oceans	2018-05-01
ᐃᖃᓗᐃᑦ	Pitseolak Alainga	Amaruq Hunters and Trappers Association	2018-05-01

ᓕᐃᓴᓐᓂᑦ ᐱᒍᖅᓇᐅᑎ ᐊᖏᖅᑕᐅᓂᒪᓕᕆᑦ

ᓇᒃᑎᐊᖅᑐᓂᒃ ᐱᓕᓇᐊᓇᕐᓂᐅᓂᐊᖅᑐᑦ ᑎᑎᕀᓐᓄᑦ:

South Baffin

ᓕᐃᓴᓐᓂᑦ ᐱᒍᖅᓇᐅᑎ ᐊᖏᖅᑕᐅᓂᒪᓕᕆᑦ

ᑲᓴᒪᑎᕆᐅᔨᑦ ᐊᐃᒃᑐᑎᖅᓂᒪᓐᓂ ᒪᓕᑲᕀᓈᖅᓂᒃ ᐱᕀᓂᕀᓈᖅᓂᓗ ᑲᒪᒋᔭᑦ ᐱᓕᓴᐅᑎᑦᑕᐅᓂᒃ ᓕᐃᓴᓐᓂᓕᓈᖅᓂᓗ ᑲᔪᓂᒃᑲᐃᔭᑦ	ᖃᓄᐃᑦᑐᓕᓇᐅᓴᓐ ᓕᐃᓴᓐᓂᑦᑕᐅᓂᒪᓕᕆᖅ ᐱᔪᓐᓇᕐᑎᑦᑕᐅᔪᖅ ᐊᖏᖅᑕᐅᓂᒪᓕᕆᖅ	ᐃᓐᓇ ᖃᓄᐃᓕᓴᐅᓕᒃ	ᐅᓪᓗᒥ ᑐᓂᖅ/ ᑐᓂᖅᑐᑕᐅᓕᐅᖅᓂᒪᓕᕆᖅ	ᑭᓚᖃᖅᐸᓕᒃ
Information is not available				

Project transportation types

Transportation Type	ᓂᓇᒍᑦ ᐊᑐᓚᐅᓂᐊᖅᐸ	Length of Use
Water	Boat and snowmobile in winter	

Project accomodation types

ᓄᓇᕗᑦᓴᖅ

ᐊᑐᓚᐅᓂᐊᖅᑐᖅ

ᐱᖕᓂᑦ ᐊᖅᑭᔪᖅ ᐊᑐᖅᑕᐅᓂᐅᓴᔪᖅ ᐃᓕᖅᓯᐅᑎᓗᒋᑦ ᐃᓱᑕᐃᑦ, ᒥᑦᓗᐊᕈᑎᑦ, ᖅᖃᖅᖢᖅ ᐊᓯᖅᑭᑦᓗ

ᐊᖅᑭᔪᖅ ᐱᖕᓂᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ ᖅᖄᐃᑦᑐᓂᖅᖠ	ᖅᖃᑦᓯᐅᓀᑦ	ᐊᖅᑭᓂᖅᑭᑦ - ᐳᖅᑐᓂᖅᑭᑦ	ᓯᖃᒧᑦ ᐊᑐᖅᐅᓂᐊᖅᑕ
Manta trawl	1	2m by 1m	Skim water surface for microplastic sampling

ᑎᑎᕆᐅᓯᖃᓗᒍ ᐅᖅᓯᓵᕆᐃᐊᑦ ᐊᑦᑕᖃᖅᑐᖅᑕᓂᓪᓗ ᐊᑐᖅᑕᐅᓂᐊᕐᓂᖅᑭᑦ

ᓯᖃᒧᑦ ᐅᖅᓯᓵᕆᔨᑎᑲᖅ ᐊᑐᖅᑕᐅᓂᐊᖅᑕ	ᖅᖄᐃᑦᑐᓂᖅᖠᓪᓚᕆᐅᔪ ᐅᖅᓯᓵᕆᔨᑎᑲᖅ	ᖅᖃᑦᓯᐅᓀᑦ ᐅᖅᓯᓵᕆᔨᖅᑲᐅᑎᑦ	ᐃᓐᓴᓵᐅᑦ ᐃᒪᓕᖅᑎᑎᕐᓂᖅᓱᑦ	ᑲᑎᒪᓂᒍ	ᐃᓐᓴᓵᐃᑦ ᐊᒥᓯᓂᖅᑭᑦ	ᓯᖃᒧᑦ ᐊᑐᖅᐅᓂᐊᖅᑕ
Information is not available						

ᐃᒪᖅ ᐊᑐᖅᑕᐅᔨᒧᖅᑐᖅ

ᐅᓪᓗ ᑕᒪᖅ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ	ᖅᖄᓂᖅ ᐃᒥᖅᑕᖅᖃᑕᖅᓂᐊᖅᑕᑦ	ᓂᑭᑦ ᐃᒥᖅᑕᖅᖃᑕᖅᓂᐊᖅᑕᑦ
0		

ᐊᑲᑕᔨᑦ

ᐊᑲᑕᔨᓪᓚᓂᐊᕐᓂᖅ

ᐱᓕᓚᐊᓚᐅᐅᔪᒪᔪᒍᑦ ᐱᓕᓚᐊᓚᐅᐅᓂᐊᖅᑐᖅ	ᖃᐅᓄᐃᑦᑐᖅ ᐊᑲᑕᔨᖅ	ᖃᐅᓄᑎᒋ ᐊᑲᑕᔨᑦ ᓴᖅᑭᐊᓂᐊᖅᑐᓚᐅᐅᔾᑦ	ᖃᐅᓄᖅ ᐊᑲᑦᑕᐅᓂᐊᖅᐸ	ᓴᓗᒪᖅᓴᐅᑎᑲᑲᐅᖅᓯᓂᐅᓂᐊᖅᑐᑦ
Researching	ᖃᐃᖅᑕᓕᓚᓂᖅ	2L of effluent each year of study	Filtrate collected from wastewater effluent will be filtered for microbial analysis at a lab located at the NRI. Resulting filtrate will be sterilized (isopropyl alcohol or bleach) and disposed of down the drain, or stored for disposal back at the wastewater plant, depending on NRI preference or policy.	If available, we will also autoclave the waste.

ᐊᓯᑎᒥᐅᑕᓂᑦᑐᑦ ᐊᑲᑐᖅᑕᐅᓯᒪᔪᑦ

There should be no environmental impacts from the proposed sampling program.

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

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

ᐃᒡᓗ ᐊᕐᑎᐅᕆ ᖃᓄᐃᑦᑐᑦᓯᓇᐅᔪᖓ: ᓄᓇᕆ ᖃᓄᐃᑦᑐᖓ

ᐃᒡᓗ ᐊᕐᑎᐅᕆ ᖃᓄᐃᑦᑐᑦᓯᓇᐅᔪᖓ: ᐅᒪᔨᖅᑕᖃᖅᖓ

ᐃᒡᓗ ᐊᕐᑎᐅᕆ ᖃᓄᐃᑦᑐᑦᓯᓇᐅᔪᖓ: ᐃᓄᓕᓇᓂᕐᒧᑐᓴᔨᑦ-ᐱᕐᓕᐊᔨᓯᓇᓂᕐᒧᑐᓴᔨᑦ

Miscellaneous Project Information

ᓄᓗᓄᐃᖅᑕᐅᓂᖏᑦ ᐊᖑᖅᑕᐅᐅᓪᓚᔨᑦ ᖃᓄᐃᑦᑐᖓᓂᖏᑦ ᕿᓯᐅᒥᔭᔪᖅᑕᐅᓂᐊᖅᓂᖏᓪᓗ

Our study should result in no impacts to ecosystems or human health.

Cumulative Effects

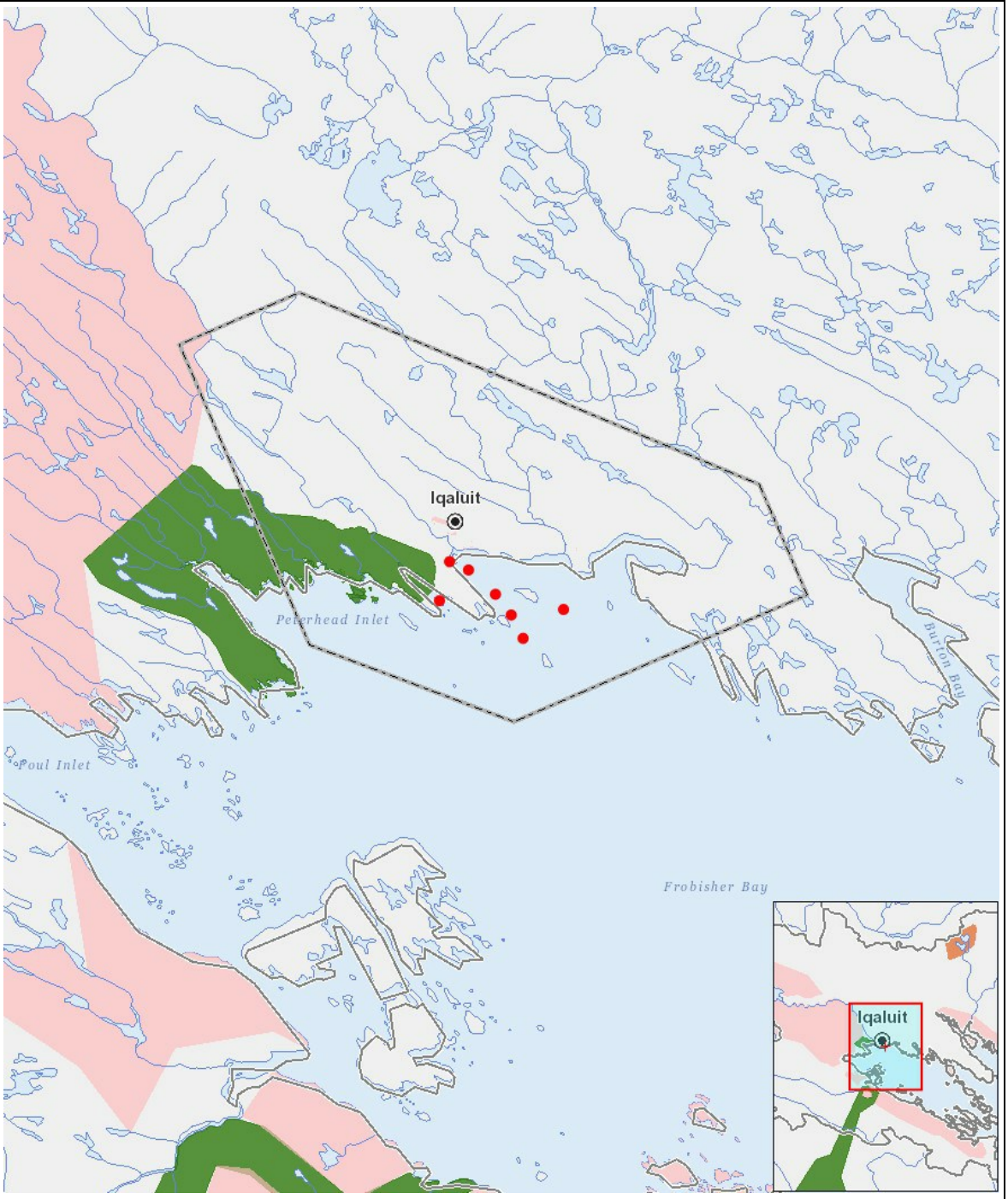
Impacts

ᓄᓗᓄᐃᖅᑕᐅᓂᖅᑎᑦ ᐊᐸᑎᒥᐅᑕᓯᑦᑐᑦ ᐊᑲᑐᖅᑕᐅᓯᒪᔪᑦ

	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
ʕᓄᓂᖅ																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
ᐅᔾᕿᑲᑕᕐᓂᖅ																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
ᐃᑐᑦᑎᓇᓂᖅ																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = ᐊᑲᐅᓴᕈᑎᔪᓐᓇᖅᑐᑦ, N = ᐊᑲᐅᖅᑭᔨᔪᑕᐅᔪᓐᓇᖅᑐᑦ ᕿᓚᐅᒻᔨᔪᓂᖅᑐᑦᑕᐅᔪᓐᓇᖅᑭᑐᑐᓪᓗ, M = ᐊᑲᐅᖅᑭᔨᔪᑕᐅᔪᓐᓇᖅᑐᑦ ᕿᓚᐅᒻᔨᔪᓂᖅᑐᑦᑕᐅᔪᓐᓇᖅᑐᑐᓪᓗ, U = ᖃᑲᐅᔨᒪᓐᓇᖅᑭᑐᑦ)

PROJECT MAP



LIST OF PROJECT GEOMETRIES:

1	point	Possible Reference Site
2	point	Sampling site in direct City of Iqaluit wastewater effluent release
3	point	Sampling site in effluent plume
4	point	Sampling site in effluent plume
5	point	Sampling site in effluent plume
6	point	Sampling site at possible farthest extent of effluent plume
7	point	Sampling site at possible farthest extent of effluent plume