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# **N**UNAVUT **I**MPACT **R**EVIEW **B**OARD **NUNAVUMI AVATILIKIYIN KATIMAYIN**

## **Demande de la CNER faisant l'objet d'un examen préalable #125149**

### **Impacts of air pollution on terrestrial and aquatic ecosystems on Baffin Island**

<b>Type de demande :</b>	Amendment
<b>Type de projet:</b>	Recherche
<b>Date de la demande :</b>	6/3/2017 11:46:36 AM
<b>Period of operation:</b>	from 2017-08-20 to 2017-09-05
<b>Autorisations proposées:</b>	from 2017-08-18 to 2017-09-05
<b>Promoteur du projet:</b>	Julian Aheme Trent University TSE, 1600 West Bank Drive Peterborough Ontario K9L 0G2 Canada Téléphone :: 7057481011x7887, Télécopieur ::

## **DÉTAILS**

### **Description non technique de la proposition de projet**

Anglais:	The proposed study will collect surface water from lakes north of Kimmirut, and around Pond Inlet and Iqaluit. Approximately 50 lakes will be randomly selected for sampling by helicopter north of Kimmirut and around Pond Inlet. In addition, 10 lakes have been selected for sampling around Iqaluit, with access by foot. All study sites will be located outside of Inuit Owed Land and Territorial Parks. All lake water samples will be analysed for major cations and anions, nutrients, trace metals, and mercury to assess the potential impacts of air pollution.
Français:	L'étude proposée recueillera des eaux de surface dans les lacs au nord de Kimmirut et autour de Pond Inlet et Iqaluit. Environ 50 lacs seront choisis au hasard pour l'échantillonnage par hélicoptère au nord de Kimmirut et autour de Pond Inlet. En outre, 10 lacs ont été sélectionnés pour l'échantillonnage autour d'Iqaluit, avec accès à pied. Tous les sites d'étude seront situés à l'extérieur des terres inuites et des parcs territoriaux inuits. Tous les échantillons d'eau du lac seront analysés pour les principaux cations et anions, nutriments, métaux traces et mercure afin d'évaluer les impacts potentiels de la pollution atmosphérique.
Inuktitut:	ᑕᑲᑦ wᐃᑕᑕ be ᓴᓴᑕᑕ ed ᑕᑎ ᐃᓴᑦᓴ ᑕᑲ he ᑕᑎᑕᑎᐱᑕ ᐃᓴᑕᑕᑕ of ᐅᑦ ᑕᑎᑕᑎᑎᑎᑎ. ᓴᑲᑕ ᐃᑕᑕched docᑕᑕᑕᑕ.

### **Personnel**

Personnel on site: 2
Days on site: 10
Total Person days: 20
Period of operation: from 2017-08-20 to 2017-08-30
Proposed term of operation: from 2017-08-18 to 2017-09-05

## Activités

### Activités

Emplacement	Type d'activité	Statut des terres	Historique du site	Site à valeur archéologique ou paléontologique	Proximité des collectivités les plus proches et de toute zone protégée
025N16	Sampling sites	Crown	There is no significant site history for any of the study sites. This is a regional survey of lakes, while some may have been sampled previously, they have been randomly sampled (stratified by lake size) in the current study. There are 10 study lakes in NTS grids 025N15 and 025N16.	No known archaeological/palaeontological value for sites in the current study (i.e., sites have not been selected based on their archaeological/palaeontological history).	Project personnel will be based at NRI, Iqaluit. Iqaluit Study Domain: NTS 025N15, 025N16. Nearest community is Iqaluit <25 km. All study sites in the Iqaluit study domain will be located outside of Inuit Owned Land and Territorial Parks. Study sites (10 lakes have been selected) will be sampled (collection of water sample) with site accessed by foot or ATV.
025M08	Sampling sites	Crown	There is no significant site history for any of the study sites. This is a regional survey of lakes, while some may have been sampled previously, they have been randomly sampled (stratified by lake size) in the current study.	No known archaeological/palaeontological value for sites in the current study (i.e., sites have not been selected based on their archaeological/palaeontological history).	Project personnel will be based at NRI, Iqaluit. Kimmirut Study Domain: NTS 025M06 and 025M08. Nearest community is Kimmirut <100 km. All study sites in the Kimmirut study domain will be located outside of Inuit Owned Land and Territorial Parks. Study sites (50 lakes have been selected) will be sampled (collection of water sample) with site accessed by helicopter. Flights are scheduled for August 29th and 30th, 2017. However, only one day may be necessary to sample lakes.
038B10	Sampling sites	Crown	There is no significant site history for any of the study sites. This is a regional survey of lakes, while some may have been sampled previously, they have been randomly sampled (stratified by lake size) in the current study.	No known archaeological/palaeontological value for sites in the current study (i.e., sites have not been selected based on their archaeological/palaeontological history).	Project personnel will be based at hotel accommodation in Pond Inlet. Pond Inlet Study Domain: NTS 038B10 and 038B11. Nearest community is Pond Inlet <100 km. All study sites in the Pond Inlet study domain will be located outside of Inuit Owned Land and Territorial Parks. Study sites (50 lakes have been selected) will be sampled (collection of water sample) with site accessed by helicopter (and where possible by foot). Flights are scheduled for August 22th and 23th, 2017. However, only

### Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Iqaluit	Jamal Shirley	Nunavut Research Institute and Nunavut Arctic College	2016-05-17
Pond Inlet	Shelly Elverum	Northern Coordinator at Ikaarvik Project	2016-10-16

### Autorisations

#### Indiquez les zones dans lesquelles le projet est situé

North Baffin  
South Baffin

### Autorisations

Organisme de régulation	Description des autorisations	État actuel	Date de l'émission/de la	Date d'échéance
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			<b>demande</b>	
Gouvernement du Nunavut, ministère de l'Environnement	Wildlife Research Permit	Active	2017-05-26	2017-09-01
Autre	Nunavut Planning Commission	Active	2017-05-12	2017-09-01
Gouvernement du Nunavut, Institut de recherche du Nunavut	Reviewed by NPC, pending review by NIRB	Applied, Decision Pending		



	<b>PHYSICAL</b>	Designated environment:	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique	Surface and bedrock geo	Sediment and soil quality	Tidal processes and bath	Air quality	Noise levels	<b>BIOLOGICAL</b>	Vegetation	Wildlife, including habit:	Birds, including habitat :	Aquatic species, incl. hab	Wildlife protected areas	<b>SOCIO - ECONOM</b>	Archaeological and cultu	Employment	Community wellness	Community infrastru	Human health
<b>Construction</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Exploitation</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Désaffectation</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(P = Positive, N = Négative et non gérable, M = Négative et gérable, U = Inconnue)

Project Map

