



NIRB Uuktuutinga Ihivriughikhamut #125431

Carboniferous Basins in Svalbard, Canada and the Barents Sea (CBS2)

Uuktuutinga Qanurittuq: New

Havaap Qanurittunia: Scientific Research

Uuktuutinga Ublua: 1/8/2019 11:28:28 AM

Period of operation: from 0001-01-01 to 0001-01-01

Piumayaat Angirutinga: from 0001-01-01 to 0001-01-01

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QANURITTUT

Tukihiannaqtunik havaariya uyumayumik uqauhiuyun

Qablunaatitut: Project titleCarboniferous Basins in Svalbard, Canada and the Barents Sea Researchers names and affiliationsLeader: Jean-Baptiste Koehl, University of Calgary, Calgary, Canada; University of Oslo, Oslo, NorwayOne field assistant to be named.Project locationThe study area is located on the Grinnell Peninsula, in Northwest Devon Island, along the Lyall River.TimeframeThree to four weeks between June 15th and August 15th 2019.Project descriptionPurposeThe project aims at studying 360-325 million years old sedimentary rocks in NW Devon Island. The project will investigate the context of deposition of these rocks and compare them to analogous rocks in Svalbard and the Barents Sea (Norway).Goals and objectivesThe project will test three main hypotheses:1. Testing that the studied rocks were deposited within a large depression bounded by large cracks.2. Testing that these rocks deposited while the tectonic plates were diverging.3. Testing the influence of adjacent basement rocks on the deposition and deformation in the studied rocks.Methods of transportationTwin Otter from Resolute Bay to the Grinnell Peninsula or strip designated by the PCSP. If needed, helicopter transportation from Twin Otter landing site to study area. Daily walks from the campsite to the outcrops.Structures to be erectedTwo personal tents will be erected at the campsite.Restoration/abandonment plansThe camp site will be restored to its original conditions and photos will be taken by the field participants prior and after abandonment following the legislation in place. All unburnt waste will be bagged and transported back to Resolute Bay.MethodologyCollection protocol and mechanismAbout 70 small rock samples (less than 0.5 kg each) will be collected for geochemical, structural, microscopic, and geochronological analyses. The samples will be collected using a geological hammer and a chisel and will be catalogued and stored at the University of Calgary. No fossil will be collected.Use of dataThe data will be published in Gold Open Access peer-reviewed scientific journals and be freely accessible to anyone who wishes to use them. The data will also be accessible on repositories at the University of Calgary.ReportingSix to eight peer-reviewed articles and two to three popular science articles will result from this project. The results will be disseminated through international and specialized scientific conferences and popular science events. Report to the communities and the media will be provided upon request.

Uiviiitut: Titre du projet Basins Carbonifères au Svalbard, Canada et en Mer de Barents Noms des chercheurs et affiliations Leader : Jean-Baptiste Koehl, Université de Calgary, Calgary, Canada ; Université d'Oslo, Oslo, Norvège Un assistant de camp de terrain à être nommé. Localisation du projet La zone d'étude est située sur la Péninsule de Grinnell, au nord-ouest de l'île Devon, proche de la Rivière Lyall. Agenda Trois à quatre semaines entre le 15 juin et 15 août 2019. Description du projet Objet de recherche Le projet est une étude de roches sédimentaires vieilles de 360-325 million d'années sur l'île Devon, au nord-ouest. Le projet étudiera le contexte de déposition de ces roches et les comparera à des roches similaires au Svalbard et en Mer de Barents (Norvège). Buts et objectifs Le projet testera trois hypothèses principales : 1. Tester que les roches étudiées ont été déposées dans une large dépression limitées par de larges fractures. 2. Tester que ces roches ont été déposées pendant que les plaques tectoniques étaient en divergence. 3. Tester l'influence d'adjacentes roches de socle sur la déposition et déformation des roches étudiées. Méthodes de transport Twin Otter depuis la baie Resolute à la Péninsule de Grinnell ou zone désignée par le PCSP. Si besoin, transport en hélicoptère depuis la zone d'atterrissage du Twin Otter à la zone d'étude. Marches journalières depuis le camp jusqu'aux affleurements. Structures à être érigées Deux tentes personnelles vont être dressées sur la zone du camp. Plans de restauration et d'abandonnement Le camp sera restauré dans ces conditions originales et des photos seront prises par les participants avant et après abandonnement suivant la législation en place. Tout déchet non-brûlé sera placé dans un sac et transporté à la baie Resolute. Méthode Protocole d'échantillonnage Près de 70 échantillons de roches (de moins de 0.5 kg chacun) seront prélevés pour analyses géochimiques, structurelles, microscopiques, and géochronologiques. Les échantillons seront prélevés à l'aide d'un marteau géologique et d'un burin et seront catalogués et stockés à l'Université de Calgary. Aucun fossile ne sera prélevé. Utilisation des données Les données seront publiées dans des journaux scientifiques Gold Open Access et seront accessibles gratuitement à quiconque souhaitera les utiliser. Les données seront aussi accessibles depuis le dépôt informatique de l'Université de Calgary. Compte rendu De ce projet résulteront entre six et huit articles scientifiques et entre deux et trois articles de vulgarisation. Les résultats seront communiqués à des conférences internationales et spécialisées et à des événements de vulgarisation scientifique. Un compte rendu sera transmis aux communautés et aux media sur requête.

[illegible]

Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunannga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannguqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtaliyainnit nuna
Grinnell Peninsula, study of rock outcrops of the Emma Fiord Formation.	Camp	Crown	None.	None.	250 km from Resolute Bay.
Grinnell Peninsula, study of rock outcrops of the Emma Fiord Formation.	Researching	Crown	None.	None.	250 km from Resolute Bay.
Grinnell Peninsula, study of rock outcrops of the Emma Fiord Formation.	Sampling sites	Crown	None.	None.	250 km from Resolute Bay.

Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigiyaungmata
Qausuittuq	Jodi MacGregor	Polar Continental Shelf Program	2018-10-24

Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

North Baffin

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Nunavunmi Ihivriuqniqmut Timiqutigiyanga	Scientific Research License	Applied, Decision Pending		
Nunavut Imaligiyyit Katimayit	Application for use without a Water License	Applied, Decision Pending		
Alaanut	Nunavut Planning Commission Conformity	Active	2018-12-07	
Alaanut	Nunavut Impact Review Board Screening	Applied, Decision Pending		

Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Air	Twin Otter and/or Helicopter	

Project accomodation types

Temporary Camp

Ihuaqutivaluin Atuqtauyukhan

Hanalrutit atuqtaunahuat (ukuallu ikuutat, pampiutainnik, tingmitinik, akhaluutinik, hunaluuniit)

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Aircraft	1	20*16*6	Transportation of two field participants between Resolute Bay and the study area in Devon Island in Twin Otter.
Aircraft	1	11*11*4	If needed, transportation of he two participants by helicopter (Astar) from the Twin Otter landing site to the camp site.

Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Propane	fuel	1	15	15	Liters	Cooking
iosol	fuel	1	4	4	Liters	Cooking
Gasoline	fuel	1	15	15	Liters	Burn waste

Imaqmik Aturninnga

Ubluq qanuraaluk (m3)	Aturumayain imavaluin utiqittagaani qanuq	Atulirumayain imavaluin utiqittagani humi
0	Plastic containers.	Nearby snow patches and Lyall River.

Iqqakuq

Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Berm	Ikulalaaqtun iqqakuuvaluin	8 kg	Burn as much as possible.	Unburned waste will be bagged in waterprrof bags and container, and will be brought back to Resolute Bay.
Berm	Qirnarivyaktuq imaq	13 liters	In dugged out pits.	Pits to be backfilled.
Berm	Ikulalimanngittun iqqakuuvaluin	8 kg	Crushed, bagged, and stored in a waterproof container.	To be brought back to Resolute Bay upon completion of fieldwork.
Berm	Anaagun (inuin anaaguin)	8 kg	Burned on site as much as possible.	Unburned waste will be Sealed in waterproof bags and container, and will be brought back to Resolute Bay.

Avatiliriniqmut Ayurhautingit:

The project participants will establish a temporary camp of three tents if possible away from any fauna and flora. The site will be restored to its original condition prior to departure. Small rock samples will be taken in the field. To mitigate the negative impact on surface and bedrock geology, only small (hand-sized) specimen and loose blocks will be taken.

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

Qanurittuq Ittunik Avatinga: Avatingalluanga

Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga

Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga

Miscellaneous Project Information

The camp will be set in areas without vegetation and the camp site will be restored to its original condition. The field participants will carry at all time HF transceivers and a satellite phone and communicate their plans to basecamp in Resolute Bay twice a day. Waste will be burned, bagged, sealed, and brought back to Resolute Bay.

Naunaiyainiq ukuninnga Ayurhautingit unalu Piumayaat Ikikliyuumiutinahuarutit

Rock samples will be taken from outcrop of the Emma Fiord Formation. To mitigate the impact on the bedrock only small (hand-sized) samples will be taken and, if possible, as loose blocks.

Tamatkiumayunik Ihuikgutivaktunik

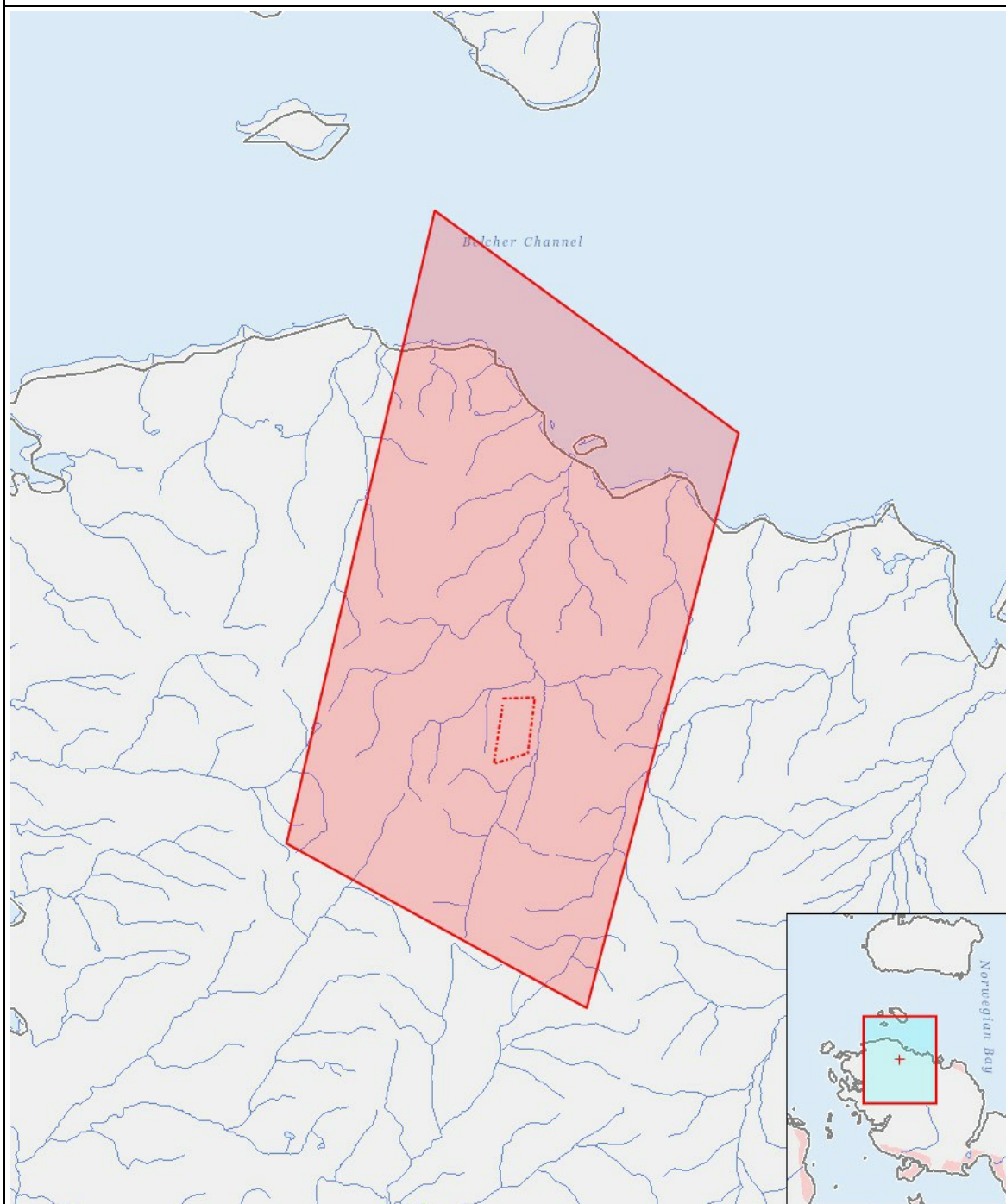
Impacts

Ilitariyauniq Avatiliriniqmut Ayurhautingit

		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
Havakvinga																										
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Aulapkaininnga																										
Sampling sites		-	-	-	-	-	-	-	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Piiqtauniq																										
-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(P = Nakuuyuq, N = Nakuungittut unalu mikhilimaittuq, M = Nakuungittut unalu mikhittaaqtuq, U = Naluyauyuq)

Havaariyauyukhamut Nayugaa



List of Project Geometries

- | | | |
|---|----------|---|
| 1 | polygon | Grinnell Peninsula, study of rock outcrops of the Emma Fiord Formation. |
| 2 | polyline | Temporary camp location |