



መጀጀ ፈጀብ ዘጀጀ ንጀጀ ቁጀጀ ቀጀጀ የጀጀ ደጀጀ #125771

## Community Geological Mapping of the Kivalliq Corridor

ር መጀጀ  
ና መጀጀ

New

አ መጀጀ  
ና መጀጀ

Scientific Research

የ መጀጀ  
ር መጀጀ

2/9/2023 1:10:10 PM

Period of operation:

from 0001-01-01 to 0001-01-01

ቤ መጀጀ  
ር መጀጀ

አ መጀጀ  
ና መጀጀ  
Geological Survey of Canada, Mary Sanborn-Barrie  
Geological Survey of Canada, Natural Resources Canada  
490-601 Booth Street  
Ottawa Ontario K1A0E8  
Canada  
የ መጀጀ  
ር መጀጀ: 343-543-4648, ጥቅምት: 343-543-4648

‘**બોધિંદુઃહ**’ અને ‘**બોધિંદુઃસ**’

connaissances. Ils visent à renforcer la capacité des collectivités du corridor Churchill-Kivalliq à saisir les opportunités et les défis géoscientifiques liés aux développements d'infrastructures proposés dans cette région. La méthodologie de terrain en 2023 impliquera la planification et l'exécution d'une cartographie communautaire assistée par hélicoptère à partir de Whale Cove (2 semaines) et d'Arviat (3 semaines). Des cartes de compilation et des images Landsat combinées à des données aéromagnétiques seront analysées avec les membres de la communauté afin de concevoir une stratégie de vérification au sol des anomalies géophysiques et de nouvelle collecte de données. La cartographie du socle rocheux sera assistée par des habitants du Nord intéressés, en mettant l'accent sur les jeunes de 20 à 30 ans, les sculpteurs et les prospecteurs qui se verront offrir des opportunités de rotation en tant qu'assistants de terrain rémunérés. La cartographie impliquera 10 jours (30 heures) de soutien héliporté depuis Whale Cove (~2-12 juillet 2023) et 10 jours (30 heures) depuis Arviat (~18-30 juillet 2023). Tout l'équipement nécessaire rentrera dans un petit sac à dos fourni à tous les assistants de terrain avec un sac à lunch, et comprendra une loupe, une boussole, un stylo magnétique, un marteau (pour casser un échantillon frais) et un appareil photo numérique. Les observations seront enregistrées sur de petits ordinateurs portables avec GPS Bluetooth, téléchargées quotidiennement et tracées sur des cartes pour interprétation sur une nouvelle carte du substratum rocheux, sur laquelle des assistants locaux contribueront aux auteurs.

Inuinnaqtun: Please see Inuktitut description (above) and attached as a separate file

## Personnel

Personnel on site: 3

Days on site: 35

Total Person days: 105

Operations Phase: from 2023-06-26 to 2023-08-02

፩ ጥ	፩ የልማና ስርጓዣ ቅጽ አንድ ማስረጃ መሆኑን ማረጋገጫ	የልማና ስርጓዣ መሆኑን ማረጋገጫ	የልማና ስርጓዣ መሆኑን ማረጋገጫ	የልማና ስርጓዣ መሆኑን ማረጋገጫ	የልማና ስርጓዣ መሆኑን ማረጋገጫ
region of proposed bedrock mapping	Researching	Inuit Owned Sub-Surface Lands	includes Crown and IOL. Includes mixed use and limited use (caribou calving grounds)	region likely contains historical markers, inuksuit, hunting and trapping sites that will be left undisturbed	area includes the municipalities of Whale Cove and Arviat
proposed northern fuel cache (8 sealed drums)	Fuel and chemical storage	Inuit Owned Sub-Surface Lands	mixed use	none	152 km WSW of Whale Cove
proposed southern fuel cache (8 sealed drums)	Fuel and chemical storage	Crown	mixed use	none	107 km west of Arviat

ወደመስክር ደንብ በርሃን መሰረት ከሚከተሉ የአውራጭ ስልጣን መመሪያ የሚያስፈልግ ይችላል

መመሪያ	አስተዳደር	በጀትነት	የመመሪያ ስም
ቤቶች ማዕከል	Luis Manzo	Kivalliq Inuit Association	2022-11-21
አዲስ አበባ	Steve England SAO	Hamlet Office	2022-11-24
አዲስ አበባ	Mike Beauregard	Government of Nunavut Economic Development and Transportation	2022-11-24
አዲስ አበባ	Nicole Issakiark	Arviat Hunters' & Trappers	2022-11-24
አዲስ አበባ	Chi-Chi Arinze, Principal & Lyndsay Hines, Guidance Councillor	John Amaguluk High School	2022-11-25
አዲስ አበባ	Steve England, Hamlet Office	Public Community Meeting with Interpreter	2022-11-25
በየኋና የፌዴራል	Brian Fleming, SAO	Hamlet Office	2022-11-28
በየኋና የፌዴራል	Eva Angoo	Issuark HTO	2022-11-28
በየኋና የፌዴራል	Peter, Science teacher	Inuglak School, Whale Cove	2022-11-29



ՀԱՅՈՒԹԻՒՆ ԱԺՅԱՌՈՒՅԻ ԳՐԱԿԱՐԱԿՈՒՅՈՒՆ

መጥበቃዎች ለመፈጸም ለማስፈጸም በበኩል

Kivalliq

ՀԱՅԻ ՔՐԴԱԿԱՆ ՎՐԱՄԱՆ ՀԱՅՈՒԹՅՈՒՆ

<p>and democratic manner, Inuit of the Kivalliq Region in the development, protection, administration and advancement of their rights and benefits as an aboriginal people, as well as to promote their economic, social, political and cultural well-being through succeeding generations. The KIA's goals include:</p> <ol style="list-style-type: none"> <li>1) to preserve Inuit heritage, culture &amp; language;</li> <li>2) to manage Inuit-owned-lands in the region and provide information to and consult with land claims beneficiaries on land use;</li> <li>3) to protect Arctic Wildlife &amp; environment, thereby preserving traditional uses for current and future generations; and</li> <li>4) to assist Inuit in the Kivalliq region in training opportunities.</li> </ol>			
--	--	--	--

#### Project transportation types

Transportation Type	Type of Use	Length of Use
Air	helicopter transport from the airport for 10 days, returning each evening	
Land	foot traverse and ATV travel in the community	

## **Project accomodation types**

መመሪያዎች

በበኩረምናይንደግኝነት የኩረምናይንደግኝነት የኩረምናይንደግኝነት የኩረምናይንደግኝነት

				Arviat to enhance flexibility, ensure safety
--	--	--	--	--

### ΔL<sup>9b</sup> ΔC<sup>9b</sup>C>L<sup>9b</sup>C<sup>9b</sup>

▷ <sup>c</sup> ▷ C <sup>9b</sup> ▷C <sup>9b</sup> C>σ▷ <sup>9b</sup> C <sup>9b</sup>	▷ <sup>b</sup> ▷ <sup>b</sup> ▷Γ <sup>9b</sup> C <sup>9b</sup> C <sup>9b</sup> σ▷ <sup>9b</sup> C <sup>9b</sup>	▷ <sup>a</sup> ▷ <sup>a</sup> ▷Γ <sup>9b</sup> C <sup>9b</sup> C <sup>9b</sup> σ▷ <sup>9b</sup> C <sup>9b</sup>
0	municipal tapwater	Tavani Inn, Whale Cove; NRI bunkhouse, Arviat

## Q<sup>b</sup>C<sup>j</sup>c

Q<sup>b</sup>C<sup>j</sup>c n-s Q<sup>a</sup>s<sup>b</sup>

Λε-α-Δε-τη-θε-λε-γε	ε-β-α-Δ-ε-γ-ε	ε-β-α-θε-ε-θε-γε	ε-β-α-θε	κ-α-λ-ε-κ-θε-θε-θε-θε
Information is not available				

## ΑΕΩΓΤΔC<sup>a</sup>c<sup>b</sup>c Α<sup>b</sup>α<sup>a</sup>CD<sup>b</sup>L<sup>c</sup>

Mapping will involve examination and documentation of exposed bedrock within the Kivalliq region west of Whale Cove and Arviat. Coverage will be via low-impact foot traverses by a 2-3 person team comprising the project proponent (Mary Sanborn-Barrie) and 1 or 2 community members. Transport to the exposures will be by helicopter which will return to Whale Cove (July 2-14) or Arviat (July 16-26) airport each evening. All equipment to be used will fit into a small backpack to be provided to all field assistants along with a bagged lunch. Examination of rock exposures is done using a hand lens, structural compass for measurements, pen magnet, hammer (to break off a fresh sample), and digital camera. Observations and interpretations will be recorded on small, hand-held computers with bluetooth GPS. \*\* No camps, buildings, ditches, trenches, dams, roads or other structures will be constructed \*\* No trace of our mapping will be detectable (very low impact). Positive impacts include employment, training and mentoring, increased knowledge of how the land evolved over time, so that land-use decisions are founded also on understanding of geological history of the region.

# **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 11: Municipal Development

Please see the attached Detailed Plan

କେବଳ ଏହାରେ ମଧ୍ୟ ପରିପାଳନ କରିବାକୁ ପାଇଁ ଆଶିଷ ଦିଆଯାଇଛି।

Людмила Абрамова: Абрамова Людмила

July 1 – August 2, 2023 activities are community-based, and include helicopter-assisted mapping carried out by interested residents from the central Nunavut hamlet of Whale Cove (2-weeks) and the lower Nunavut community of Arviat (3-weeks). Compilation maps and Landsat imagery combined with aeromagnetic data will be analyzed with community members. Interested Northerners, with a focus on youth 20-30 years, carvers and prospectors will be provided rotational opportunities as paid field assistants for training and mentoring in geoscience.

## Miscellaneous Project Information

Many details and relevant contact information are provided in the attached Detailed Plan with Waste Management and Spill Plan Contingency, with mitigation measures

Please see the attached Detailed Plan with Waste Management & Spill Contingency Plan with mitigation measures

## Cumulative Effects

There will be no cumulative effects from this mapping activity, please refer to the attached Detailed Plan with Waste Management & Spill Contingency Plan with mitigation measures



## Impacts

የጋዥል ተስፋኑ ስርዕስ አድራሻ ተስፋኑ ስርዕስ

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	

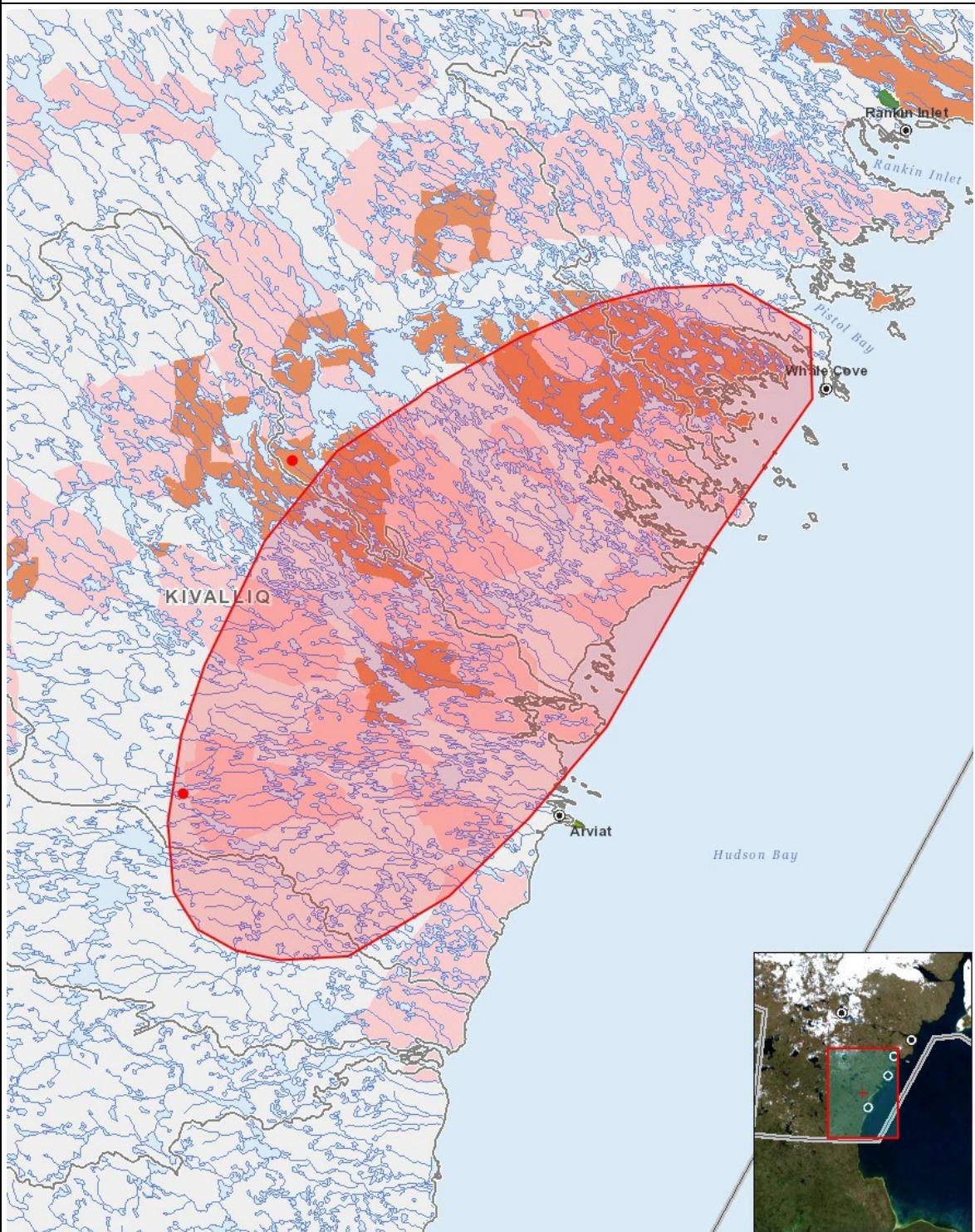
፭፻፯፭

## Researching

ΔΣ<sup>c</sup> Π  $\approx$  σ<sup>96</sup>

( $P = \{P_1, P_2, \dots, P_n\}$ ,  $N = \{N_1, N_2, \dots, N_m\}$ ,  $C = \{C_1, C_2, \dots, C_k\}$ ,  $M = \{M_1, M_2, \dots, M_l\}$ )

ወጥረሱ አርናስኬታዊ



## List of Project Geometries

- |   |         |   |
|---|---------|---|
| 1 | polygon | region of proposed bedrock mapping            |
| 2 | point   | proposed northern fuel cache (8 sealed drums) |
| 3 | point   | proposed southern fuel cache (8 sealed drums) |