2012

Nunatta Katersugaasivia Allagaateqarfialu (NKA) – Greenland National Museum & Archives

Mikkel Myrup, curator

# [ISUA PROJECT – ARCHAEOLOGY 2012]

Archaeological survey conducted on upper sections of proposed slurry pipeline/access road routing between the project's harbour and mining facilities.

#### Introduction

The Greenland National Museum & Archives (NKA) has been conducting archaeological surveys related to the ISUA Iron Ore project (the project) over three seasons in 2008, 2009 and 2011 (see 2008 and 2009 reports for elucidation on the area's general cultural history and archaeology here: http://kulturi.org/en/reports.html).

In 2012 the NKA surveyed the upper appr. 50 kms of the pipeline/access road routing. The 2012 NKA survey team consisted of Bo Albrechtsen (curator), Fuuja Larsen (museum technician), Lasse Meyer (student) and Mikkel Myrup (curator and author of this report).

The NKA was informed by London Mining Plc (LM) that regarding the construction of the pipeline/access road, different methods of gathering the building material has to be applied. On the lower sections the building material is to be quarried from designated quarry zones and in the upper sections building material will be surface collected from a zone around the pipeline/access road spanning several hundreds of metres to each side of this.

Transport to and from the survey area and across the meltwater rivers was carried out with the aid of the crew of an Airgreenland Bell 212.

The area in which this archaeological survey is conducted can be described as an inland area. The archaeology of this type of area, in the south western part of Greenland, consists predominantly of structures related to the hunt of caribou and the processing (drying) of its meat.

#### Methodological considerations

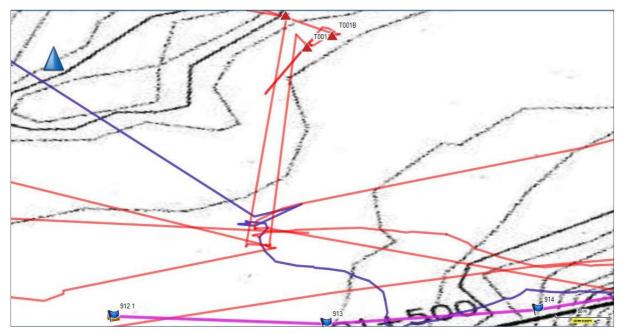
Detailed maps regarding project infrastructure design has been made available to the NKA. The slurry pipeline/access road design and its planned route is illustrated in 1:5000 scale maps with two meter curves. These maps were scanned and georeferenced through Google Earth and used in a handheld GPS. This method of georeferencing scanned maps does pose some major problems regarding precision. Therefore, with the aid of project designer SNC-Lavalin and ASIAQ, a set of coordinates (every 100th meter) was extracted from the project design files, providing the survey team with reliable geo-data regarding the position of the planned slurry pipeline/access road. The lack of geographical precision in the scanned 1:5000 maps can be seen in the illustrations showing the archaeological features below. The pink line represents the position of the pipeline/access road according to the coordinates provided by SNC-Lavalin/ASIAQ and this line therefore serves as reference in relation to the positions of the recorded archaeological structures. The scanned map reveals the lack of precision when line representing pipeline/road is compared to the pink line overlay.

To cover a 100-140 meter corridor the four person survey team walked transects with 25-35 meters between them. The two persons walking the extremes of this corridor controlled the direction with a GPS each. Whenever archaeological structures were observed a position

was recorded, a determination of structure type and probable function of the locality was made and photographic documentation secured. The locality position shown below is from the structure closest to the pipeline/access road. Position datum: WGS84, UTM 22w.

#### Results

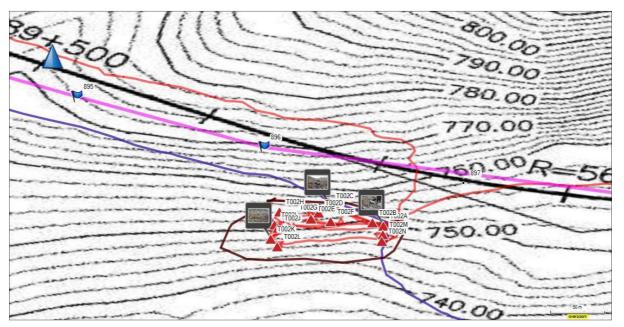
The archaeological survey of the slurry pipeline/access road routing revealed a number of locations with anthropogenic structures.



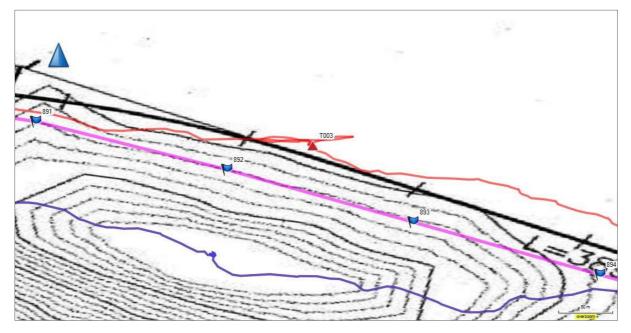
T001 (22w 545319/7231202)

Three shooting blinds appr. 250 m N of the pipeline/access road.

#### T002 (22w 543850/7231378)



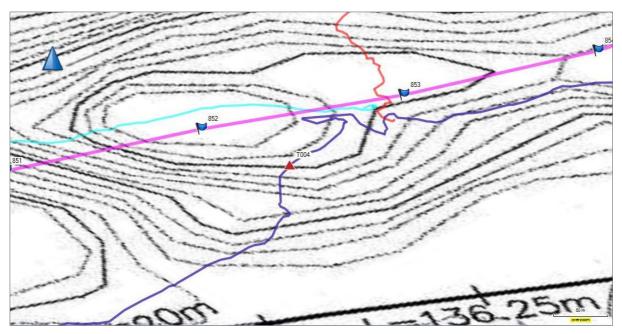
A relatively large caribou hunting base camp appr. 50 m S of the pipeline/access road. A) Cairn (multiple stones), B) Shooting blind (multiple stones), C) Cairn (multiple stones), D) Hearth, E) Meat cache, F) Two meat caches, G) Semi-subterranean dwelling w. meat cache, H) Look-out/hunter's bed, I) Rectangular tent house, J) Tent ring, K) Tent ring, L) Tent ring, L) Tent ring, M) Shooting blind, N) Hearth.



T003 (22w 543505/7231640)

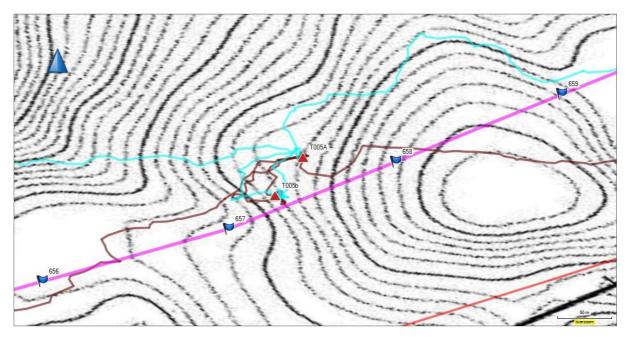
Rectangular tent ring appr. 50 m N of the pipeline/access road.

## **T004** (22w 540450/7229455)



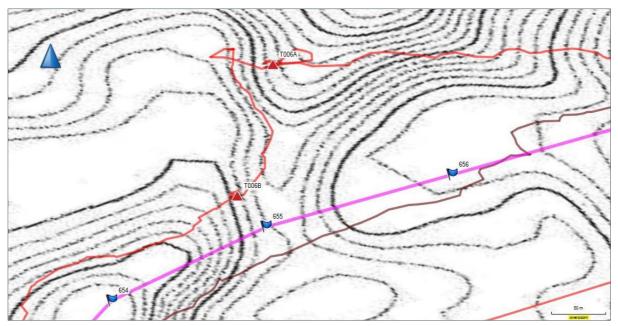
Hunter's bed appr. 50 m S of the pipeline/access road.

## **T005** (22w 526859/7219347)



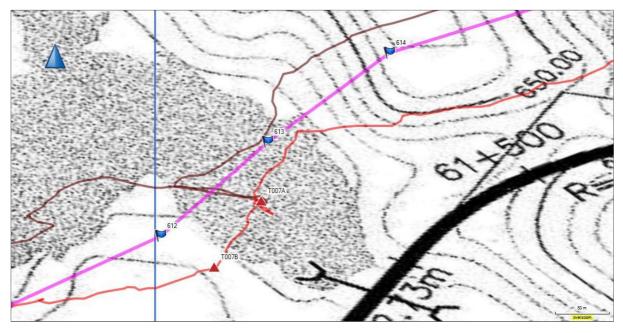
Forward camp N of pipeline/access road. A) Circular stone structure, B) Rock shelter.

## T006 (22w 526649/7219247)



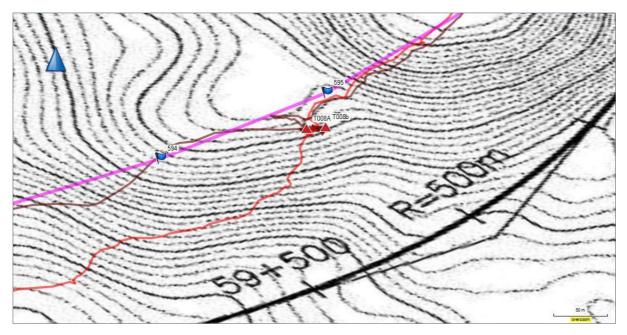
Forward camp N of pipeline/access road. A) Hunter's bed, B) Hunter's bed.

## T007 (22w 524309/7216321)

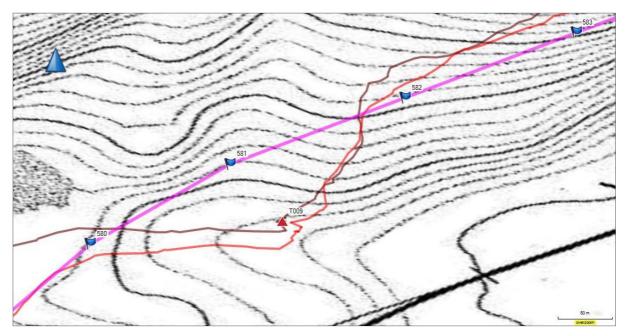


Hunting system 30-40 m SE of pipeline/access road. A) Shooting blind, B) Shooting blind.

## **T008** (22w 522883/7215438)



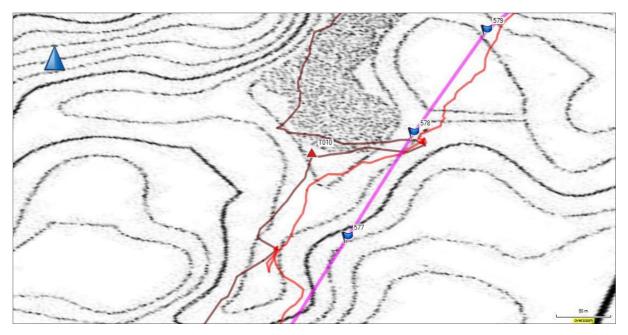
Forward camp appr. 30 m S of pipeline/access road. A) Two hunter's beds, B) Meat cache.



**T009** (22w 521890/7214492)

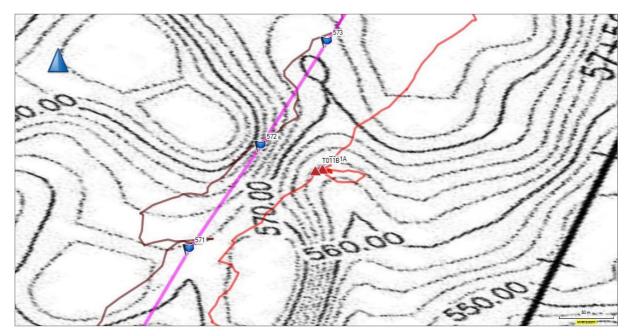
Shooting blind appr. 80 m S of pipeline/access road.

## **T010** (22w 521667/7214273)



Shooting blind appr. 60 m NW of pipeline/access road.

## **T011** (22w 521558/7213698)



Forward camp appr. 50 m E of pipeline/access road. A) Hunter's bed, B) Meat cache.

#### Recommendations

The archaeological surveys that have been conducted over four seasons (2008, 2009, 2011 and 2012) has revealed a number of anthropogenic structures which are protected in accordance with Greenlandic legislation (the Antiquities Act - Eqqissisimatitsisarneq aamma allatigut kulturikkut eriagisassanik kulturikkut kingornussatut illersuineq pillugu <u>Inatsisartut Inatsisaat nr . 11, 19. maj 2010-meersoq.</u>)

The NKA recommends that a dialogue between London Mining Plc and Nunatta Katersugaasivia Allagaateqarfialu/the Greenland National Museum (NKA), regarding as how to approach the issue of preserving the cultural heritage affected by the project, is initiated before the beginning of the construction phase. It is the opinion of the NKA that the construction of the slurry pipeline and access road, as well as the mining and harbour facilities, can be accomplished without damaging the bulk of the recorded archaeological stuctures.