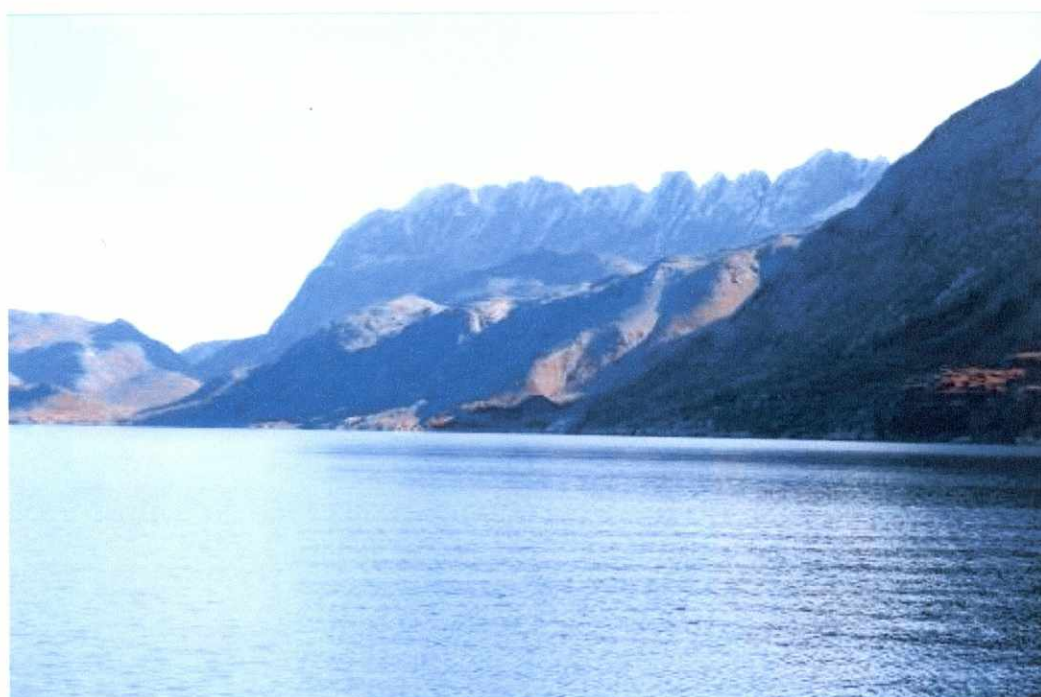


Kangerluarsuk 2007

Archaeological Survey



Report by
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Nuuk, Nov. 2007

Archaeological Investigations in advance of mining activities on the Qaqortoq Peninsula, South Greenland.

Abstract

In September 2007 The National Museum of Greenland investigated areas of interest in advance of mining activities on the Qaqortoq Peninsula, South Greenland. During a research period of two weeks 9 new sites were discovered and documented and 7 already known sites were revisited and surveyed using d-GPS. The sites found are from the Norse as well as the Thule-Inuit cultures, dating between the 10th and 19th C. Several of the sites surveyed holds great potential for further investigation. Some sites are certainly threatened by the planned mining while destructive building activity may very well be avoided on most sites.

1.0 Introduction

From the 12th to the 26th of September 2007 surveys were carried out in several areas of the Qaqortoq Peninsula in advance of planned mining activities at kringlerne in the bottom of Kangerluarsuk. The work was done by Niels Algreen Møller on behalf of Nunatta Katersugaasivia Allagaateqarfialu (NKA), The National Museum and Archives of Greenland. The work was financed by the mining company, Tanbreez. All records of the survey including digital photography and GPS-registrations are kept at the National Museum of Greenland, NKA. The GPS measurements from both the handheld and the d-GPS are kept in their own software formats as well as in Mapinfo and AutoCAD formats.

Copenhagen 13/11-2007
Niels Algreen Møller

1.1 Culture history of South Greenland

The earliest evidence of human presence in South Greenland comes from the Greenlandic Dorset-culture. The evidence of this Paleo-Inuit culture is mainly found in the present day high tide zones as artefacts washed out by waves. Only a single Dorset site has been excavated in South Greenland.

From the disappearance of the Dorset culture around 200 AD, South Greenland is apparently uninhabited by humans until the arrival of the Norse dated historically to the year 986.

The Norse has their main occupation in the inner fiord areas of South Greenland known in medieval times as "The Eastern Settlement". More than 450 sites have so far been discovered in South Greenland bearing testament to the massive occupation of settlement in spite of the relatively harsh conditions the landscape offers a farming community. Even though much work has been done on the investigation of the Norse, intensive surveys starting back in 1880, still many questions trouble the scholars. With the abandonment of the settlements, the Eastern Settlement abandoned in the middle of the 15th C, the area of South Greenland was soon reoccupied by the Thule-Inuit.

The first sporadic appearance of the Thule-Inuit in South Greenland is seen in the areas between Nanortalik and Cape Farewell. A few sites are dated as early as the late 13th /early 14th C. But the first major presence of the Thule-Inuit does not appear until after the abandonment of the Norse Eastern settlement. A major expansion of the Thule-Inuit into South Greenland seems to appear during the later part of the little ice age. From the 18th C onwards the Thule-culture is firmly established in the area.

1.2 The area of investigation

The outermost part of the Qaqortoq Peninsula is dominated by a comparatively gentle mountainous landscape. Nowhere does the height of the mountains exceed 500 meters. On the coast crescent-shaped valleys made settlement possible for the Norse Farmers, while natural resources especially seal and to some extent fish, favoured the Thule-Inuit settlements on the coasts. Especially on the western coast of the peninsula, where fish i.e. huge amounts of cod, which are still very attractive today, seem to have attracted the Thule-Inuit in the autumn months. The narrow strait just between the mainland of the Qaqortoq Peninsula and a small island just west of the peninsula probably favours seal hunting and has attracted the Thule-Inuit from whom several sites have been discovered in the coastal foreland next to the strait. Several valleys in the backcountry up into the mountains have quite lush vegetation. Long stretches of coast are quite bare and unfavourable to human settlement. Even though, the inland areas are almost completely devoid of any prehistoric structures. These are all concentrated on coastal stretches with potentially rich resources. In some areas, such as the area of the "Central Plant Option, the vegetation is very sparse. This is probably due to the catabatic winds. These winds are very frequent in the area, and wind erosion has in many parts barred rubble and bedrock. In between these wind-eroded and wind-dominated areas small patches of terrain with lush vegetation can be found in small valleys or canyons protected from the wind by the surrounding terrain.

1.3 Previous investigations

The first systematic archaeological investigations in the area were carried out in 1880 by First Lieutenant Holm. He found several Norse sites also on the Qaqortoq Peninsula. His initial work was followed by another Lieutenant, Daniel Bruun in 1894. The next major surveys were carried out by a teacher, Ove Bak in the late 1960s and early 1970s. He investigated major parts of the eastern settlement, and found several of the sites in question in this report. In the same years the National Museum of Denmark, then the prime antiquarian authority of Greenland, carried out surveys triggered by the expanding sheep farming in the area.

The area in Kangerluarsuk was investigated by the National Museum of Greenland, NKA when the Greenlandic agency for minerals first started investigating the possibilities of mining eudialyt in this area. During 1989 a team led by Hans Kapel surveyed the innermost part of the Kangerluarsuk. (Kapel 1989).

2.0 Method

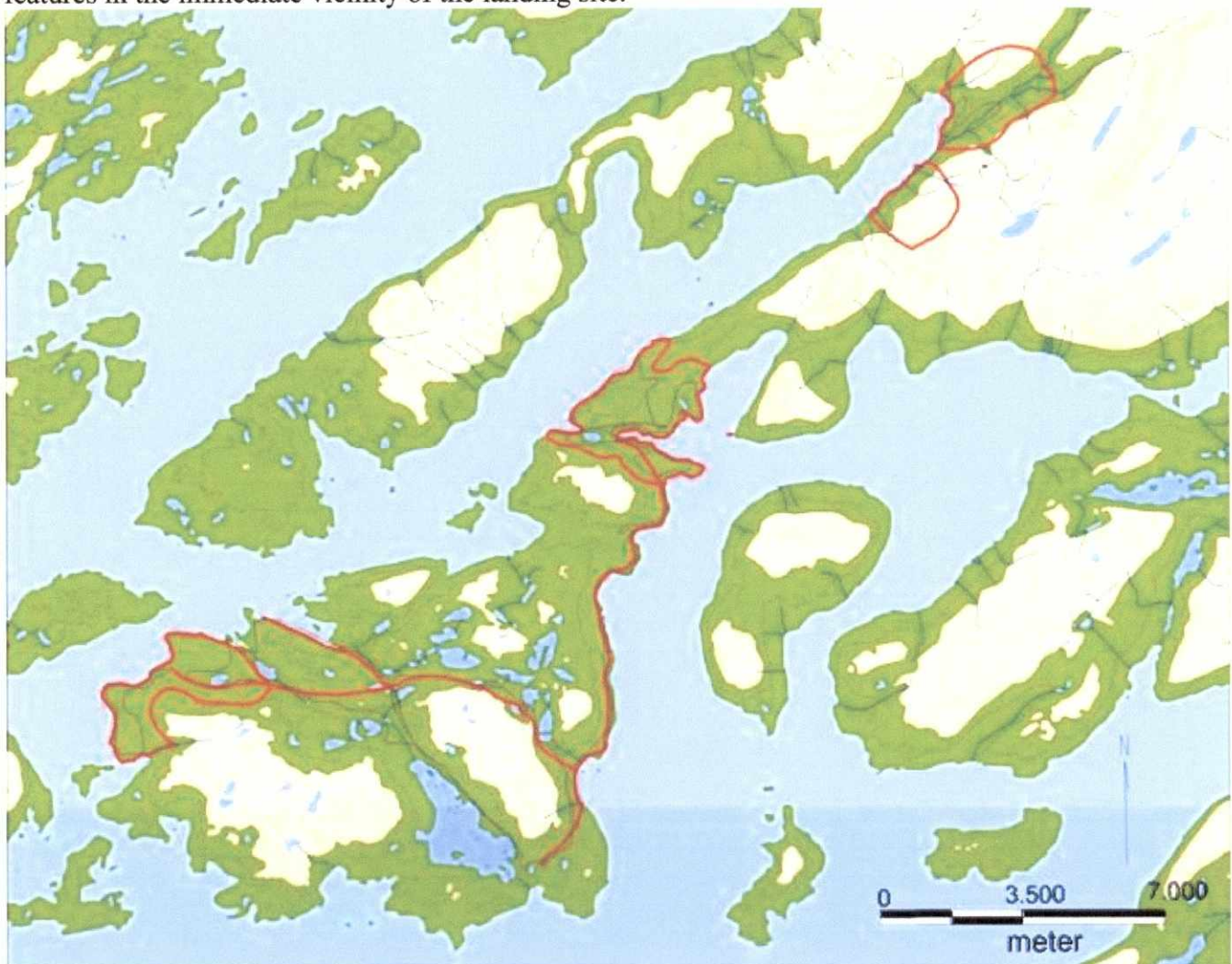
The work presented here was carried out by one man during a two week period. Qaqortoq functioned as the base of operations. From here the areas under investigation was reaches by walking or sailing. Sites already known were revisited and surveyed with a differential GPS. Some local inhabitants of Qaqortoq with knowledge of the terrain were interviewed for their knowledge of sites and terrain, but the work was mainly concentrated on surveying the terrain. All sites found where measured with GPS.

During days with high winds the terrain with the projected roads and the inland areas were surveyed by walking the terrain. On days with calm weather the areas further afield, such as the Northern Plant Option and mine site, was reached by boat and then surveyed by walking.

2.1 Survey

The survey was carried out primarily by walking the terrain. The comparatively limited amount of time spent in the field did not allow for comprehensive formalised surveys. The terrain was covered by walking the investigation areas in alternate routes, searching out specific points of interest in the terrain i.e. outlets of streams, coastal foreland next to areas with flat bedrock and south facing crescent-shaped valleys.

When opportunity presented itself the terrain was surveyed with binoculars from high ground to cover the landscape as best as possible. Points of interest found with binoculars such as changes in vegetation cover, were then searched independently by walking the particular area. In some of the coastal stretches, surveying from the sea was carried out as well, searching for good landing spots and then looking for features in the immediate vicinity of the landing site.



Areas surveyed. Black lines are the main routes of the surveyor

On the map the main routes of the surveyor has been drawn from the tracking files of the GPS. The search for sites was biased towards areas where sites would normally be found. But it is the general impression, that the survey has covered the areas of investigation quite well. Even though it cannot be ruled out, that more sites, especially sites consisting of minor features may still be found in the areas investigated.

2.2 Registration

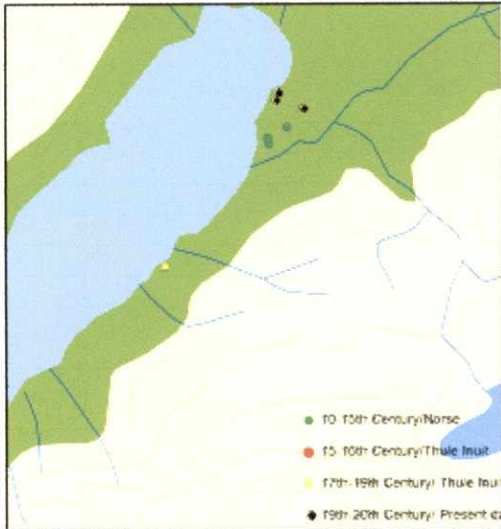
All substantial manmade features were registered. The basic registration was carried out with a handheld GPS, notebook, and in some cases camera. In sites of particular archaeological interest the features were measured with a more precise differential GPS and the basic descriptions supplied with sketches and interpretations. Features have in many cases been photographed, but mainly where the object allowed for illustrative photography.

The registration was limited due to the limited amount of time spent in the field. Only selected samples of the minor features were photographed. Inuit Tent ruins and graves as well as Norse ruins were registered with d-GPS and photography as well as interpretative sketches and descriptions in the notebook.

2.3 Documentation

All records of the survey including digital photography and GPS-registrations are kept at the Greenland National Museum and Archives. The GPS measurements from both the handheld and the d-GPS are kept in their own software formats as well as in Mapinfo and AutoCAD formats.

3.0 Results



Northern part. Dating of features.

In all some 113 features have been found and registered in the Database for Protected Ancient Monuments. The paramount of these are from activities during the last C. Only some 16 sites containing some 41 features in all are of particular culture-historic/archaeological interest.

In several of the formerly documented sites additional ruins were found during the survey. And in 9 cases new sites were discovered.

All the registered features are presented in [Appendix 1](#), while all the sites of particular archaeological interest are presented in [Appendix 2](#). Refer to these lists for basic descriptions as well as precise location of features.

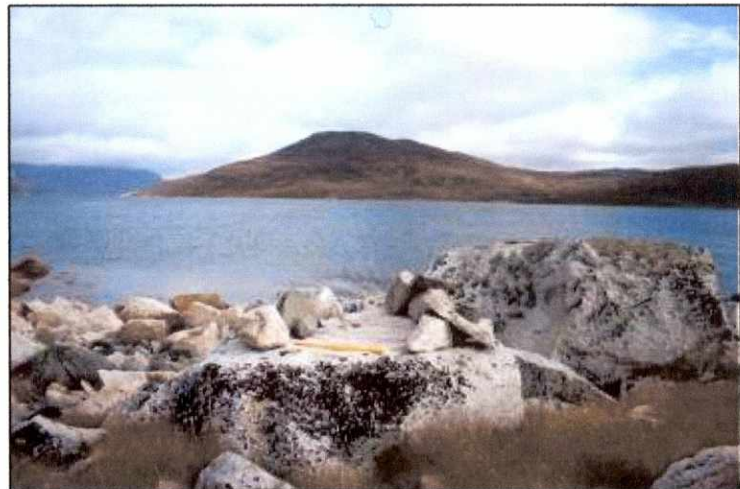
3.1 Minor features

The minor features are stone built features. Most of them can be dated to the last Century. Evidently many cairns have been found on the path between Qaqortoq and the famous Norse site at Hvalsø. On exposed bedrock in close proximity to the coast traps made of stone, meatcaches and, in two instances, shooting hideouts have been found.

Unfortunately the only mean of dating these structures by using the growth rate of lichens is limited to a few structures due to their close proximity to the coast which favours the growth of undatable lichen-species. But almost all of these structures seem to be fairly recent. In several traps string and wooden pegs for the traps release-mechanism is still in place and show the very recent nature of the features. In other instances, like the shooting hideout, no 9, present day materials in connection with the features showed the continued use of these.



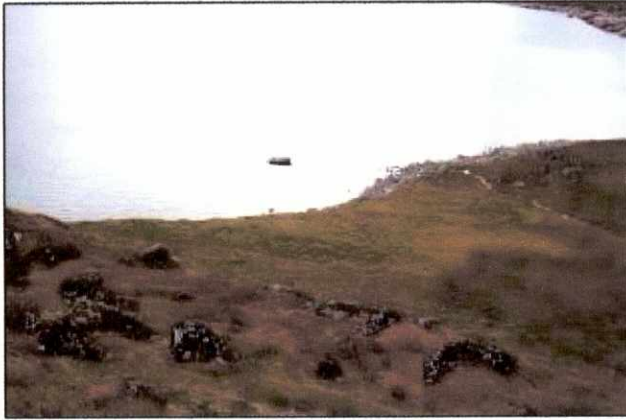
Trap on flat bedrock



Shooting hide. Feature no. 61.

In general these minor and fairly recent features, does not hold further potential for an archaeological investigation. Seen from a culture- historic view their main potential lies in their ability to show the interaction between man and landscape during the last Century.

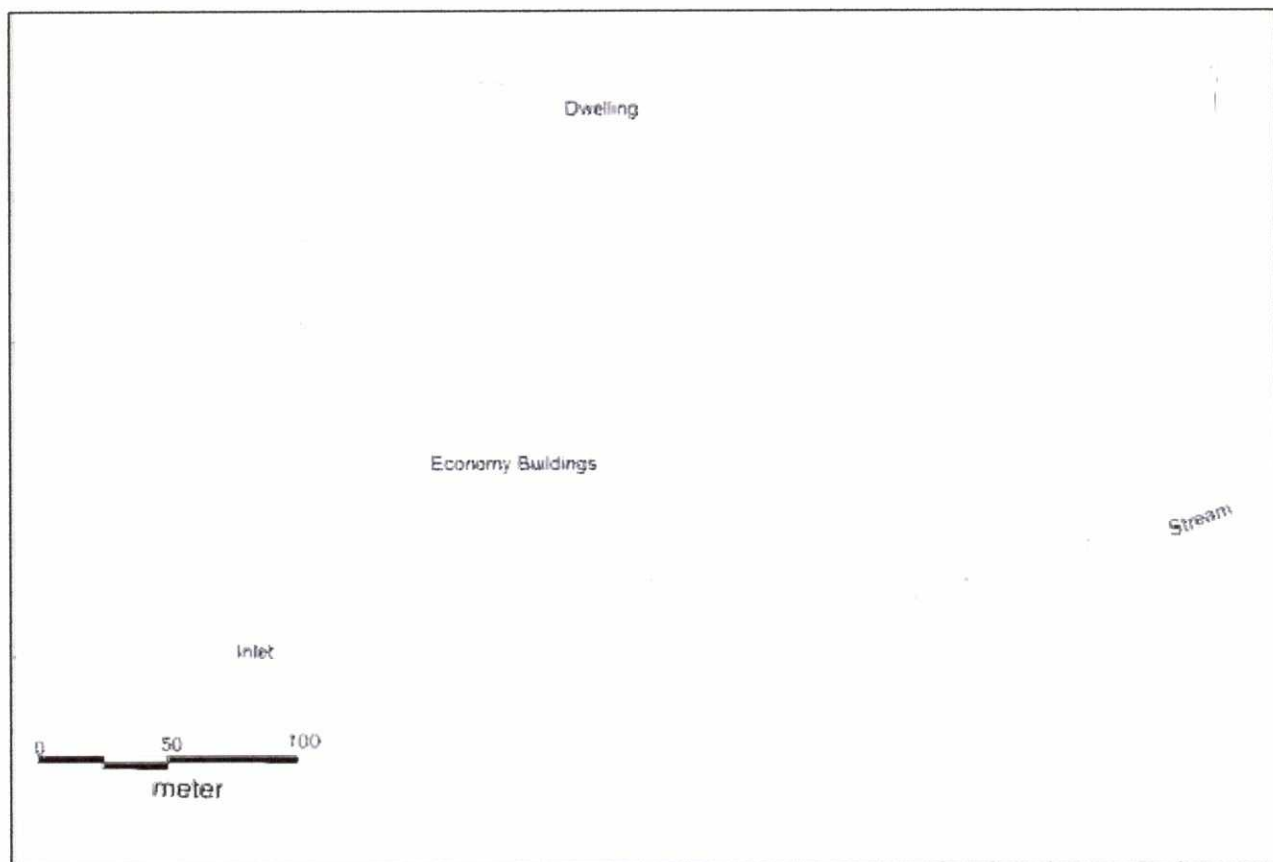
3.2 Norse sites



*The ruins at 60V2-IV-652 seen from above.
The Dwelling is clearly marked by the lush green grass.*

Except for one possible Norse building on the coast of Tartoq (feature no 61) no new Norse sites have been discovered. But on several of the sites already known new structures were discovered.

In all 4 Norse sites were surveyed. These all seem to represent small farms. They all have a comparatively small dwelling and on 3 of these only two minor economy buildings have been found in connection with the dwelling. On the last, 60V2-0IV-651, one dwelling, one animalpen and four economy buildings were discovered.



Ruingroup 60V1-IV-506

3.3 Thule-Inuit sites

Most of the evidence of Thule-Inuit occupation is tent ruins. These ruins are built of stone and turf and most often have a trapezoid shape. They are normally interpreted as late summer and autumn residences, often seen on sites that favour fishing and hunting activities in these months. The sites are all situated right next to the coast line. Often they lie right next to flat exposed bedrock on the coast suitable for taking kayaks up and down.

One site, site number 60V1-I-164 with feature no. 85, is perhaps an even older Thule-Inuit site. Here a possible clover-shaped ruin dug into the ground have been found. The surveyor could not establish whether this was in fact a dug in ruin or a natural depression. Due to the form, the somewhat raised ground on the sides of the ruin and several stones on one side of the depression indicate that this could in fact be a Thule-Inuit dwelling. These ruins have been found and excavated on several sites in South Greenland and are dated to the 15th to 16th C. Only with an archaeological excavation would it be possible to establish whether the depression is actually such a ruin.



1 trapezoid tent ruin, feature no. 12

One Thule-Inuit grave was found on the west coast of Qaqortukuloq. The grave is 2m long and 1m wide.



The grave. Feature 48.

It is in a height of some 30m above sea level with a good view of the surrounding terrain and towards the fiord. The grave has been disturbed somewhat. Some of the stones from the top of the grave-cairn have been removed.

The grave can be dated to the 18th C on the basis of the growth rate of the lichen-species *Rhizocarbon Geograficum*.

The second grave registered was found by Hans Kapel in 1989 in the bottom of Kangerluarsuk. It has been disturbed after the initial registration. The grave measured 0,7m * 1,2m. The lichens seem to suggest a minimum age of 150 years.

4.0 Culture-historical implications of the mining activity and access roads

In the following chapter the areas under investigation are reviewed one by one. All sites of particular culture historical significance are listed in Appendix 2. Please refer to these for a list of descriptions and coordinates.



The surveyed areas with access-roads (black) and the potentially threatened areas of particular archaeological significance (red circles)

4.1 Road 1. Qaqortoq - Tartoq

Many features were encountered on this coastal stretch. Most of the minor features, such as the many modern cairns, fox-traps and the like would not need further registration. 6 sites with 8 tent ruins one of them also containing a Thule-Inuit grave would require further registration as well as excavation in case the final projection of the road is coinciding with these.

The most significant site on the projected road is the Norse farm, 60V2-0IV-652. This farm would require extensive excavation in case the road or the earthwork in general is going to coincide with the farm site.

4.2 Road 2. Iterlak - Eqalugaarsuit Kangilleq

In the inland area of the projected road across the Qaqortoq Peninsula no sites of culture historic significance was encountered. As long as the road stays on the south side of the stream running down to the bay at Eqalugaarsuit Kangilleq it will not coincide with the Norse site 60V1-00I-507. On the north facing coastal stretch the road could potentially destroy three ruins from hunting cabins found during the survey. These cabins would not require complete excavation, but it is recommended, that minor testpits are dug in the cabins in order to date these as well as to ascertain their function.

4.3 Road 3. Road to Nuupiluk

No sites of interest were encountered on the leg running from the main road, road 2 down to Nuupiluk.

4.4 The Mining area

Only one site has been encountered in the mining area. The site 60V2-0IV-052 (lb.nr. 6/89) registered by Hans Kapel in 1989. In the site two tent ruins have been registered. In case the area where the ruins are located is disturbed by mining activity or the access road to plant or wharf, minor excavations with further registration must be undertaken. Apart from these minor ruins right next to the sea, the area seems completely devoid of human prehistoric presence.



Areas of potential conflict marked with red.

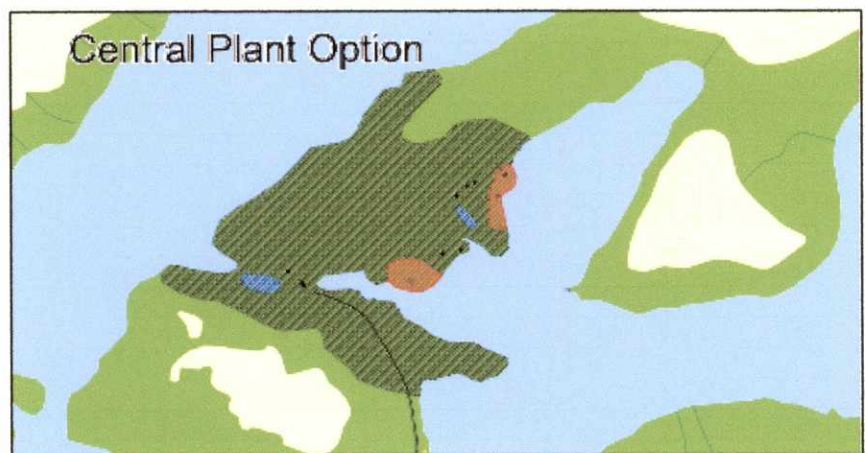
4.5 Northern plant option

The northern plant or an access road to the northern plant or wharf is very likely to coincide with the Norse Ruin group at 60V2-0IV-653. Apart from the two ruins found in 1989 a third ruin was found in the boulder-field behind the main buildings. It is of utmost importance that these ruins are either preserved or excavated. The stone built grave found in 1989 (lb.nr. 5/89) has been partly destroyed since.

In the northern plant several minor features, such as tent rings, have been found on the flat coastal foreland next to the sea (60V2-IV-53, Lb.nr 1/89 and 2/89). It is recommended, that minor test excavations are undertaken to determine the age of these, since some of them may be of considerable age. If the plant and all potentially destructive activity were to be kept on the south-eastern side of the stream, Lakseelv, no further archaeological work had to be undertaken. But in case the comparatively limited land northwest of the stream is used for plant or access roads, excavations has to be undertaken or clear demarcation of land to be preserved has to be made

4.6 Central plant option

The central plant option coincides with several sites of culture historic significance. These are concentrated in the south-eastern part of the area facing Qaqortukulooq. Especially the Norse ruin group 60V2-0IV-651 with 6 ruins would require either extensive excavation or preservation. Apart from this the newly discovered Inuit/Norse sites at site 60V2-IV-69 with ruins 61-63 would also require some excavation and further registration in case these should coincide with destructive activity.



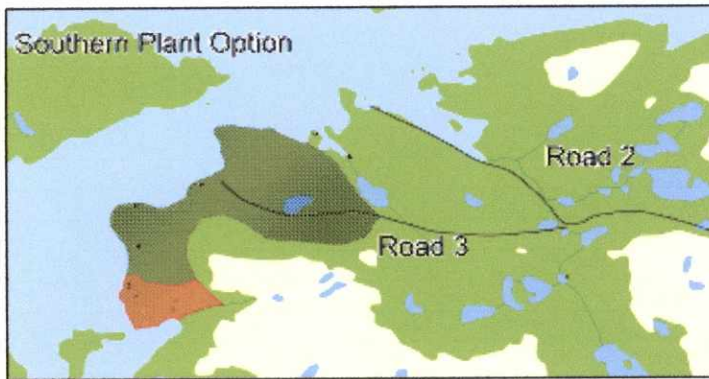
Areas of potential conflict marked with red

The north-western part of the area, facing Kangerluarsuk, contains no sites of interest and could from a culture-historic point of view be recommended as a potential location of a plant.

4.7 Southern plant option

Two sites attract special attention in the area of the southern plant. These are the Thule-Inuit site 60V1-I-32 and the Norse site 60V1-I-506 and an Inuit site, no. 60V1-I-164, discovered this year. The Inuit site

60V1-I-32, situated on the flat foreland next to the narrowest part of the strait just west of the Peninsula,



Areas of potential conflict marked with red

would not require much work in terms of registration and test excavations. But to release the somewhat uncertain Thule-Inuit ruin feature no. 85 would require extensive excavation. The main problem in the area is the Norse site. Both the dwelling and the two economy building could potentially be very informative. In case there is any chance of the site being disturbed major excavations would have to be undertaken. The valley surrounding the buildings, clearly demarcated by the surrounding terrain and with clearly delimited areas which could be used for field systems probably holds much information

on Norse agrarian practises. If a plant was to be built in this valley it would be recommendable to bring in geomorphologists to investigate the imprint of prehistoric land-use. Apart from these sites in the southernmost part of the area there are no sites of specific culture-historic interest. In the valley with the proposed access-road to Nuupiluk and the comparatively flat coastal foreland northeast of Nuupiluk no sites were found and it can without further notice be recommended for plant-location.

4.8 Summary and recommendations

Several groups of ruins coincide with the potential location of the plant. The ruins are often found on flat coastal terrain where access-roads to the plant or the plant itself may destroy the ruins completely. Seen from an archaeological point of view it would be recommendable to place plant on either the north western part of the "Central Plant Option" or in the northern part of the "Southern Plant Option". In case the plant or other potentially destructive activity, i.e. the use of large entrepreneurial machinery, is to be placed in other areas of the potential plant areas investigated the ruins should either be clearly marked by an archaeologist and avoided completely or further registration or excavation would have to be carried out. The two Inuit tent ruins downhill from the Mine site seem very threatened by destruction and it is recommended that minor excavations should be done on these to release the mine area completely unless the small foreland on which these ruins are situated is not anywhere near the destructive activity of the mine and the access-road is placed uphill from these.

Appendix 1: List of features registered.

All coordinates are shown as X and Y-coordinates in UTM zone 23North format. (WGS 84 Datum).

Feature	X-coordinate	Y-coordinate	Type	Date	Description	Photo
1	444953,002840907	6734918,996715640	Hunting Cabin	Recent		
2	445144,001332336	6734896,001396280	Trap	Recent	Ca.70*110cm Placed on bedrock	5780-81
3	444661,998749855	6734815,997680800	Cairn	Recent		
4	444653,002533728	6734826,995442240	Cairn	Recent		
5	444442,997371196	6735000,000227610	Cairn	Recent		
6	444609,002708564	6734943,001829470	Fireplace	Recent		
7	445141,997592172	6734902,999971740	Trap	Recent	On flat bedrock next to the sea	
8	445328,996849118	6735150,999492150	Trap	Recent	On flat bedrock next to the sea	
9	445382,001136253	6735237,001986590	Stonewall	Recent	Wall for shelter. App. 3*3m. And up to 1.2m high. Made on bedrock next to the coast.	5794-96
10	445379,997396089	6735216,996058740	Meat cache	Recent	1*1,2m. 0,8m high	5791-93
11	445345,999780057	6735238,001783090	Trap or meat cache	Recent	90*110cm	5797
12	445334,406122976	6735398,519110250	Tent ruin, trapezoid	17th-19th century	The walls are up to 35cm high and 40cm wide. Made of stone and turf. Contours of the bed frame is recognisable	5799-5800
13	445423,997221253	6735533,001736700	Tent ruin, round/trapezoid	17th-19th century	A tent ruin which is hard to define. More or less trapezoid in shape. Made right next to a natural rock. The walls are 30cms above terrain and 50cms wide, made of stone and turf.	5801-02
14	445426,000961417	6735537,000922670	Tent ruin, trapezoid	17th-19th century	The walls are up to 20cms high and 50cms wide. The ruin is placed on exposed bedrock.	5803-04
15	445619,003193010	6736123,001643920	Cairn	Recent		
16	445580,998096650	6736163,003501660	Cairn	Recent		
17	445517,002099068	6736564,001879600	Trap	Recent	80*110cm. Placed on flat bedrock.	5808
18	445524,002820875	6736610,002516300	Cairn	Recent		
19	445474,000021064	6736700,004196720	Trap	Recent	Placed on flat bedrock	
20	445529,997549679	6737333,995149700	Cairn	Recent		

21	445462,596018403	6737685,503601170	Cairn	Recent		
22	445414,003257966	6737802,999685180	Fireplace	Recent		
23	445360,001223671	6737989,001824980	Cairn	Recent		
24	445321,996127311	6738023,004903750	Meat cache			
25	445403,110497651	6737998,289934410	Tent ruin, trapezoid	17th-19th century	40cm wide and 30 cm high walls of stone and turf. The building is app. 5m deep and as much as 5m wide Stones in front of the ruin is possibly the collapsed remains of a kitchen niche	5807-08
26	445518,997593388	6737074,997867850	Cairn	Recent		
27	445391,129285889	6736847,224230510	Cairn	Recent		
28	445393,001092544	6736720,000126610	Cairn	Recent		
29	445088,003803722	6735035,003102880	Meat cache			
30	444354,601920343	6733207,495086850	Cairn	Recent		
31	439954,998712808	6736030,000574020	Fireplace	Recent		
32	436166,602222029	6738303,497810230	Cairn	Recent	Large and rectangular cairn. 1,5 meters high and 1*1m at the base	
33	436582,596820921	6737941,501493540	Sign	Recent	Sign from Qaqortoq municipality. The text reads: Protected area, camping forbidden.	
34	436601,999292549	6737920,995667440	Cairn	Recent		
35	436743,596930801	6738687,499647770	Rectangular Thule-hunting	Recent	Rectangular building of stone and turf. Walls up to 0,5m high, seems fairly recent	
36	436836,997609142	6738738,999165190	Rectangular Thule-hunting	Recent	Rectangular building of stone and turf. Walls up to 0,5m high, Seems fairly recent	
37	436839,001349306	6738732,000589730	Rectangular Thule-hunting cabin	Recent	Rectangular building of stone and turf. Walls up to 0,5m high, Seems fairly recent	
38			Dwelling	Norse		
39	446985,999260409	6740867,995814080	trap	Recent		
40	447044,998276348	6740941,000954100	Tent ruin, trapezoid	17th-19th century	4*5m. Most probably reused as tent ring in recent times.	
41			Cairn	Recent	App. 0,5m high	
42	446879,001184824	6740622,995683150	Trap	Recent		
43	446818,996175882	6740565,997285010	Cairn	Recent		
44	446301,000483048	6740547,001151620	Hunting Cabin	Recent	Wooden cabin.	

45	446104,996764131	6740363,998401300	Cairn	Recent		
46			Cairn	Recent	0,5m high	
47	445877,996916505	6739918,998979640	Cairn	19th century	1m high made of large flat stone slabs on flat bedrock	
48	446117,002713426	6740000,002491610	Grave	18th century, Thule culture	1 m wide and 2 m long grave cairn. Very collapsed and disturbed.	
49	445232,000982664	6738672,002802110	Fireplace	Recent	Circular fireplace on bedrock	
50	445244,996433274	6738596,998069110	Hunting Cabin	Recent		
51	445261,001617053	6738552,997025390	Cairn	Recent	Circular cairn around wooden pole	
52	445297,002973250	6738416,004909740	Tent ruin, trapezoid	17th-19th century	4 m deep and 3,5m wide at the bottom. Remains of the bench are visible, Possibly the tent foundations has been rebuilt several times.	5836
53	445323,999867475	6738589,999493650	Tent ruin, trapezoid	17th-19th century	4 m deep and 3,5m wide at the bottom. Remains of the bench are visible,	
54	445291,997745762	6738640,999112820	Cairn	Recent	1m high and conical in shape	
55	445211,996564402	6738737,999368700	Meat cache?		0,6*1,2m	5837-38
56	445495,999933646	6739383,997877570	Tent ruin, trapezoid	17th-19th century	The ruin has been partly eroded away by the sea. 1,2m still remains. 4m wide at the bottom. 15cm high and 40cm wide walls of stone and turf.	
57	446285,597245903	6739780,497171290	shooting hide	Recent	Stones arranged on flat rock near the sea to conceal the hunter. 70cm wide and 1m long	5839-40
58	446257,000657884	6739935,995520050	Tent ruin, trapezoid	17th-19th century	4m wide and 4m deep. The walls of stones and turf are 20cm high and 40cm wide	5841-42
59	447425,997512047	6743160,999079900	Trap?		50*120cm. Partly overgrown	5839
60	447432,000486694	6743156,999893920	Ruin, partly trapezoid		Remains of a building with substantial walls of large stones and turf. The walls are some 40 high and 50cm wide. The building is 3*4m. Remains of a bench are visible	5860-61
61	447908,997841688	6743390,002466920	House ruin, squared	Norse/Thule?	Remains of a building with substantial walls of large stones and turf. The walls are some 50cm high and 50cm wide. The ruin is 2,5 times 3,5m.	5862-64
62	447824,997425844	6743682,003031050	Tent ruin, trapezoid	17th-19th century	Tent ruin with a floor of stone slabs in the front part and remains of the raised bench in the back. The ruin is 3m wide and 3,5m deep	
63	447850,996572909	6743756,997766090	Ruin, squared	Norse/Thule?	Rectangular building with walls of large stones. 4*4,5m. The walls are 50cms high and 50cms wide.	
64	447940,002216241	6743971,004205700	Cairn	Recent	0,5m high	

65	447927,996266946	6743986,001153110	Cairn	Recent		
67	447889,001669270	6744058,996295160	Cairn	Recent		
68	447879,997207299	6744049,998126710	Cairn	Recent		
69	447583,996134603	6743907,997030630	Cairn	Recent		
70	447504,003199087	6743864,995783410	Cairn	Recent		
71	447487,998015309	6743798,999216820	Meat cache			5865
72	447380,999939723	6743761,996748560	Cairn	Recent		
73	447227,998298810	6743125,996204630	Meat cache			
74	446473,998296379	6744391,998513520	Meat cache	18th century	Meat cache on flat bedrock. Disturbed	5866
75	444829,001834383	6743144,002539500	Meat cache		Meat cache - disturbed	
76	445525,000568035	6742924,997117420	Meat cache			
77	446915,002541020	6742812,000117630	Economy building	Norse	Economy building of stone and turf. 4*8 meters. The walls are very collapsed, 1m wide and some 30-50cms above terrain.	5975
78	446916,998035340	6742816,999100100	Dwelling	Norse	Norse dwelling. Seen as a mound of stone and turf app. 80cm higher than the surrounding terrain. The mound is app. 14*15 meters	
79	446890,001141115	6742814,999507110	Economy building	Norse	Small economy building. 3*4 meters. Walls are made of stone and turf and are some 50cm wide and 50cm above terrain	
80	446876,997444660	6742826,997065040	Economy building	Norse	Economy building of stone and turf. 3*6 meters. The walls of stone and turf are 50cm wide and 50cm high.	5876
81	446905,998079049	6742816,999100100	Animalpen	Norse	Animal pen build up against a natural rock. 15*25m and crescent-shaped. Build of very large stones.	
82	446902,996591725	6742815,999303610	Economy building	Norse	Small economy building. 2*3 meters. Walls are made of stone and turf and are some 50cm wide and 30cm above terrain	
83	433396,996285716	6735539,000515660	Tent ruin, trapezoid	17th-19th century	Trapezoid tents ruin build of stones. App. 4m deep and 4 m wide. Sleeping platform barely visible.	
84	433282,997488323	6735768,003902690	Trap	Recent		
85	433251,003612455	6735881,000902470	Possible dugin ruin	15-16th century?	A depression in the surface. Resembling the shape of a cleavered leaf. Around the edges several stones were found This could be a ruin of 15th/16 th	5908
86	433194,000090836	6735896,997646380	Cairn	Recent		
87	433183,997881705	6735929,001132170	Tent ruin, trapezoid	17th-19th century	4 m deep 3,5m wide.	

88	433196,003831000	6735957,995230500	trap	Recent		
89	433318,001097360	6736553,004118160	Cairn	Recent		
90	433266,596504019	6737298,502374150	Trap	Recent		
91	434256,600816047	6737570,497010430	trap	Recent		
92	446147,124782639	6740455,059866000	Dwelling	Norse	Large very collapsed dwelling. The ruin is as much as one meter above the surrounding terrain. Several rooms and hallways are visible in the structure. Amongst these a large room in the easternmost part which could potentially be a barn. The building is around 48m long and 15m wide.	
93	446044,142433226	6740459,139035700	Economy building	Norse	Small economy building. The walls in the building are up to 1,5m wide and 0,5m high. A hint of a doorway is seen in the southern gable. The building is some 11m long and 6m wide.	
94	446030,883115598	6740461,908471990	Economy building	Norse	Small economy building. The walls in the building are up to 1,5m wide and 0,5m high. A doorway is seen in the southern gable. The ruin is possibly partly dug into the sloping terrain. The building is app. 6m long and 4 m wide.	
95	454214,190928507	6749811,455398750	Dwelling	Norse	Collapsed dwelling build of stone and turf. The ruin is overgrown with Salix and willow. Even though rooms, hallways and walls are fairly recognisable. The outer walls are around 1 m thick and the building and the walls stand some 40cm above the level of the rooms.	
96	454206,019296809	6749860,105496160	Economy building	Norse	Small economy building with a single room. The walls are p to 1m thick and 0,5m high.	
97	454359,993947349	6749941,618904340	Shelter	Norse	Small shelter in the stonefield behind the main farm houses. Uses the rocks in the field as walls. In some places the natural shelter has been improved with a 1m high human made stonewall	5895
98	454485,907989750	6750084,599801000	Cairn	Recent		
99	454488,505430703	6750086,889334970	Cairn	Recent		
100	454273,923824587	6750158,474763960	Cairn	Recent		
101	453353,967959854	6748887,273513300	Grave	19th century	Small disturbed Thule Inuit grave. Measures 1,2m*0,7m	5889
102	453368,150812043	6748891,372678930	Cairn	Recent		
103	433444,591298993	6735356,817598470	Tent ruin	Recent	Oval tent ring of stones with a diameter of app 3,6m	
104	433445,102541339	6735362,906359120	Tent ruin, trapezoid	17th-19th century	Tent ruin. With a trapezoid shape. The ruin is 4,5m deep and as much as 4,5m wide .The walls are made of stone and turf, 20cm high and 20cm wide.	5898

105	433440,971373347	6735364,046127120	Stone floor with possible tent ruin	17th-19th century?	A floor of flat stone slaps is app 0,5m wide and 3m long. Around this fairly obvious feature the vague remains of a what seems to be a trapezoid tent ruin is barely visible	5899
106	433922,388500884	6735691,719430170	Stone floor with possible tent ruin		A floor of flat stone slaps. 1*1,5m	5903
107	433891,144996846	6735573,403513030	Tent ruin, trapezoid	17th-19th century	4m wide and 4m deep. The walls of stones and turf are 20cm high and 40cm wide	5904
108	433872,245521719	6735553,577548550	Tent ruin, trapezoid	17th-19th century	4m wide. The ruin is partly eroded away by coastal erosion. The remaining walls are up to 20 cm high and 30cm wide.	
109	454295,470215733	6750212,263815350	Dwelling	Norse	Norse dwelling. The dwelling is visible as a mound of collapsed stone and turf that rises to a height of as much as 1,5m above the surrounding terrain. A few wall lines and rooms are clearly discernible.	5909
110	454300,805276992	6750222,971635810	Economy building	Norse	Very collapsed economy building. The mound of stone and turf rises 0,5m above terrain. The building is app. 8m long and 4m wide.	
111	445414,679417198	6735515,605277700	Economy building	Norse	Very collapsed economy building. The mound of stone and turf rises 0,5m above terrain, the building is partly eroded by coastal erosion. The building is app. 10m long and 6m wide.	5910
112	445435,005423388	6735531,052133530	Tent ruin	Recent	Circle of stones for a tent foundation. Apparently very disturbed.	
113	447054,002738319	6740950,998919040	Tent ruin	Recent	Line of stones next to the high tide waterline. Possibly one of the tent ruins observed by Kapel.	

Appendix 2: List of sites

The list refers to the individual features in Appendix 1. The Coordinates given are taken from the centre of the site. For precise coordinates on individual features see Appendix 1.

60V1-1-32; Matup Tunua; X433.422,0/Y6.735.453,5;

Thule-Inuit ruins. Four minor trapezoid tent ruins (features 83, 107-108) found in 1989 one of these was not found during the present survey. Located on the coast next to a narrow strait

60V1-I-160; X 445.379,2/Y 6.735.479,2;

Thule Inuit ruins. Two trapezoid tent ruins (features 12, 13 og 14) on the coastal foreland of Qaqortukulooq

60V1-I-161; Illorsuit; X 445.364,3/Y 6.738.012,2;

Thule Inuit ruins. A trapezoid tent ruin (25) and a meat cache (24) on the coastal foreland of Qaqortukulooq.

60V1-I-162; Illorsuit; X 445.302,8/Y 6.738.489,1;

Thule-Inuit ruins. Two trapezoid tent ruins (52, 53) and a meat cache (55) on the coastal foreland of Qaqortukulooq.

60V1-I-163; X 445.496,0/Y 6.739.384,0;

Thule-Inuit ruin. A trapezoid tent ruin (56). Partly eroded by coastal erosion. In a bay on the coast of Qaqortukulooq.

60V1-I-164; X 433.218,5/Y 6.735.903,3;

Thule-Inuit ruins. One possible dugin ruin (feature 85) from the 15-16th century. One tentruin (feature 87).

60V1-I-165; X 436.833,4/Y 6.738.735,0;

Thule-Inuit ruins. 3 stone and turf foundations (features 35-37). They may be quite recent.

60V1-I-506; Matup Tunua; X433.899,7/Y6.735.627,2

Norse ruins. A minor farm site in a well-protected crescent-shaped valley. One dwelling and two economy buildings (feature 109-111)

60V1-IV-67; X 446.181,3/Y 6.739.962,2;

Thule –Inuit ruins. A trapezoid tent ruin (58) and a grave (48).

60V1-IV-68; X 447.045,0/Y 6.740.940,9;

Thule-Inuit ruin. Site with one trapezoid tent ruin (feature 40).

60V1-IV-69; X 447.855,3; Y 6.743.517,3;

Thule-Inuit and perhaps Norse ruins (features 61-63). A tent ruin from thule culture and two rectangular buildings. Situated next to areas of flat bedrock on the coast.

60V2-IV-53; X 454.382,3/Y 6.750.164,4 3 Thule Inuit ruins (features 103, 112, 113) and one grave (feature 101). Supposedly quite recent. The site somewhat disturbed

60V2-IV-55; Killavaat Allannguat; X 453.360,2/Y 6.748.888,8;

2 Thule-Inuit trapezoid tent ruins (feature 105, 106). On a comparatively flat foreland with a small natural harbour on the coast of Kangerluarsuk.

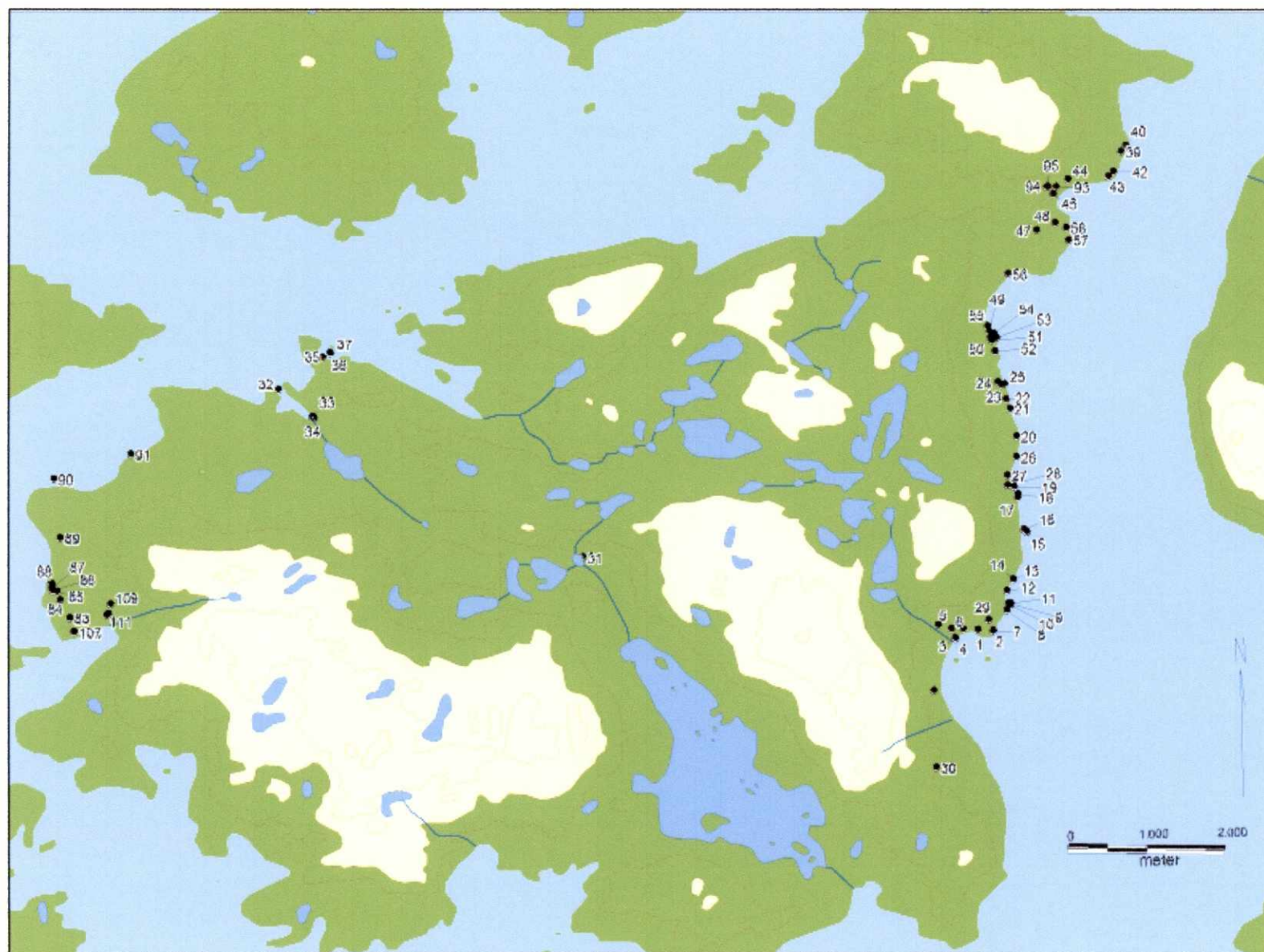
60V2-IV-651; Tartog; X 446.901,8/Y 6.742.820,5 Norse ruins. One dwelling, 5 economy buildings and an animalpen (features 77-82). On a sheltered plateau app. 100m from the coast.

60V2-IV-652; X 446.087,2/Y 6.740.454,8;

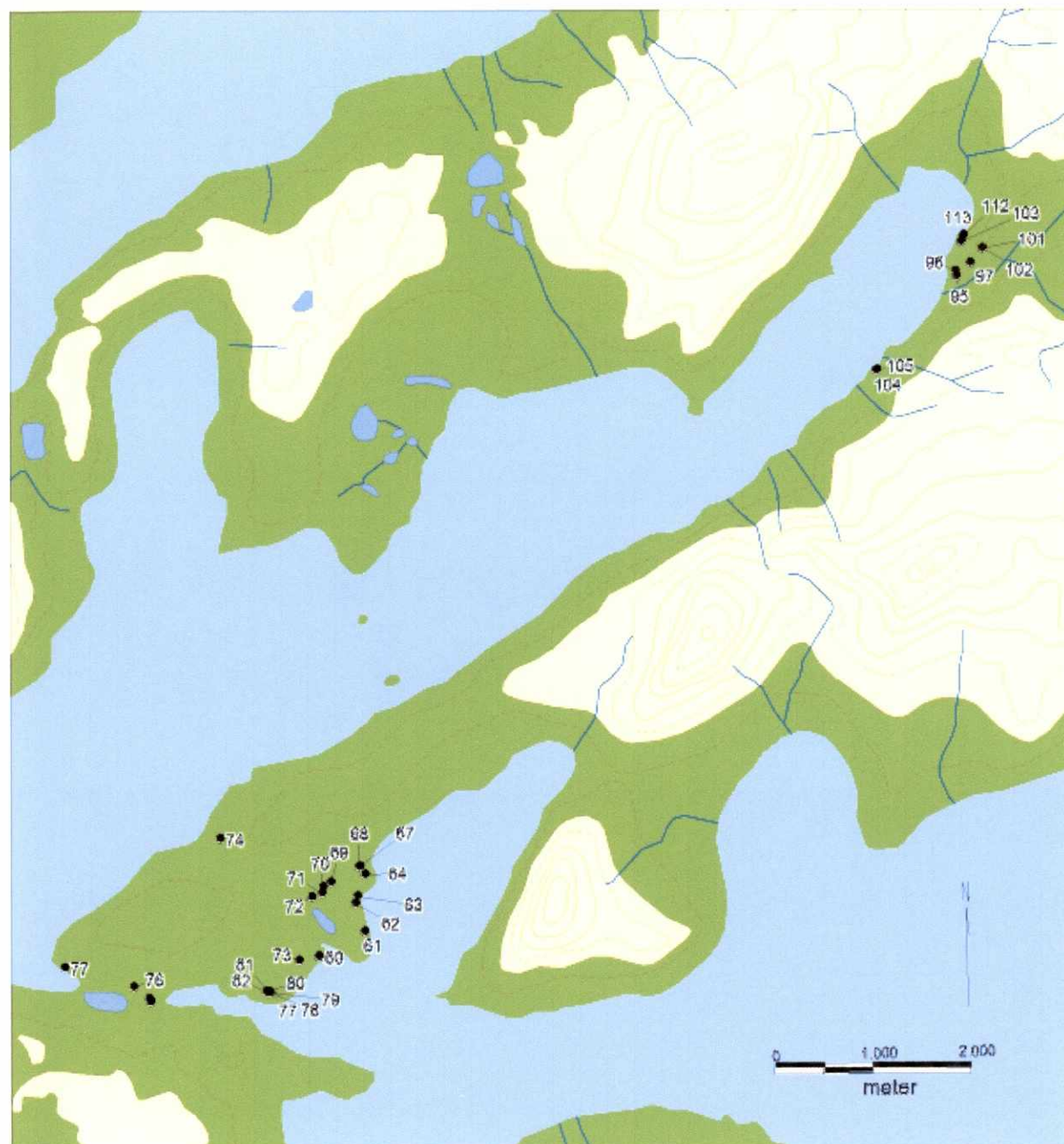
Norse ruins. One dwelling and two economy buildings (features 92-94). Situated on a south facing slope next to a small bay.

60V2-IV-653; Lakseelv; X 454.275,7/Y 6.749.861,5;

Norse ruins. One dwelling, a small economy building and a manmade shelter (features 95-97). Situated in a comparatively flat south facing foreland.



Distribution map. Southern part of Qaqortoq Peninsula. Numbers refer to the Individual features described in the list.

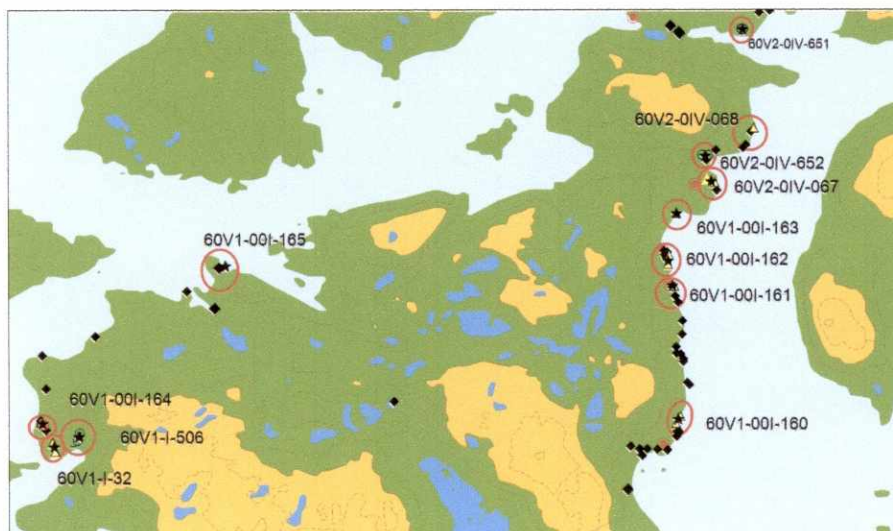


*Distribution map. Northern part of Qaqortoq Peninsula.
Numbers refer to Individual features described in the list.*



Sites from the northern part. Green marks Norse features. Yellow marks 17th-19thC Thule-Inuit red marks Thule-Inuit features of unknown date and black marks recent features.

60V2-QIV-55



Sites from the southern part. Green marks Norse features. Yellow marks 17th-19thC Thule-Inuit red marks Thule-Inuit features of unknown date and black marks recent features.