



Social Impact Assessment TANBREEZ Mining Greenland A/S

Non-Technical Executive Summary

March 2012 rev August 2013

1 NON-TECHNICAL EXECUTIVE SUMMARY

This is the non-technical executive summary of the Social Impact Assessment for the TANBREEZ mining project. The TANBREEZ mining project is located in South Greenland (see Figure 1.1), in the municipality of Kommune Kujalleq, between Qaqortoq and Narsaq, Killavaat Alannguat, in the inner part of Kangerluarsuk Fjord (see Figure 1.2).

A former project proposal contained a road from the mine site to Qaqortoq which is not included in this project proposal.

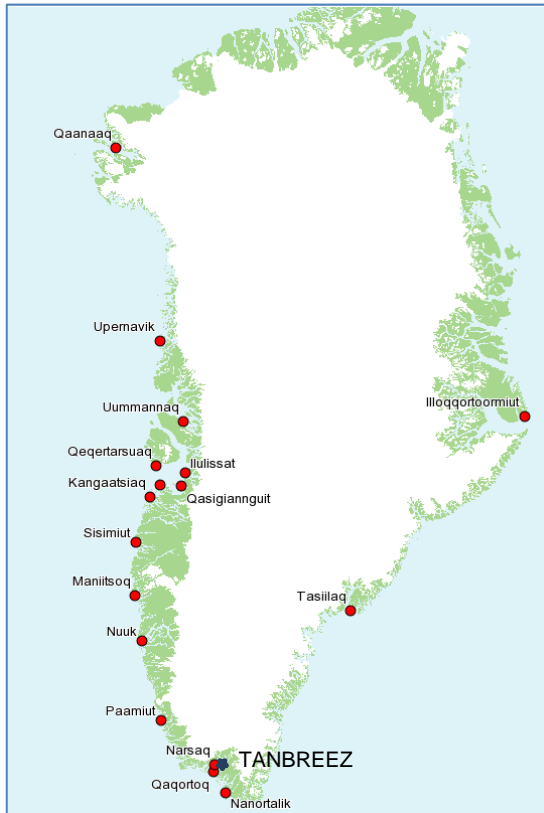


Figure 1-1 Map over Greenland and the location of the TANBREEZ project area.



Figure 1-2 Location of the mining project.

An Environmental Impact Assessment (EIA) is prepared and reported in a separate report.

Objective of SIA

The overall objective of the SIA is to identify and analyse the potential impacts of a proposed mining activity and to recommend initiatives to realize sustainable development opportunities as well as to mitigate the negative impacts. The SIA is based on a high degree of engagement of the stakeholders.

Legislation

The main legislation for this project is the Act no. 7 of 7 December 2009 on Minerals and Resources (Act on Mineral Resources), which came into force on January 1, 2010. The Social Impact Assessment is based on the Guidelines for Social Impact Assessments for mining projects in Greenland, November 2009, prepared by the Bureau of Minerals and Petroleum.

Description of the project

TANBREEZ mining project plan to mine Kakortokite. Kakortokite is composed of a series of three different layers. Each layer has distinct colouring due to the different combinations of minerals; arfvedsonite (black), eudialite (red) and feldspar-nepheline (white).

TANBREEZ is an abbreviation of the metals which are planned to be extracted from eudialite (red); (Ta for Tantalum, Nb for Niobium, REE for rare earth elements and Z for Zirconium-oxide).

Tantalum is very stable and used in alloys, due to its resistance to corrosion, as well as in capacitors in electronic equipment. It is also used in mobile phones and other electronic industries as the space and car industries.

Niobium is very similar to Tantalum and is also used in alloys to strengthen steel, as well as alloys with superconductive characteristics.

REE (rare earths elements) can be used for a number of increasing purposes; e.g. for several new green technologies and consumer products such as wind turbines, rechargeable batteries, hybrid cars, laptops, mobile phones and Ipods. Some REE are also used as catalysts in car exhaust pipes and in reduction of emissions from diesel cars.

Zirconium is a light metal, resistant to corrosion and is also used in alloys. Furthermore, it is used in ceramics and advances ceramics for special use, such as in the space industry.

The mining project

The project consists of an open mine pit, a processing plant, a port (including a helipad), a mine camp with supporting facilities, a tailings deposit, and internally connecting roads. The processing of the ore is a simple process where no chemicals are used, and consists of a crushing plant followed by a magnetic separator (a process that utilizes the minerals' different attractions to magnetic fields). The outcome of the separation is made up of three fractions: a black highly magnetic concentrate (mafic), a red concentrate (eudialite), and a white non-magnetic concentrate (feldspar). See the flow chat in Figure 1.3. The black magnetic concentrate (mafic) is a silicate mineral and will be stored as tailings.. The feldspar is also a silicate mineral and will be sold. Feldspar can be used in glassmaking, ceramics, and in the construction industry.

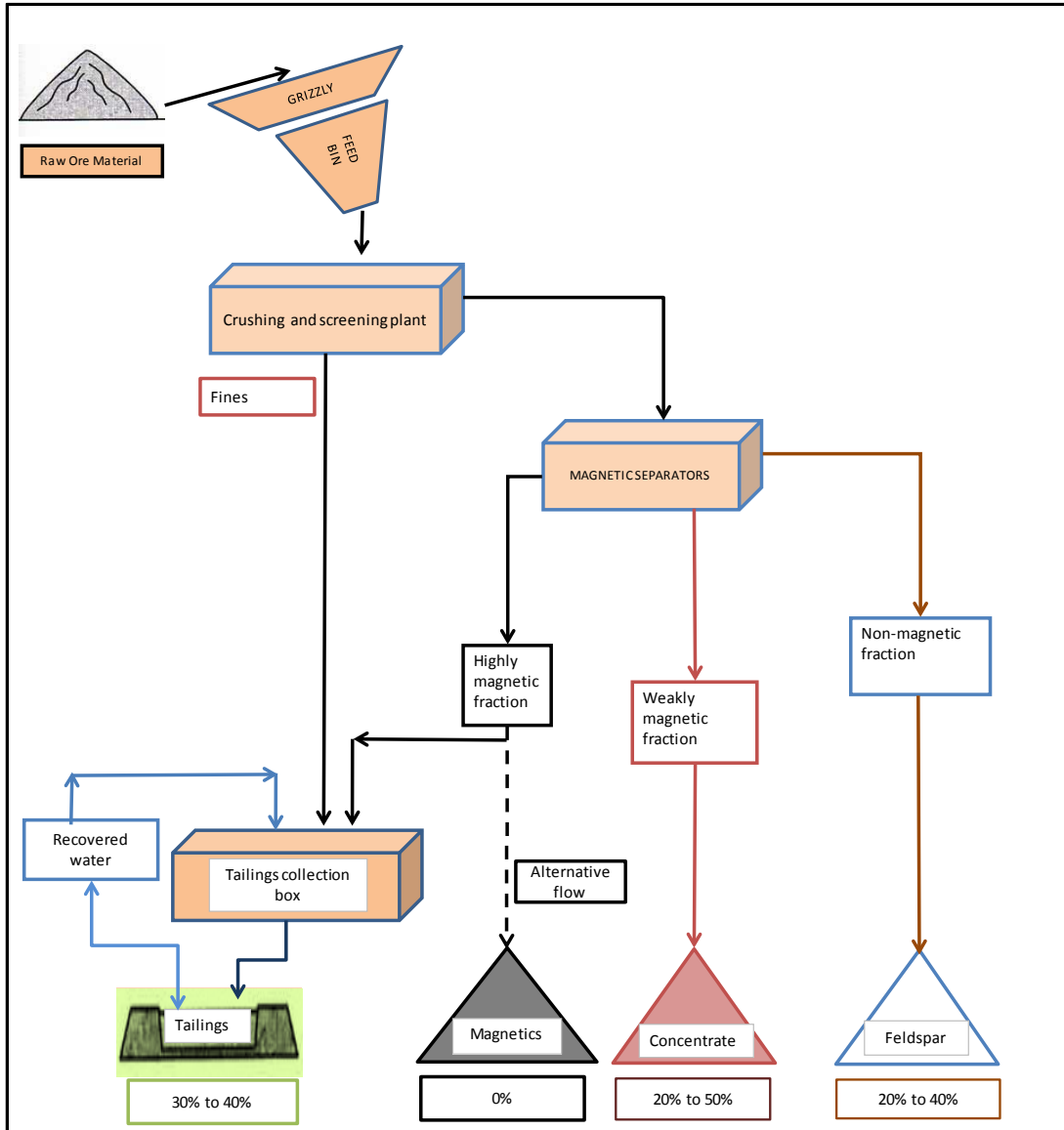


Figure 1-3 Flow chat of the mining process.

The concentrates will be stored before shipping.

The project will consist of a:

- Mine site (open pit)
- Processing plant (crushing and magnetic separation)
- Tailings deposit (Fostersø)
- Mine camp
- Port site (Located in the Kangerluarsuk Fjord, main access point for the ship which will bring supplies and manpower. Storage area for the concentrates)
- Storage (located at the port site for concentrates)
- Separate fuel storage near the harbour
- Helipad
- Infrastructure (roads between the mine site, processing plants, mine camp, tailings deposit, and to the port)
- Energy supply (heavy fuel power generators)
- Water supply (water will be supplied from the fjord and existing elevated lakes)

- Sewage treatment (liquid waste generated at the camp will be treated and discharged into the Fjord)
- Waste (solid waste generated at the site will be treated in an incineration plant on site).

The project plan is to mine approximately 500,000 tonnes of ore per annum (tpa) producing feldspar concentrate and eudialite concentrate. The deposit is estimated to have a size of 3000 million tonnes, and therefore will be in operation for generations.

Currently, the construction phase is expected to run during 2015 to 2017, whereas the operation phase is expected to start at the end of 2017. The estimated duration of the project is currently 10 years.

Approaches and Methodologies

The BMP SIA Guidelines of November 2009 is the basic reference to establish the minimum level of information, content, and general structure of the SIA.

The SIA is based on a participatory approach, involving the stakeholders as often and effectively as possible at each stage of the SIA process.

The SIA identifies the potential relationships between the proposed potential impacts from the project and the valued socio-economic components.

All relevant potential impacts have been identified, with priority given to those which are identified as the biggest concerns by stakeholders and authorities.

For the potential impacts identified, the SIA includes the evaluation of the impact (significance) and proposes a possible mitigation. The net impact after the application of the mitigation measure will be further described.

For the potential benefits identified, the SIA includes the evaluation of such benefits and proposes measures to maximise it.

Scoping phase

First step was the scoping phase which was carried out together with the stakeholder, in order to focus the SIA on key issues identified in cooperation with the stakeholder. Scoping workshops with the stakeholders were held in April 2010.

The following topics were raised at the workshops:

- Employment, education and training, as well as business opportunities
- Livelihood and cultural conditions

The result of the scoping phase was the development of the ToR. This ToR is in Annex 2 including a report from the stakeholder workshops.

The SIA will cover the following stages in the project:

- The construction stage (2015 – 2017)
- The operation stage (2017 – 2026)

The SIA also contains some considerations of the social impact when closing the mine.

Baseline study

The baseline study provides information on demographic, economic conditions and trends, political structures, local organisations, cultural traits, and other factors that can influence the way in which affected communities will respond to anticipated changes brought about by the projects. The baseline also helps to predict in which way the project will be affected by these factors. The development of the baseline and the identification of the impacts are an interrelated and parallel process.

When critical issues are identified, detailed studies on specific groups (focus groups) affected by the project have been produced.

The baseline study has been based on the review of secondary sources and information obtained through qualitative, quantitative, and participatory methods.

Impact Analysis Methodologies

The impact assessment is based on an assessment of the positive and/or negative impacts from the project based on a set of social/socio-economic aspects with the use of an Impact Matrix. The social/socio-economic aspects (employment, business life, health, vulnerable groups, etc.) are used to assess the impact of each activity in the project (transport, provision of goods, operation of camp, mine site and processing plant etc).

For each combination of project activity and social/socio-economic aspect, both for the construction and the operation phases, the positive and negative impacts of the project have been predicted and its magnitude quantified as far as possible.

Mitigation measures have been identified for all negative impacts likely to occur, which are adverse in nature and significant enough to require mitigation [medium and high-level (negative) impacts] in order to diminish or eliminate such impacts.

Description of social baseline conditions

Demographic profile

Greenland's population primarily consists of Greenlanders, or Kalaallit, with roughly 10% comprised of Danes and other Europeans.

Since 2009, the country has been divided into 4 municipalities, Qaasuitsup Kommunia, Qeqqata Kommunia, Kommuneqarfik Sermersooq, and Kommune Kujalleq. Kommune Kujalleq consists of three towns: Narsaq, Qaqortoq and Nanortalik.

The total population of Greenland is 56,615, of which 7,441 people live in Kommune Kujalleq. Both men and women in the age bracket 40-49 are overrepresented in population statistics. This is due to the baby boom in the 1960s. The average age of first-time mothers who are born in Greenland is 22.7 years. In 2008 many women had their first child at the age of 19 (Statistics Greenland, 2012).

The mortality rate of males aged 0-60 years is higher than that of females due to a higher suicide rate as well as fishing / hunting accidents as a result of climatic conditions (Inuuneritta, 2007).

In general, Greenlanders are highly mobile. For young Greenlanders, the primary reasons for moving permanently are education and skilled job opportunities as well as the resulting higher wages. Young women particularly move permanently for education purposes or to seek new challenges (Mobilitetsstygruppen, 2010).

Cultural values

Generally in Greenland, traditional and cultural activities and customs are very important to the local communities, according to SLiCA, Survey of Living Conditions in the Arctic (Poppel, B. et al, 2004).

Cultural heritage

There are finds from the Thule culture (the Inuit culture which the present Greenlanders originate from) and Norse ruins. Greenland's National Museum recommends that these finds be registered and dated before any activity is undertaken in the area.

The Norse Hvalsøe ruins are located on the same peninsula, although away from any future activities.

Use of natural resources

There are three major groups that are users of Greenland's natural resources. The first group are commercial fishermen and hunters, the second group is made up of anglers and hunters who supplement their income from regular or seasonal work and the third group for recreational use. Furthermore, there are a number of sheep and reindeer farmers in South Greenland.

Socio-economic aspects

Greenland's economy is based on fishing and fish products. In addition, Greenland receives a block grant of some DKK 3.45 billion (2012) from Denmark, which is equivalent to approx. 40 % of the public revenue.

The private sector in Greenland primarily consists of small enterprises such as retailers, builders, fishermen, hotel and catering, as well as repair services, apart from a few large national enterprises that are owned by the Home Rule Government. These national companies employ most of the workforce, whereas the small companies employ only a minor share of the total (Skatte- og velfærdskommission, 2010).

The number of unemployed was on average 2,045 persons per month, equivalent to 7.0 % of the potential workforce in the first quarter of 2010. In 2006, this number was 5.6 %. According to Statistics Greenland were the employment rates in May 2010 7,71% for Qaqortoq 10,8% Nanortalik and 8,96 % for Narsaq.

Development plans

Kommune Kujalleq has developed a municipal strategy for 2011 – 2022 (Kommune Kujalleq, 2010).

Education

University education is free in Greenland (paid through the tax system) and is only offered in Nuuk. Students with a certain grade average from upper secondary school are admitted.

The vocational and commercial programs are free (paid through the tax system) and a certain grade average is required to be admitted. Most students are eligible for financial support. Most study programs offer accommodation in dormitories (rooms or apartments).

Health care

All health care treatment is free, including medication and dental treatment financed through the tax system (www.nanoq.gl).

Greenlanders are increasingly abandoning the traditional Greenlandic lifestyle and foods and choosing to adopt a Western lifestyle, resulting in more Western lifestyle diseases such as diabetes, heart diseases, cardiovascular diseases and obesity since 1993. (Bjerregaard, P. og Aidt, E.C., 2010).

Tuberculosis (TB) has been recognised as a prevalent disease in Greenland. On average, 83 persons have contracted TB each year for the past five years. Half of all cases have been reported in South Greenland, especially Nanortalik, which had many cases in 2001.

The number of reported sexually transmitted diseases (STDs) have been a problem in Greenland for many years (Tusagassiivik, 2007).

Vulnerable groups

The population groups that are considered to be vulnerable by interviewed local focus groups and individuals are young mothers, the elderly, handicapped persons, families where one or more members have alcohol or substance abuse problems as well as those who are unemployed.

Alcohol and substance abuse play a recurring theme in the health-related problems and conditions of vulnerable families.

Potential impacts

The potential impacts of the TANBREEZ project during both the construction and operation phases, as well as for the closure of the project are assessed.

The assessment is based on the valued social and socio-economic components:

- Economic aspects (employment, tax and revenues and business opportunities)
- Education and training
- Public service and plans
- Social aspects
- Health
- Culture and natural values

This non-technical summary includes only the description of the medium and high level impacts.

Employment

The project is divided into the construction and the operation phases. The construction phase will demand 30-40 workers at the beginning. This figure is expected to increase to 120-140 during the summer month year 1 and 2 of construction (expected to be 2015-2017). The operation phase will require approximately 80 employment positions within the categories described in Table 1.1. Catering and housekeeping duties will most probably be outsourced to local businesses, but is included in Table 1.1. The majority of the employees will work 4 weeks on and 2 weeks off.

Potentially unemployed workers can benefit from the job opportunities created by TANBREEZ during both the construction and operation phases. However, the most likely scenario is that the project will mainly attract workers who are already employed in other sectors. Indirectly, this will create new opportunities for the unemployed workers.

Nanortalik has a pool of labour which is suitable for the requirements for employment at the TANBREEZ project after minor appropriate training. Furthermore, it is likely that people who left Kommune Kujalleq due to the lack of jobs will move back to Narsaq and Qaqortoq, when new job opportunities are created. In general, the mobility of people is very high in Greenland, and it is likely that people will move for jobs opportunities (Mobilitetsstyregruppen, 2010; SLICA, 2007; Interview with Grethe Nielsen).

The aim of the project is to operate with a maximum of local workforce in all job categories. With the exception of key managerial and professional positions, all positions will be offered to local workers. An estimation of the expected local involvement in workforce for the beginning of operation at the TANBREEZ project is presented in Table 1.1.

Table 1.1 Overview of expected employment and desired share of Greenlandic workforce for the operation phase.

Job category	Expected workforce	Expected local workforce	Expected % local
Managers	2	0	0%
Professional	6	0	0%
Operator	22	22	100%
Technicians	28	28	100%
Apprentice	4	4	100%
Plant and machine operator	6	6	100%
Clerical	4	4	100%
Elementary occupation	6	6	100%
Cook	2	2	100%
Total	80	72	91%

Professional (ex. HS Coordinator and Metallurgist)

Operator (ex. Excavator operator, Truck operator, Driller and wheel loader operator)

Technician (ex. Blaster, Sample preparation, Analyst and Port worker).

The impact of the direct employment during operation are characterised as positive medium to high, with the operation of mine and processing plant being the activities that will create the largest amount of jobs. A majority of job positions are available to local workers (from Kommune Kujalleq municipality), but measures should be taken in order to maximise the final share of local employment. While the duration of the employment will cease with the completion of project, benefits related to employment, such as enhancement of qualifications and experience, pension and savings, etc. will last beyond the employment time.

Business life

TANBREEZ Mining will outsource activities related to transportation of goods and staff as well as servicing of the camp, including catering, cleaning of the camp and offices, and laundry.

The significance of impacts on business life is rated high compared to direct employment in Greenland.

The main direct positive impact on business life is expected to be related to the following areas:

- Transport of goods and staff
- Services to the camp
- Provision of fuel

- Provision of goods and food
- Provision of technical services

The same trend is expected for indirect impacts on business life due to expenditure by workers. The positive impact will be more noticeable in small and medium size towns, particularly in Nanortalik, Narsaq and Qaqortoq, but will be diluted if the workers' residences are, for example, in Nuuk or Sisimiut.

For the planned and on-going industrial activities in Greenland (Alcoa project and oil activities) the employment multiplier factor has been estimated. For the Nalunaq Gold Mine project, the employment multiplier factor has been estimated to 1.3 – 1.6. This means that for each job created at the mine, 0.3 – 0.6 jobs will be created in the community. It can be concluded that, while some induced jobs will be created by the project, these are expected to be of low significance in comparison to direct jobs and indirect jobs created by business opportunities.

The overall impact for the business life is assessed to be positive medium to high.

Taxes and revenues

The main direct economic benefits from the TANBREEZ Mining project arrive from income taxes from local employers and international experts, who will be liable to pay tax in Greenland, according to the Greenland tax regulations (Act on income taxes no 12 of 2 November 2006 and amendments of no 3 of 30 November 2009 and no 20 of 18 December 2010).

In general, there is a positive medium to high income impact due to taxes and revenues. These will come in the form of taxes (e.g. profits), income tax from employment salaries, direct local employment and boosts to local businesses (also leading to further increases in tax revenues).

Education and training

In Greenland, there is a general need and wish to improve and further develop the skills and competences of labour, in order to be prepared for potential future activities e.g. in the extraction industry.

Projects such as TANBREEZ mining are considered to contribute to the general development of skills in Greenland. This development is characterised as medium positive, as knowledge and experience of mining projects are relatively low in Greenland.

Specific job related training in truck driving and operations related to the processing plant, are characterised as medium positive, as the level of education in Greenland is relatively low.

Social and health services

The social services in Kommune Kujalleq municipality are under pressure at the moment. This is due to high seasonal unemployment and a lack of sufficient funding to support the unemployment. The project will have a positive effect on the unemployment rate and the seasonal unemployment, which in turn will help the social unemployment services.

The health services in Kommune Kujalleq municipality and Greenland in general are under pressure, due to infrastructure, a lack of sufficient personnel resources as well as a lack of funds.

Social aspects – imbalance between towns

An imbalance between the benefit and impacts from the project for the two towns, Qaqortoq and Narsaq is likely to happen. It has been questioned if Qaqortoq will benefit relatively more from the project than Narsaq. The transportation schedules are planned to be equal from both towns to the mine site. Furthermore, the establishment of a storage facility in Narsaq is considered which could also create some activities in Narsaq.

Social aspect - vulnerable groups

In the field work performed in Narsaq and Qaqortoq, the focus groups have identified families with drug and alcohol abuse, as well as pregnant young women as the most vulnerable groups in the community.

The implications of alcohol and substance abuse, as well as the increased number of early pregnancies are serious for a small community. The scope of this assessment and the information collected during the field research do not provide enough of a base for predicting the significance of these social risks. However, due to the public concern expressed in the interviews and consultations, and applying the Pre-cautionary principle which should govern the assessment of social risk, the implications assessed as negative low to medium and preventive and mitigation measures proposed.

Health - Occupational health and risk of accidents

There is a risk of accidents during transportation of goods, staff and concentrate, mainly due to the harsh weather conditions in Greenland and the involvement of heavy machinery along with human error. Although the implications are permanent, the risks of accidents are considered to be negative low based on an overall assessment.

Operational risks from the mine and the processing plant are mainly during operation of heavy machinery, explosives, and processing along with human error and harsh weather conditions. The risks of accidents from operation are therefore assessed to be negative medium.

A health screening will be required before employment at TANBREEZ in order to ensure that the workers do not have any Sexual Transmitted Disease (STD) or Tuberculosis (TB) when they start working at the mine project.

Health - public health

A mining project's operations will have an impact on the health and quality of life of the employees and the public in general. These negative impacts are often related to interactions between the local community and the influx of staff.

At the TANBREEZ mining project the employees are expected to be mainly from the Kommune Kujalleq municipality, and the expected number of international staff and from other parts of Greenland will be limited and therefore the risk of impacts on public health due to increase on STDs, TB, unwanted pregnancies, and abortions is considered to be low.

However, it is necessary to monitor the incidence of TB, STDs and unwanted pregnancies as important public health indicators. If the situation changes and more international staff and workers outside the community will be engaged to the project, the potential impact needs to be assessed further.

Based on the pre-cautionary principle and the advantages of a strong preventive and corrective health and life style campaigns among the workers, the impacts on health are assessed to be medium negative.

Environmental impact

The Environmental Impact Assessment (EIA) assesses if the planned mine project will have a negative impact on the environment. The Greenlandic guidelines for EIAs require identification of potential pollution and disturbance impacts. A number of specific studies have been carried out to assist the EIA process. These include studies of the tailings material and waste rock to determine if heavy metals would leach out if the materials are deposited in water. A study has tested if the tailings could leach toxic substances. Staff from Greenland National Museum have surveyed the project area for cultural heritage sites and biologists have studied the flora and fauna. All these studies are attached as annexes to the EIA report. Other sources of information for the EIA process include previous studies in the area and studies from other mine projects in the Arctic.

Information about the planned mine project and the project area including its biodiversity was compiled and all activities of the mine project that can potentially be a source of disturbance or pollution have been identified. For each potential impact the receptor and potential pathways have been identified.

The tailings and waste rock are potential sources of pollution because toxic heavy metals might leach out if the material is suspended in water. If this happens, deposition of tailings or waste rock in Fostersø could lead to pollution of the lake and the streams and fjord downstream from lake. This could harm fish in the river and seals in the fjord. To test this scenario, the results of the chemical analyses of tailings and waste rock have been combined with a hydrological model of the freshwater system to assess the potential release of metals from tailings deposited in Fostersø. The model shows that concentrations of metals will increase over the operation period as the lake fills. After 10 years of operation the content of lead will marginally exceed the Greenland water quality guideline (GWQG) values. The concentrations of other metals in the lake water will be below the GWQG. Since Fostersø and the streams and rivers downstream the lake already have natural high lead contents the impact will be very small. The outflow from Fostersø contributes to about 20% of the water in Lakseelv and it is predicted that elevated lead levels in water from Fostersø will not be detectable in Lakseelv due to the large dilution. The consequence of the increase in lead in Fostersø is therefore assessed as insignificant.

Similar assessments have been carried out of the entire suite of potential impacts on play in connection with the TANBREEZ project. The potential disturbance and loss of habitat when for example vegetation is overlaid by buildings has been assessed for marine, freshwater and land animals and plants. Also pollution from other potential sources than tailings and waste has been assessed. This includes accidental release hazardous material such as oil and other hazardous waste.

The conclusion is that if the mitigating measures proposed in this EIA report are implemented and the mining activities are carried out in accordance to good environmental practice then the significance of the impacts on the environment will be low. No significant contamination by toxic materials or other pollutants is expected to take place. Dust dispersal will be small and local and no key animals (such as White-tailed eagle and Arctic char) or plants are believed to decline or be displaced because of the mine project.

Cultural and natural values

Greenlandic cultural and natural values are closely connected to social values as the traditional and cultural activities involves many social events and a rich social life compared to western societies. Hunting and fishing, naming traditions, and traditional clothing are currently being replaced by western influences, but are still well practised.

The impact on sites of cultural importance is considered medium, as the destruction during the construction phase of some of the sites are unavoidable. Nevertheless, none of the archaeological findings are considered unique or outstanding. Even the unique Hvalsøe ruins are outside and out of sight of the project area. The company responsible for design and construction, MTH, has been in dialogue with municipal and national authorities in order to find an acceptable mitigation measure.

Regarding the use of land, a report on Local use of natural resources in the “Killavaat Alannuat” region was finalised by the consultant company Orbicon in November 2010. This report describes activities in relation to present use of natural resources in this area. With “local use” is understood a broad range of activities related to fishery, hunting, sheep farming, stone collection, tourism, and recreational use by local inhabitants.

The conclusion of the Local use report states that overall mining activities will have little negative impact on local use of natural resources. The findings and conclusions of the Local Use study were confirmed during the interviews and focus groups research activities performed by the SIA team.

The low negative impacts will be perceived from construction phase and through the life of the mine.

Proposed mitigations

Mitigation measures will be identified for all impacts likely to occur, adverse in nature and significant enough to require mitigation (medium and high-level (negative) impacts) in order to mitigate or eliminate such impacts.

Table 1.2 Overview of Impacts, proposed mitigations and impacts after mitigation.

Description of the Impact	Existing mitigation	Proposed mitigation	Impact after mitigation
Economic environment			
Employment before/during construction phase (direct)			
Engagement of the local workforce from the beginning of the construction phase. +L	<p>Training course at the School of Minerals and Petroleum.</p> <p>Mapping of existing competences in Kommune Kujalleq as a pilot study for Greenland.</p>	<ul style="list-style-type: none"> Assistance in understanding of requirements to the coming workplace, like health and safety issues, financials issues etc. in corporation with the local authorities. Elaborate a description of the requirement for the different work and job categories for the construction phase Undertake an assessment of training needs in corporation with the local authorities. Develop human resources development program and benefit packages to make TANBREEZ an attractive work place for local workers¹ Design a cross-cultural workshop to enhance intercultural understanding among staff and minimise social impact in surrounding communities Ensure transport arrangements for staff both from Narsaq and Qaqortoq 	The goal is that 75% of local personnel engaged in the project +H
Employment before/during operation phase (direct)			
<p>The impact of the direct employment during operation are characterised as positive medium to high, being operation of mine and processing plant the activities creating the highest amount of jobs. A majority of job positions is available to local workers (from Kommune Kujalleq).</p> <p>The goal is to offer 85-90% of the job to the local workforce. +H</p>	<p>Training course at the School of Minerals and Petroleum.</p> <p>Mapping of existing competences in Kommune Kujalleq as a pilot study for Greenland.</p>	<ul style="list-style-type: none"> Develop on-the-job training for the required job categories Elaborate a description of the requirement for the different job categories for the operation phase Undertake a gender sensitive workforce assessment, in order to ensure that both women and men will apply for the jobs Develop a program as a part of the screening process during the recruitment of workforce for the operation phase. Develop human resources development program and benefit packages to make TANBREEZ an attractive work place for local workers 	The goal is that approx. 90% of local personnel engaged in the project +H
Business opportunities			
<p>Camp management and transport will be outsourced to local businesses</p> <p>Provision of service from the local business will be requested on ad-hoc basis.</p>	<p>Sulisitsisut (GA) and its committees creates initiatives to promote local business for mining companies (network workshops).</p>	<p>All measures are based on the condition that they are economically viable, or cost competitive, or not detrimental to the overall cost of the contract.</p> <ul style="list-style-type: none"> Establishment of a forum for local businesses together with the local authorities. This forum will be used before and during the tender process to provide information and clarification of the coming tenders. Tender period for various tender packages including Q&A sessions. Preferential contracting practices for Greenlandic contractors (locally based in first place and secondly in Greenland) of logistics, transport of staff and goods, fuel etc. including sensitive elaboration of tender documents, specifications, etc. 	<p>Camp management and transport will be outsourced to local businesses</p> <p>Provision of service from the local business will be requested on ad-hoc basis.</p>

¹ Ensuring that local workers are able to continue their traditional way of living, within the frame of the rotation schemes of TANBREEZ and the existing logistic opportunities. If the logistic opportunities change (new roads, airport etc) can more flexibility occur in the rotation schemes.

Description of the Impact	Existing mitigation	Proposed mitigation	Impact after mitigation
+H		<ul style="list-style-type: none"> Unbundling of contracts for services and supplies to camp where no cost hindrance to the project. Preferential purchase of local goods and services to the mine camp. Laundry, catering, office supplies, IT maintenance, etc. Requirement in contract with the providers of catering services to supply local/traditional food. 	+H
Salary boost			
TANBREEZ will in general stimulate the local economic activities. +M	Existing pensions and insurance arrangement.	<ul style="list-style-type: none"> Employment packages that include benefits other than wages (as opportunities for further training and education). Establish workshops with financial actors in order to provide support for direct employees and their families. 	TANBREEZ will in general stimulate the local economic activities. +H
Education			
The project will Improve the level of education in Greenland, both with regard to general development of general skills and specific training. +M		<ul style="list-style-type: none"> Develop a recruitment program in cooperation with local authorities Training programme for staff on specific duties, safety, etc. General training programmes and on-the-job training for staff will be a part of all employees work profile Early development of a reinsertion program for workers after mine closure in cooperation with local authorities 	The proposed mitigations measures will even further stimulate the improvement of education in Greenland, both with regard to general development of general skills and specific training. +H
Public service and development plans			
Existing infrastructure and plans			
Improve the local infrastructure for the local communities -L	Local and national plans and programmes	<ul style="list-style-type: none"> Develop a contingency plan for transport/housing in case of bad weather. Develop an overview of the available transport opportunities (boats, helicopters and flights). 	-L
Social health and services			
The increased pressure on the health system is expected to be negative partly because of the expected increased sexually transmitted diseases and other infectious diseases -L	Local and national plans and programmes	<ul style="list-style-type: none"> Develop clear criteria and conditions for use of local health services and communicate these to health providers all in cooperation with local authorities and other major local work places. Establish contact with local health service and work out cooperation between both parties and other major local work places. 	-L
Health			
Occupational health and risk of accidents			
The risks of operation of mine and processing plant are mainly during operation of heavy machinery,	Regulations which promote instruction and supervisions in order to reduce the	<ul style="list-style-type: none"> Develop and implement health and safety management plan for the mine site for staff. Establish health and safety committee with joint participation of workers that help to 	

Description of the Impact	Existing mitigation	Proposed mitigation	Impact after mitigation
explosives, and processing along with human error and harsh weather conditions and are assessed to be negative medium. -M	accidents and to focus on a health and safety working environment.	monitor and advice health and safety programs on mine site. <ul style="list-style-type: none"> • Training of all staff on safety and emergency response on the mine site. • Contractual requirements to providers of transportation services (Air Greenland, charter boats for staff, etc.) regarding safety measures, response time, etc. in order to minimise risk of accidents, appropriate and timely response in case of accidents, emergency evacuation from mine site, etc. • Pre-notification of operations and traffic of vessels to authorities., • Develop emergency and contingency plans in coordination with the Contingency Committee for Greenland (Beredskabsstyrelsen) and other major local workplaces. 	-L
Public health			
The risk of impacts on public health due to increase on STDs and abortions is considered to be low, as the majority of the workforce will be from Kommune Kommune Kujalleq. Based on the pre-cautionary principle and the advantages of a strong preventive and corrective health and life style campaigns among the workers, the impacts on health are assessed to be medium negative. -M	Community health campaigns.	<ul style="list-style-type: none"> • Promotion and availability of healthy nutrition and physical activity. • Initial and regular health checks for employees. Develop and implement strategies for making healthy choice the easy choice at the mine site: healthy food, local food, attractive and available exercise program, hand washing facilities etc, for staff. Counselling services for staff. Active part of community health campaigns (e.g. safe sex, alcohol, non-smoking). 	The impacts on public health are considered to be low. -L
Cultural and natural resources			
The impact on sites of cultural importance is considered medium, as the destruction during the construction phase of some of the sites are unavoidable. Nevertheless, none of the archaeological findings is considered unique or upstanding. The Hvalsøe ruins are located outside and out of sight to and from the project area. -M	Regular studying and registering of the sites.	<ul style="list-style-type: none"> • Contact the Greenlandic National Museum and Archive for them to further study and register the affected archaeological features. 	After register of the sites the impact are assessed to be neutral as none of the findings is considered unique or upstanding -L

Mitigation measures will be identified for all impacts likely to occur, adverse in nature and significant enough to require mitigation (medium and high-level (negative) impacts) in order to mitigate or eliminate such impacts.

The result of the assessment is presented using the following colour codes indicating whether the impact is positive, neutral or negative and whether the significance of the impact is low, medium or high.

	low	Medium	High
Positive	+L	+M	+H
Neutral	0		
Negative	-L	-M	-H

An overview of the impacts matrix, identifying areas with high, medium and low impacts before the mitigation measures are applied is presented below.

Impact categories	Impacts	Impact after mitigation
Employment (construction)	+L	+H
Employment (operation)	+H	+H
Business opportunities	+L	+H
Salary boost	+M	+H
Education and training	+M	+H
Existing infrastructure and plans	-L	-L
Social health and services	-L	-L
Occupational health and risk of accidents	-M	-L
Public health	-M	-L
Cultural and natural resources	-M	-L

Public Participation

Based on the Guidelines from the BMP (2009) and local knowledge has relevant stakeholders been identified for the TANBREEZ project. The identified stakeholders were invited to the scoping workshops in April 2010, which took place in Narsaq and in Qaqortoq.

In June 2010 began the collection of socio-economic and social background conditions, based on the result of the scoping phase. In Narsaq and Qaqortoq was focus groups appointed, representing larger groups of the community. Furthermore, contact to representatives in Nanortalik was made by phone.

Additionally, an information meeting for stakeholders present in Nuuk took also place in June 2010.