

1 Non-Technical Summary

1.1 English

Introduction

Hudson Resources Inc. (Hudson) is a Canadian mineral exploration company developing the White Mountain (Naajat) Anorthosite Project (the Project). The Project is situated on the central west coast of Greenland at approximately latitude 66°33'N (approximately the Arctic Circle) and longitude 52°10'W. It is approximately 80 km southwest of the international airport at Kangerlussuaq and approximately 80 km to the southeast of Sisimiut, the nearest town. Hudson has a 100% interest in the 95 sq. km Naajat exploration license area (EL 2002/06).

Hudson is proposing to establish a mining and processing operation at the Naajat property (Figure 1.1). The Project includes:

- Open pit mine;
- Processing facility;
- Access roads
- Tailings disposal area
- Port
- Infrastructure and camp complex

Hudson plans to mine approximately 285,000 tonnes of ore annually and transport 200,000 tonnes of processed material to Europe, North America and Asia. The material will be a key ingredient in the manufacturing of E-Glass fiberglass. Approximately 85,000 tonnes of waste material will be safely disposed of on site annually.

Along with this Environmental Impact Assessment (EIA), Hudson has submitted an Social Impact Assessment (SIA) and Feasibility Study as its application for an exploitation license to the Government of Greenland's Mineral Licenses and Safety Authority (MLSA). If successful, license issuance will be followed by a construction period beginning in early 2015. The operation is expected to commence in the second half of 2015 or early 2016, and continue for 20+ years. The life of the operation is only limited by the availability and sustainability of international markets to sell the anorthosite material. There are currently sufficient resources defined for at least 120 years of operation.

The EIA has been carried out in accordance with the official guideline of the Mineral Licensing and Safety Agency, "*BMP guidelines – for preparing an Environmental Impact Assessment (EIA) Report for Mineral Exploitation in Greenland*" 2nd Edition, January

Environmental Impact Assessment (EIA) - White Mountain Anorthosite Mining Project

2011, (BMP, 2011). This section is the Non-technical Summary (NTS) of the EIA which has been prepared as part of the EIA process.

The Project

The White Mountain license area extends to approximately 95 sq. km. The physical components of the Project include the following: mine, port, access road, processing facility, worker camp, and the tailings disposal area.

White Mountain (Naajat EL) Project Location

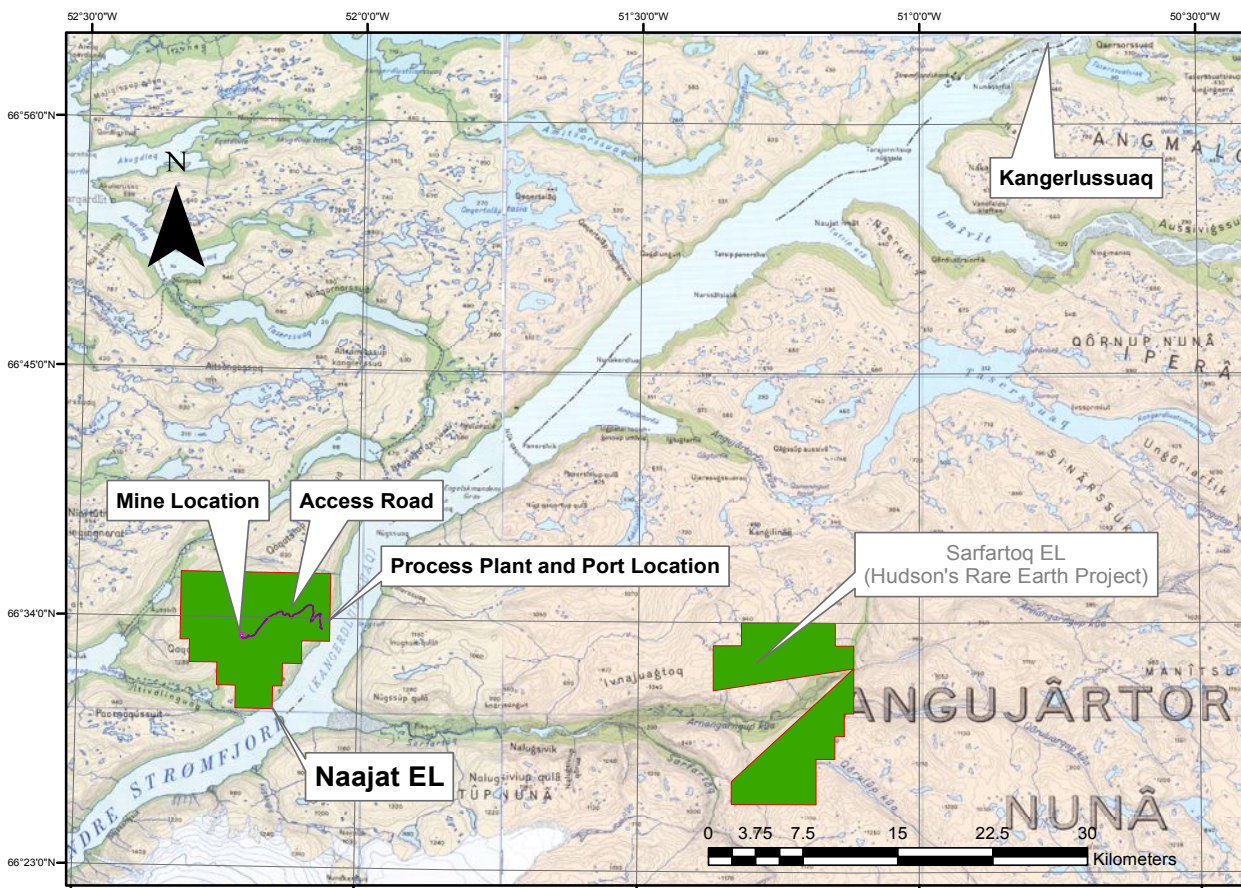


Figure 1.1 - Project Location

The project will extract the ore from an open pit mine situated approximately 5 km north of the Sondre Stromfjord. Mining would be by drilling and blasting without the need for stripping of surface material or waste rock. Approximately 30 full time positions are expected to be required at the mine site during operation. After taking into account rotating two shifts, approximately 57 people are required, including 10 contractor positions. The work season for the mining operations will be 9 months, and the processing plant will run 10 months per year. Hudson's objective is to have a

Greenlandic workforce making up a minimum of 80% of all positions (or 46 employees). The mine life is expected to exceed 20 years.



Figure 1.2 - Project Location West Coast of Greenland

The rock will undergo initial crushing at the pit site before transported by haul truck along a new 10 km haul road to a process plant to be built next to the Sondre Stromfjord. A new port facility will be established adjacent to the plant. The port will be constructed of blasted rock. The rock used for port and road construction is a granite which is prevalent in the area, is benign and does not contain any sulphides and only minor metals. It is expected that the port will load ships eight months per year, and will not initially operate December through March due to potential ice conditions.

During the processing stage approximately 30 percent of the ore (85,000 tonnes annually) will be rejected due to the magnetic separation process which is required to produce a commercial product. The rejected material does not contain any sulphides or heavy metals and is therefore not acid generating and can be safely disposed of underwater. This material will be hauled by truck for disposal in a lake that is situated between the mine and the port. The lake is located at the head of a lake system that eventually discharges into the Itilleq Fjord.

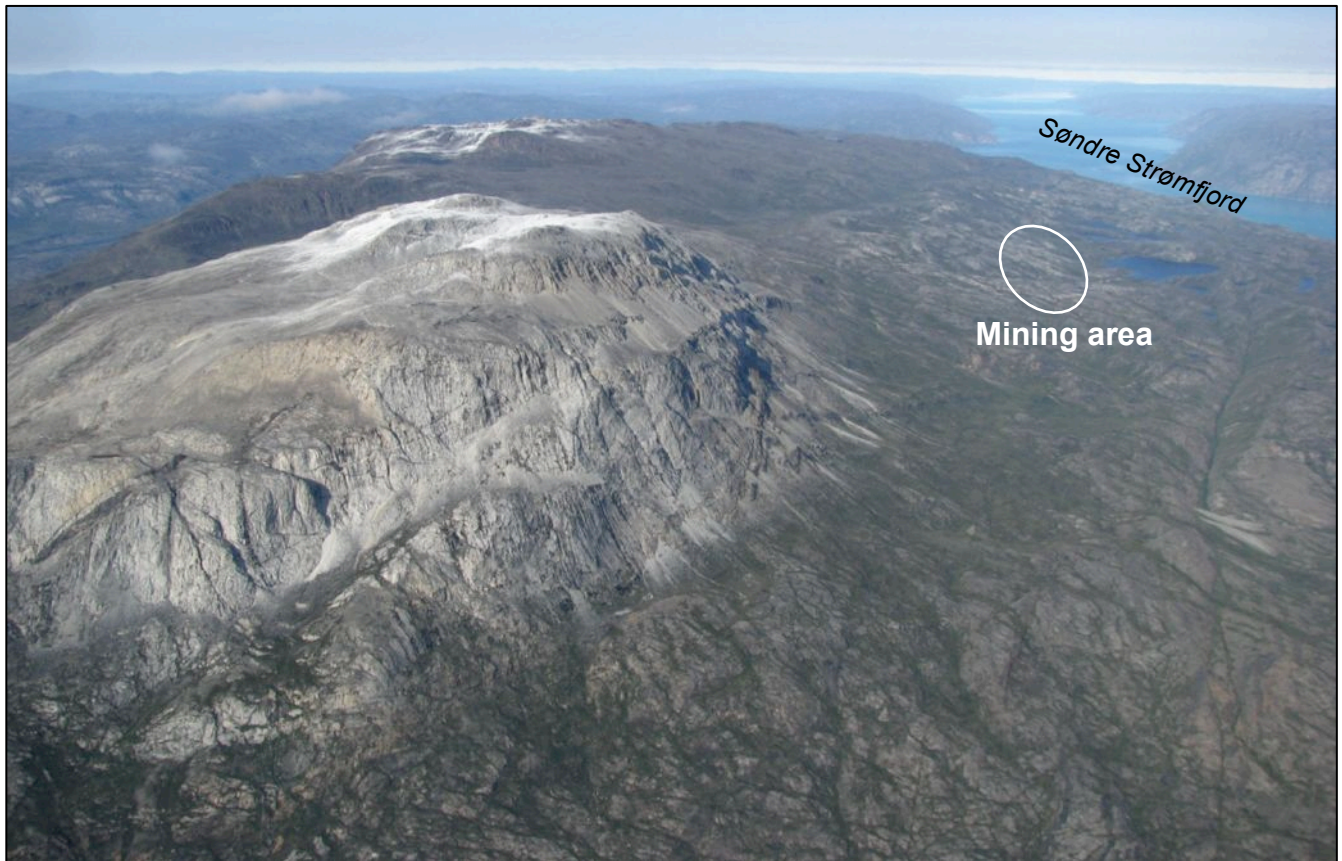


Figure 1.3 - Aerial View of the Project Area looking towards East

The project facilities will consist of a housing complex for up to 40 people (enough to cover on-site staff plus overflow), offices, workshops and a processing plant, where the ore will undergo additional crushing and magnetic separation. The material will go from the process plant by conveyor to a covered storage facility adjacent to the dock.

Power for the process plant, truck shop and accommodation buildings will be provided by two 400 kW diesel generators. A separate 25 kW generator is planned to meet power requirements at the quarry.

On completion of mining operations, a closure plan and reclamation plan will be implemented (Section 10).

The Existing Environment

The Project area includes the mine and all infrastructure associated with the mining activities. Major categories of study included: General Environment, Emissions, Water and Wastewater, Freshwater, Fuel Spillage, Terrestrial Ecology, Freshwater Ecology, Marine Ecology, Cultural Heritage, and Recreational Activities. Within each of these

major categories, typical study subjects included: noise, dust, flora, fauna, habitat, hunting and fishing.

The conclusion of the report is that there will be a negligible to minor residual effect as a result of the Project. An example of some of the issues are present below.

Terrestrial Environment

Sites of International and National Conservation Importance

The Government of Greenland in collaboration with international organizations has identified areas of biological importance in Greenland's marine and coastal environment. The designated protected area closest to the proposed operations is on the opposite side of Sondre Stromfjord, approximately 70 km east of the new port facility.

The Government has identified several "Areas Important to Wildlife" where mineral and petroleum exploration and extraction activities are regulated in accordance with the Mineral Extraction Act. These areas include bird colonies and adjacent buffer zones. Eleven sites throughout Greenland have been identified by the Government of Greenland for inclusion in the Ramsar list of Wetlands of International Importance Ramsar sites.

None of these sites occur in the vicinity of Sondre Stromfjord and the Project will not effect them in any way.

Birds

Two protection zones for seabird colonies (eider) have been identified, one each in Sondre Stromfjord and Itilleq Fjord. Additional protection zones have also been designated around critical nesting areas for White fronted geese. The closest of these is approximately 25 km from the mine site.

The project will not conduct any activities in the Itilleq Fjord.

The White fronted Goose breeds only in the area between the Maniitsoq Icecap and Upernavik and is considered endangered according to the Greenlandic Red list. A single pair of geese has been noted to be nesting in a lake a few kilometers from the pit, and the valley south-west of the project area hosts a known resting locality for migratory white fronted geese. Both of these locations are situated a reasonable distance from the proposed activities. The proposed project site at White Mountain holds relatively few other bird species, all of which are common and widespread in West Greenland.

The Project is only expected to have a minor residual effect on birds.

Flora and Fauna

Terrestrial wildlife in the area is limited to caribou, arctic hare, arctic fox and muskox (the latter is rare in the area). As a consequence of the proposed activities some of these

mammals are expected to relocate, but according to international studies, the relocation will be limited (less than 5 km).

The Project is only expected to have a minor residual effect on mammals.

Freshwater Environment

Analysis of water quality samples from the project area indicated naturally occurring concentrations of copper (at each of 5 sampling locations) and nickel (one sampling location) which exceed freshwater quality guideline values. Concentration levels of other metals were below the relevant guideline values.

Two species of freshwater fish are abundant in Greenland, the Arctic Char and the Three-spined Stickleback; both species are widely present in the rivers and lakes of the project area.

The Project is only expected to have a negligible/minor residual effect on fish and will not effect the population in any way.

Marine Environment

The marine environment around the project area contains two fjords that differ significantly. The Sondre Stromfjord receives glacial deposits, whilst the Itilleq Fjord receives freshwater outflow from the project area. The seabed of Sondre Stromfjord is greatly influenced by input of glacial material and the tidal current. This results in variability in the seabed with some areas with bedrock area and others filled with silted sediment. Both fjords are classified as having a sheltered coast with no drifting ice.

The most abundant coastal fish species in both fjords are Greenland Cod, Sculpin and Atlantic Cod. Harbour Seal is a protected species in Greenland and is designated as critically endangered. The Harbour Seal is dependent on access to haul-out locations for reproduction and moulting; this was last recorded in the former haul-out location beside Kangerlussuaq Airport in 1995-97. Several other species of seals and whales are believed to appear in the outer Sondre Stromfjord.

The Project is only expected to have a negligible/minor residual effect on flora and fauna in the Sondre Stromfjord. The Project will not effect the Itilleq Fjord.

Cultural Heritage

Twelve sites of archaeological importance have been identified in the area between the mine site and the port. Eight of these sites are protected under Greenland's conservation laws.

It should be noted that Arnangarnup Qoorua (the Paradise Valley), which is located approximately 15 km to the southeast of the project, was proposed as a potential candidate for a UNESCO World Heritage Area in 2003 due to its cultural significance. It

has not been selected for world heritage status to date, and given that the White Mountain project will not have any impact on the Paradise Valley, it is not seen as an issue for development.

The Project is only expected to have a minor residual effect on archaeological remnants.

Mitigation Measures

The Project, as first envisioned, has been amended as a result findings from the EIA. These changes to avoid or reduce potential environmental effects include:

- Previously unrecorded orchids in the area have been identified, marked and avoided;
- The mine/port haul route has been aligned to avoid identified archaeological remnants; and
- In accordance with the relevant international convention, ships' ballast water will be changed in mid-ocean and not in the fjord.

An Environmental Management Plan (EMP) will be developed for the project, and will address the following areas/activities:

- Open pit mining operation
- Traffic
- Ore processing and infrastructure
- Water supply
- Offices and associated support facilities
- Maintenance activities associated with the above areas

The EMP will describe how the risks identified in the EIA will be mitigated during the construction, operation and decommissioning phases of the mine project. The EMP will be developed from the EIA findings and analysis and will include the following:

- the measures to be taken by Hudson and it's contractors during all phases of the project to eliminate or avoid adverse environmental impacts identified in the EIA, or to reduce them to acceptable levels,
- the actions needed to implement these measures, and
- the people responsible for implementing those actions.

The EMP will include each of the following:

- Health and Safety Plan
- Dust Management Plan
- Noise Management Plan
- Tailing Management Plan
- Public Safety Plan

Environmental Impact Assessment (EIA) - White Mountain Anorthosite Mining Project

- Waste Management Plan
- Spill Response Plan
- Decommissioning Plan
- Spill Response Plan
- Decommissioning Plan

Environmental Effects

The EIA has taken account of the measures proposed to avoid or reduce significant environmental effects. The findings of the EIA are summarized in the following table.

Table 1.1 - Summary of Environments Impacts

VALUED ECOSYSTEM COMPONENT (VEC)	POSSIBLE EFFECT	POSSIBLE IMPACT	SIGNIFICANCE
Archaeological remnants	Cultural Heritage	Physical	Minor
Birds	Oil and Chemical Spill	Loss of insulation	Minor
Birds	Loss of Terrestrial Habitat	Disturbing of nesting and resting areas for birds	Minor
Changing bathymetry	Tailings Disposal	Discarding tailings in Lake A	Minor
Char fishing	Human Activites	Reduced stock or increased content of chemicals	Minor
Contamination elements	Freshwater	Discarding tailings in Lake A	Minor
Fish	Oil and Chemical Spill	Contamination	Minor
Fish	Invertebrates	Physical due to affected lake area	Minor
Fish	Invertebrates	Tailings deposit Suspended solids	Negligible
Fish	Invertebrates	Tailings deposit Contamination	Minor
Fish	Marine Fish	Physical due to Contaminants	Negligible
Flora	Emissions	Fertilizing	Minor
Flora	Dust	Shadowing	Minor
Habitat changes	Freshwater	Discarding tailings in Lake A	Minor
Human Health	Noise	Hearing damages	Minor
Human Health	Dust	Respiratory diseases	Minor
Human Health	Emissions	Respiratory Diseases	Minor
Hunting and fishing	Noise	Relocation of wildlife due to disturbance	Moderate
Hunting and fishing	Noise	Disturbance from Helicopter	Negligible
Invertebrate	Invertebrates	Physical due to affected lake area	Minor
Invertebrate	Invertebrates	Tailings deposit Suspended solids	Negligible
Invertebrate	Invertebrates	Tailings deposit Suspended solids	Minor
Invertebrate	Marine Invertebrates	Physical due to Contaminants	Negligible
Lake habitats	Changes of Freshwater Habitats	Physical	Negligible
Mammals	Mining Activities	Disturbance and re-location	Minor
Mammals	Loss of terrestrial habitat	Relocation due to size of area and Noise	Minor
Mammals	Marine Mamals	Physical due to noise	Negligible
Mammals	Marine Mamals	Physical due to Contaminants	Negligible
Marine Fauna	Wastewater	Contamination	Minor
Marine Flora	Wastewater	Degradation of Flora	Minor
Marine habitat	Marine ecology	Physical due to Seabed changes	Negligible
Marine habitat	Marine ecology	Physical due to Nutrient increase	Negligible
Marine habitat	Marine ecology	Physical due to noise	Negligible
Marine Mammals	Oil and Chemical Spill	Contamination	Minor
River habitats	Changes of Freshwater Habitats	Physical	Negligible
seizing area	Tailings Disposal	Discarding tailings in Lake A	Minor
Suspended solids	Freshwater	Discarding tailings in Lake A	Minor
Topography	Mine Site	Physical	Minor
Topography	Infrastructure	Physical	Minor
visual	Tailings Disposal	Discarding tailings in Lake A	Minor
visual	Tailings Disposal, Post Closure	Discarding tailings in Lake A	Negligible
Water Quality	Emissions	Eutrophication	Minor
Water quality	Wastewater	Reduced quality	Minor
Wildlife	Dust	Coverage of food	Minor
Wildlife	Noise	Scaring away	Minor

Cumulative Effects

As there are no other developments or projects within or close to the project area, there will not be any cumulative environmental effects.

Conclusions

Areas of international and national importance for flora and fauna will not be disturbed by the project. The project will result in some disturbance of caribou and muskox in the project area at a distance of up to five km from the infrastructure components.

This disturbance will have a minor effect on the already sparse hunting activities in the area.

The deposition of waste rock material in nearby lakes is anticipated to have a negligible effect on lake and river habitats, and a negligible/minor effect on freshwater invertebrates. The waste rock material does not contain any significant metal content and the leaching of metals is regarded as low.

The Project is not expected to effect fishing in the area.

Following completion of mining activities, closure of the mine will include the removal of all infrastructural components. The remains of the road will be left in place, although ripped to encourage re-vegetation.

A comprehensive environmental management plan and monitoring program will ensure that emerging and unforeseen problems will be handled in a timely and appropriate manner.