

**APPENDIX F**  
**PRE-CONSTRUCTION STAGING SUPPLEMENTAL INFORMATION**



**BAFFINLAND IRON MINES CORPORATION  
MARY RIVER PROJECT**

**SUPPLEMENTAL INFORMATION FOR  
PRE-CONSTRUCTION STAGING**

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**SECTION 1.0 - INTRODUCTION**

The Mary River Project ("the Project") is a proposed iron ore mine and associated facilities located on North Baffin Island, in the Qikiqtani Region of Nunavut (Figure 1.1). Baffin Island is home to Inuit, who enjoy a culture that is unique and traditional to arctic regions. The land where the Project is located is important to Inuit culture, heritage, and their continued well-being in that these people use the resources on the land and from the sea for both their subsistence and in preserving their traditional way of life.

The Project involves the construction, operation, closure, and reclamation of an 18 million tonne-per-annum (Mt/a) open pit mine. The high-grade iron ore to be mined is suitable for international shipment after only crushing and screening and as such, no chemical processing facilities are required for this Project. A railway system will transport the ore from the mine area to an all-season deep-water port and ship loading facility at Steensby Inlet where the ore will be loaded into ore carriers for overseas shipment through Foxe Basin. A dedicated fleet of cape-sized ore carriers, capable of breaking ice, will be chartered by Baffinland from a consortium of ship owners organized by Fednav. Some non-icebreaking ore carriers and conventional ships will also be used during the open water season.

All major Project components will operate year round and, based on the currently-defined iron ore reserve, will continue to operate for about 21 years. Geological conditions suggest that additional ore may be delineated as exploration continues, potentially extending the life and/or increasing the production rate of the Project.

The Mary River site is located about 160 km south of the community of Pond Inlet (Mittimatalik) and 1000 km northwest of Iqaluit, the capital of Nunavut. Project facilities will be sited in the mine area at Mary River and port area at Steensby Inlet, with a railway line and access road connecting the two. Marine access and shipping through the construction phase and periodically during operation will occur seasonally through Milne Inlet and the existing Milne Inlet Tote Road will therefore be used periodically to access Mary River during frozen conditions. Shipping through Steensby Inlet will be seasonal through construction and year-round through operation. Access to the Project sites for personnel will be by chartered aircraft.

Baffinland submitted its "Development Proposal for the Mary River Project" (the Development Proposal) to the Nunavut Impact Review Board (NIRB), the Nunavut Planning Commission (NPC), and the Nunavut Water Board (NWB) in March, 2008. The Development Proposal described how Baffinland plans to construct, operate, close, and reclaim the Mary River Project in conformance with Nunavut and Canadian laws and regulations and to the benefit of the region and to Canada.

Constructing and operating major capital projects in the arctic presents some very challenging logistics. Initial scheduling must consider the short open water periods for strategic material and supply deliveries for early works and also the activity-limiting bitter cold and darkness during the winter months until all-season

facilities can be constructed and brought on-line. Among the information presented in the Development Proposal is the notion that Baffinland will request an exemption pursuant to Section 12.10.2(b) of the Nunavut Land Claims Agreement (NCLA) to allow for pre-construction staging of certain equipment and materials prior to completion of a NIRB Part 5 review. This clause of the NLCA gives NIRB the authority to allow certain Project activities, such as this pre-construction staging program, prior to the issuance of the Project Certificate. Pre-construction staging will allow the necessary equipment and materials to be available on site to facilitate the commencement of construction as soon as the Project Certificate and authorizing permits are received.

This document describes the activities and areas that will be involved in the pre-construction staging, as well as monitoring and mitigation activities, most of which are already in place as part of the permitted exploration and bulk sampling programs.

## **SECTION 2.0 - PRE-CONSTRUCTION STAGING ACTIVITIES**

To allow for immediate kickoff of construction activities upon receipt of the Project's construction permits (anticipated in July 2010), it will be necessary to stage construction equipment, construction camps, fuel and materials at Milne and Steensby Inlets during the 2009 open water shipping season, approximately August through early October (Figure 1.2).

The pre-construction sealift will involve an estimated seven ships and two accommodation barges (or ship(s)), transporting heavy equipment, camp facilities, and a total of 9.4 million litres (ML) of fuel to Milne Inlet and Steensby Inlet. Fuel will be transported to site either in 20,000 litre (L) iso-containers or in a fuel barge or tanker. Table 2.1 provides a preliminary list of the equipment and materials that will be delivered to both Milne Inlet and Steensby Inlet in 2009.

The areas used for pre-construction staging at Milne Inlet and Mary River will be confined to currently developed areas, with no additional land disturbances. Areas to be used at Steensby Inlet include the general location of the existing camp as well as several additional, smaller areas. Staging areas at Steensby Inlet form a small part of the overall Project footprint at Steensby Inlet.

The pre-construction staging program requires shore-based personnel to support the ship crews in the staging of the equipment and materials to be off-loaded. It is estimated that up to 30 personnel will be required at both Milne Inlet and Steensby Inlet to support ship off-loading. At Steensby Inlet, personnel will be housed onboard the accommodation barges (or ship(s)) or in the existing land-based camp facilities. At Milne Inlet, support personnel will be housed in the existing camp facilities. Through the course of the 2009/2010 winter season, periodic inspections of the stored materials, fuel and vessels will be made by stationing staff located at one or more of the staging sites. Specific pre-construction staging activities for Milne Inlet, Mary River, and Steensby Inlet are discussed in the following sections. During the winter of 2009-2010, a winter road would be maintained from Milne Inlet to Mary River in order to transport materials and equipment.

Transporting the equipment, materials, accommodations, and fuel required for construction by air is not possible, leaving a sealift as the only feasible method of bringing construction materials to the Project site. The only alternative to a pre-construction sealift is to move all fuel and equipment for construction activities to the site the following year, during the 2010 shipping window, following receipt of permits. However, doing so would set-back the entire Project's construction schedule by one calendar year.

### **2.1 MILNE INLET ACTIVITIES**

Milne Inlet, the closest navigable water to the ore body, has been in use as the Project's marine access point throughout exploration and bulk sampling activities. The Milne Inlet Tote Road, constructed in the 1960s, connects Milne Inlet to the Mary River Project site. Existing facilities and infrastructure at Milne Inlet are shown in Figure 2.1 and include:

- Camp facilities
- Gravel airstrip
- Tote road to Mary River

- Garage
- Various laydown areas
- Fuel bladder farm and fuel storage areas
- Incinerator
- Wastewater treatment facility

Two sealift vessels of approximately 7,000 to 16,000 dry weight tonnes (DWT) will deliver major equipment, materials and construction camp facilities to Milne Inlet during the 2009 open water shipping season (Table 2.1). Approximately 5.2 ML of fuel will also be brought to Milne Inlet either in 260 bunded iso-containers as part of the scheduled sealifts or via a separate fuel barge or tanker which would overwinter in ice. Cargo will be off-loaded using existing facilities to the Milne Inlet laydown and temporary stockpile areas used during the 2006 and 2007 sealifts (Figure 2.1). A total of approximately 4.2 ha of laydown area is required, which can be accommodated within existing laydown and temporary bulk sample ore stockpile areas. During ship off-loading, shore-based support personnel will be accommodated in the existing camp facilities at Milne Inlet.

If tankers or barges are selected as the fuel transport method of choice, one tanker or barge containing 5.2 ML of diesel fuel will be overwintered in Milne Inlet to provide the fuel requirements for 2010 construction activities at Mary River. This vessel will be anchored in an appropriate, secure manner, to prevent ship movement during freeze-up and break-up. The appropriate vessel will be used in accordance with the requirements of the *Arctic Waters Pollution Prevention Act (AWPPA)* and Transport Canada's draft standards for freezing barges into landfast ice in the arctic (Transport Canada, 2004). Milne Inlet is an established deep water port and protected harbour suitable as a location for overwintering vessels. Personnel will be stationed at the Milne Inlet camp throughout the winter and will monitor ice break-up in spring and mobilize assistance if required.

Equipment, materials, and fuel positioned at Milne Inlet will be transported to the Mary River Project site over the Milne Inlet Tote Road during the winter of 2009/2010. For the most part, trucks already on site will be used to transport the materials. Fuel will either be transported in tanker trucks or in sealed, double hulled 20,000 L iso-containers. Personnel will be stationed at Milne Inlet over the winter of 2009/2010 to coordinate transportation of the equipment and materials to the Mary River site and to conduct inspections of the fuel storage facility.

## 2.2 MARY RIVER SITE ACTIVITIES

Figure 2.2 shows the existing facilities and infrastructure at the Mary River site that is currently supporting the exploration and bulk sampling programs, including:

- Camp
- Gravel airstrip
- Tote Road to Milne Inlet
- Fuel bladder farm – currently under construction
- Laydown areas on either side of the airstrip
- Temporary facilities supporting the mining of a bulk sample (drills, haul trucks, crusher, etc.)
- Landfill
- Wastewater treatment facilities

Access to the Mary River site is by fixed wing aircraft using the existing gravel airstrip or by float or ski plane on a nearby lake. Baffinland currently operates a regular charter service.

Pre-construction staging materials from Milne Inlet will be stored in existing laydown areas along the road and airstrip at Mary River; fuel will be stored in iso-containers and in the bladder farm currently under construction for the bulk sample. Personnel will be on-site at Mary River to conduct periodic inspections of fuel and materials.

### 2.3 STEENSBY INLET ACTIVITIES

The Project's proposed port site is at Steensby Inlet, located approximately 140 km south-southeast of Mary River. Steensby Inlet provides a southern navigable marine access route to the general Project area, allowing easier and more direct access than Milne Inlet, and will be the site from which Mary River ore will be exported. Existing facilities at Steensby Inlet are limited to a single fly-in/fly-out camp, as shown in Figure 2.3. In 2008, this camp will be expanded to house approximately 40 people in tent accommodations, which will be replaced by a trailer camp in 2009 arriving with a 2008 sea-lift.

Five sealift vessels of approximately 7,000 to 16,000 dry weight tones (DWT) will deliver major equipment, materials, and construction camp facilities required to primarily support railway construction a critical-path task for the Project (Table 2.1). Ships will be off-loaded using cranes or a rough terrain container handler. Approximately 4.2 ML of fuel will be brought to Steensby Inlet either in 210 bunded iso-containers or on a separate fuel tanker or barge that will overwinter in ice. Two approximately 225-person accommodations barges (or alternately ship(s)) will also be included in the 2009 sealifts, and will overwinter in ice within the bay north of the Steensby islands and north east of the future freight dock. Floating accommodations will provide housing for construction workers prior to the completion of permanent camps, including the approximately 450 workers required for railway construction during the 2010 construction season.

An estimated 12 ha of laydown will be required for staging, with proposed areas identified in Figure 2.3 at the future construction dock, the Steensby islands, and the mainland adjacent to the island. Proposed laydown areas have been identified through terrain analysis using aerial photography; confirmation of the suitability of these areas will be confirmed in 2008 through further site investigations, as necessary. As such, adjustments to the exact location and size of proposed laydown areas are possible. Land-based activities will be minimized to the extent possible, and rig mats will be used, in selected areas, to limit disturbance of soft soils.

Floating accommodations will be over-wintered in a bay north of the port site as shown on Figure 2.3. This bay is large enough (approximately 500m long by 250m wide) to accommodate both barges or ship(s) as well as a fuel tanker or barge if required; its sheltered location will provide a safe environment for the ships during ice formation and break-up. Bathymetric surveys (Figure 2.4) conducted to date have indicated the suitability of the main bay; however further survey will be completed in the summer of 2008 to establish precise locations for over-wintering. The barges will be anchored using several lines so that they will be centred with minimal movement.

Additionally, a fuel tanker or barge containing 4.2 ML diesel fuel may be overwintered at Steensby Inlet to provide the fuel requirements for 2010 construction activities, depending upon the fuel transport method



selected for the pre-construction sealift. Similar to the accommodation barges, the fuel vessel will be anchored at bow and stern to prevent ship movement during freeze-up and break-up. The appropriate vessel will be used in accordance with the requirements of the *Arctic Waters Pollution Prevention Act* (AWPPA) and Transport Canada's draft standards for freezing barges into landfast ice in the arctic (Transport Canada, 2004). Personnel stationed at the Steensby Camp will monitor the vessel during spring break-up and mobilize assistance if required.

Periodic inspections of the stored materials, fuel, and vessels will be made by personnel stationed with the floating accommodations in Steensby Inlet, at the Steensby Camp, or by personnel at the Mary River Camp.

## 2.4 PRE-CONSTRUCTION TIMELINE

The main milestone dates of the pre-construction sealift are as follows:

Date	Activity
March 2008	Submit Pre-Construction Staging Supplemental Information
June 2008	Equipment procurement
August 2009	Estimated 2 ships to Milne Inlet, 5 ships to Steensby Inlet to off-load equipment, materials and self-contained fuel, and 2 accommodation barges (or ship(s)) to Steensby Inlet to be frozen into the ice. If fuel is to be stored in barges, an additional fuel barge will be required at each location.
Winter 2009/2010	Transportation of fuel and camp facilities from Milne Inlet to Mary River along the Tote Road

## **SECTION 3.0 - STEENSBY INLET BASELINE CHARACTERISTICS**

Physical, biological, and cultural baseline data for Steensby Inlet is summarized here to provide an overview of the area. The laydown areas and associated access routes at Steensby Inlet represent only a small portion of the overall Project footprint; and constitute the only physical areas of disturbance resulting from the pre-construction activities. A number of potential laydown areas have been tentatively identified (Figure 2.3) via aerial photography and will be groundtruthed based on the results of the 2008 geotechnical and archaeological field investigations.

### **3.1 PHYSICAL ENVIRONMENT**

Baffinland established a meteorological station at Steensby Inlet in June, 2006. Data collected since then show that the climate at Steensby Inlet may be slightly drier than either Milne Inlet or Mary River. A total of 175.1 mm of rain was recorded between July 2006 and September 2007 at Steensby Inlet; in comparison, both other locations recorded over 200 mm of rain during the same time period. Temperatures recorded at Steensby Inlet were comparable to those recorded at the other sites. Terrestrial relief around Steensby Inlet is low, resulting in flat plains with high concentrations of ponds and wetlands.

Surface water quality monitoring has been conducted in the Steensby Inlet area between 2005 and 2007, with results generally showing concentrations of all measured parameters below Canadian Council of Ministers of the Environment (CCME) guideline limits. Surface water samples had low levels of turbidity, hardness, and conductivity and generally neutral pH values.

Tides at Steensby Inlet are semi-diurnal, and undergo water level changes of about 3.55 m between high and low tides. Water temperature ranged from 3.1 to 4.2°C at the surface and decreased to about 0°C at the sea bed. Surface salinities were about 25 ppm and increased uniformly through the water column to about 27 ppm at the sea bed.

Bathymetric data indicate steep offshore gradients to more than 60 m in the vicinity of the proposed ore loading dock (Figure 2.3). Gradients are more gentle off the proposed construction/freight dock site, but depths still reach more than 40 m within 350 to 400 m from shore. Between the islands and the mainland and off the southern end of Steensby Island water depths do not exceed 10 m.

In winter, landfast ice forms across Steensby Inlet. Break-up of ice in spring in Steensby Inlet typically occurs in July. The bay north of the Steensby Islands where the future freight and tug docks will be located, and where the floating accommodations and possibly fuel tankers/barges will overwinter, becomes ice-free in advance of break-up of ice in Steensby Inlet, due to freshwater inputs during freshet.

### **3.2 BIOLOGICAL ENVIRONMENT**

The vegetation of the region is sparse and dwarfed in comparison to areas further south. Small icecaps in the vicinity attest to ice cover in the not-so-distant past. High slopes are sparsely-vegetated with forbs like arctic poppies, purple mountain saxifrage, and red bladder campion. There are no coniferous trees. Woody plants are reduced to dwarf shrubs which usually do not exceed 40 cm in height. Wet lowland areas are studded with small ponds and covered with sedge and cottongrass marshes. Tundra slopes are populated

by dwarf shrubs like arctic willow, white arctic heather, and blueberry. Dry ridges support a mixture of mountain avens and small xeric (dryland) sedges, plus sparse grasses.

Numerous marine fishes, including arctic cod, sculpins, and eel blennies, make use of nearshore marine habitat in the vicinity of the port site. Anadromous arctic char are abundant along the coasts of Steensby Inlet, spawning and overwintering in large river systems in the vicinity of the port site. During September, 2007, arctic char comprised more than 95% of the fish catch in nets set along the coast in the vicinity of the port site.

Marine mammals that frequent Steensby Inlet include bowhead whale, beluga, narwhal, and less frequently, killer whales. Bearded seals and ringed seals are found throughout the area, and polar bears have been observed at coastal and inland locations during the open-water period. Bearded seals and walrus are present along cracks and leads in the sea ice throughout Foxe Basin and along the landfast ice edge at the entrance to Steensby Inlet. Some harvesting of marine mammals is known to occur within the Steensby Inlet area during the summer and along the landfast ice edge at the outlet of Steensby Inlet during winter. Harvesting activities are generally concentrated in areas closest to the communities of Igloolik and Hall Beach, and as such, the amount of harvesting in Steensby Inlet is limited in comparison.

### 3.3 CULTURAL RESOURCES

Archaeological investigations at Steensby Inlet have identified 22 sites, ranging from a single stone circle to over 35 stone features of various types including circles, caches, and traps. At least two sites contain evidence of stone tool making suggestive of the Arctic Small Tool Tradition period. It is anticipated that more features and artefacts will be identified within the sites already recorded as they are more thoroughly investigated during the 2008 field season.

### 3.4 ONGOING BASELINE INVESTIGATIONS

Field studies will be conducted at Steensby Inlet in 2008 to gather additional information regarding the bathymetry at the port and vessel overwintering sites, and to continue archaeological investigations.

## **SECTION 4.0 - MITIGATION AND MONITORING**

The majority of activities (sealifts, cargo unloading, cargo storage, and cargo transport) associated with the pre-construction sealift are not unique to this stage of the Project and have been performed in support of the permitted exploration and bulk sampling programs. As previously discussed, no new land disturbance or facilities will be required to support the pre-construction sealift at Milne Inlet or at Mary River. Activities at Steensby Inlet will require the setup of laydown areas, but these areas will be part of the Project's future footprint and will require no additional temporary ground disturbance outside of that footprint. Overwintering of vessels in ice has not been undertaken previously at any of the Project sites, but is a common activity in the Arctic and is regulated by Transport Canada, which established draft guidelines/standards for this type of activity (Transport Canada, 2004).

Because pre-construction staging activities are limited to areas of existing or planned future disturbance and will not incorporate new actions, impacts from these activities will likely be limited to the following:

- **Increased erosion and sedimentation potential** - The off-loading and storage of heavy equipment and materials will result in the disturbance to surface soils at Steensby Inlet. As a result of physical land disturbance that will occur (routing, gouging, and possible localized subsidence), erosion and mobilization of sediment near drainage areas is possible. Mitigation and monitoring procedures already in place for the exploration and bulk sampling programs will be extended to cover pre-construction staging activities, including sediment and erosion control practices such as the use of rig mats and silt fences, and water quality monitoring.
- **Potential impacts to archaeological sites** - It is possible that the identified laydown areas at Steensby Inlet contain archaeological sites that have not yet been identified. Archaeological surveys were initiated in 2007; further assessment planned for 2008 will specifically target the proposed laydown areas. More laydown area has been identified than is required, so the first line of mitigation is avoidance, followed by mitigation. If archaeological values cannot be avoided, a mitigation plan will be developed and approved by the Department of Culture, Language, Elders and Youth, Government of Nunavut and implemented prior to the pre-construction offloading activities.
- **Potential for accidental fuel spills** - The likelihood of a spill is low, as experienced tanker or barge operators and appropriately vessels will be utilized. As required under the AWPPA, the operators will have onboard a Transport Canada-approved Oil Pollution Emergency Plan. The vessels will be equipped with appropriate spill response materials, including materials for responding to spills in ice. The existing approved Spill Contingency Plan for land-based spills will be updated to incorporate the proposed activities, including the storage of iso-containers of fuel on land. Iso-containers are equipped with integral secondary containment.

Specific monitoring programs already in place that will be extended to cover various pre-construction staging activities are discussed in the following section.

#### 4.1 EXISTING BAFFINLAND MITIGATION AND MONITORING PROGRAMS

Two overarching mitigation and monitoring plans have been initiated at the Project in response to exploration and bulk sampling activities, the Environmental Protection Plan (EPP) and the Comprehensive Environmental Monitoring Plan (CEMP). Both the EPP and CEMP are living documents and will be modified as necessary to address pre-construction sealift activities. Specifically, each plan includes:

- **CEMP:** The CEMP was developed to articulate the predicted impacts, mitigation, and proposed monitoring associated with the various environmental components. The CEMP is a tool used by site environmental staff to carry out monitoring – both monitoring required by permits and licenses, as well as monitoring to validate impact predictions. The CEMP will be updated as required to incorporate the proposed additional activities.
- **EPP:** The EPP was developed as the hands-on operational document for use by field supervisors and site managers, describing how key site activities are to be conducted, what environmental sensitivities exist, and the terms and conditions of the permits and licenses issued to Baffinland that may apply to the give key site activities. The EPP is comprised of Operational Standards for activities such as sediment and erosion control, waste management, and watercourse crossing installations.
- **Spill Contingency Plan:** Addresses spills potentially affecting land and freshwater resources
- **Abandonment and Reclamation Plan:** Addresses the approach and costs associated with removing all equipment and materials from site, restoring development areas to be physically and chemically stable, and closure monitoring

Ongoing mitigation programs that are part of the above plans include monitoring of:

- General activities for compliance with the terms and conditions of licenses, permits and authorizations, as well as commitments
- Sediment and erosion control
- Activities in and around water, to protect fish and aquatic habitat
- Terrestrial and marine wildlife monitoring programs as a continuation of baseline studies and to monitor response of wildlife to site activities
- Archaeological resources, requiring an archaeological assessment of all new activity areas prior to development, with provisions in place for chance finds during construction activities

These programs will be expanded and modified as necessary to include pre-construction sealift activities. The Spill Contingency Plan will be updated to address potential spills originating from the staged equipment and materials stored on land. The Abandonment and Restoration Plan will be updated to contemplate the removal of all equipment and materials from the Project sites, should the Project not proceed to development. Over-wintering ships and/or barges will be equipped with vessel specific Spill Contingency Plans as discussed further below.

Discussion regarding pre-construction staging will form part of ongoing stakeholder engagement and will be specifically discussed with local communities during public consultation meetings scheduled for spring of 2008 will be specifically discussed as part of Baffinland's ongoing stakeholder engagement program.

#### 4.2 ADDITIONAL MITIGATION AND MONITORING PROGRAMS

Additional mitigation and monitoring will be undertaken if a fuel tanker or barge is laid up in the ice overwinter. Transport Canada's "Draft Arctic Waters Guidelines/Standards for Lay-up of Petroleum Barges in Landfast Ice" (Transport Canada, 2004) outline the recommended approaches to freezing petroleum barges in ice. The draft guidelines provide the following guidance regarding petroleum tankers or barges used for over-wintering:

- Vessels should be suitably designed for the conditions, including consideration or need for double sides or double bottom or double hull and tank size sub-division
- Operated by competent qualified persons
- Vessels are laid up and stored in suitable landfast ice conditions, avoiding harbours with unprotected entrances where ice shear zones may occur
- Appropriate lifesaving, safety, firefighting and emergency equipment and contingency measures be considered throughout the lay-up period and particularly through freeze-up and break-up periods
- Adequate moorings be used to fix the vessel's position, or a powered support vessel is required to be present
- Monitoring plans be developed on a site-specific basis, with monitoring throughout freeze-up and break-up the possibly through the winter

As discussed in Section 2.3, the head of Milne Inlet and the small bay north of the future construction and freight docks at Steensby Inlet provide sheltered locations and a safe environment for the ships during ice formation and break-up. Freshwater inputs into the bay proposed for overwintering result in the bay becoming ice free prior to break-up of the landfast ice in Steensby inlet, so the proposed location has favourable ice conditions. Similarly, Phillips Creek and another un-named creek drain at the head of Milne Inlet so that the head of the Inlet becomes ice-free before the mouth of the Inlet. Plans for over-wintering in the ice will be developed by experienced operators in consideration of the Transport Canada guideline as a best practice, if overwintering of a tanker or barge is carried out. The location, equipment, means of mooring, and monitoring will be finalized in this Overwintering Plan.

## SECTION 5.0 - REFERENCES

1. Transport Canada. Draft Arctic Waters Guidelines/Standards for Lay-up of Petroleum Barges in Landfast Ice. Winnipeg: Transport Canada, 2004.

**TABLE 2.1**

**BAFFINLAND IRON MINES CORPORATION  
MARY RIVER PROJECT**

**SUPPLEMENTAL INFORMATION FOR PRE-CONSTRUCTION STAGING**

**PRELIMINARY EQUIPMENT LIST**

Equipment/Materials	Quantity	Equipment/Materials	Quantity
<b>Mary River via Milne Inlet</b>			
Cat IT62G Tool Carrier (2)	2	Heaters - Herman Nelson	8
Cat 428 Backhoe	1	Light Towers	20
Water/Sand/Gravel Truck (Large)	1	Truck - Flatbed & Picker	1
Vacuum Truck	1	Truck - Fuel	2
Bus (2)	2	Truck - Mechanic	2
Crewcab (8)	8	Truck - Service	2
Office Complex (2)	2	Truck - Tire	1
Shop (Large)	1	Truck - Highway Tractor & Lowbed	1
Commun. Sat Phones (2)	2	Truck - Water (Tandem - Potable)	1
Compactor	3	Truck - Water (Tandem)	1
Compactor	2	Truck - Welding	1
Dozer	4	Van - Passenger	4
Excavator	2	Container - Garbage (Burnable)	1
Excavator	3	Container - Hazardous Waste	1
Grader	3	Container - Scrap Metal	1
Truck - Haul	5	Container - Welding Gases	1
Truck - Water	1	Tank - Gasoline	1
Truck - Water	1	Tank - Gasoline c/w pump	1
Truck - Explosives Mix	2	Tank - Waste Oil	2
Truck - Pickup	2	Warehouse - Cold Storage	1
Loader	2	Warehouse - Heated Storage	1
Tank - Double Wall	1	Washcars	3
Magazine - Explosives	2	AN-Prill Oxidizer	1500
Tanks	2	Emulsifier	3
Container - Equipment	5	Oxidizer	2
Drill	2	Explosives	2
Drill	1	Detonators	2
Truck - Pickup	3	Crusher - Jaw	1
Container - ISO	3	Crusher - Cone	1
Truck - Pickup 4 x 4 Crewcab	2	Screen Deck - Triple	1
Loader	2	Piping	50
Cement (350 kgs / M3 concrete )	1,000	Tankage	200
Rebar (100 kg / M3 concrete )	200	Structural Steel	200
Construction Camp MOB	5,000	ISO tanktainer 260 fuel 25 lube mob	4,700
<b>Steensby Inlet</b>			
Excavator - Hitachi 1200	1	Crane - Grove RT 760	2
Excavator - Cat 385	1	Crane - 3900/777 CR136T	1
Excavator - Cat 345	2	Crane - Grove RT 9130	1
Excavator - Cat 330	2	Muskeg (all terrain unit)	2
Long Stick c/w Bucket	1	Atv's	4
Dozers (2 Cat D9, 2 Cat D8, 1 Cat D6)	5	Snowmobile's	3
Cat 416	2	Gensets (5kw to 1000kw)	29
Off Highway Truck - Cat 777	4	Kodiak Track Jaw 36 x 50	1
Off Highway Truck - Cat 773/775	3	Cone HP500	1
Off Highway Truck - Cat 735	3	Kodiak 400 W/6x20 Screen	1
Water Truck (off highway)	1	3-Deck Screen (6 x 20)	1



**TABLE 2.1**

**BAFFINLAND IRON MINES CORPORATION**  
**MARY RIVER PROJECT**

**SUPPLEMENTAL INFORMATION FOR PRE-CONSTRUCTION STAGING**

**PRELIMINARY EQUIPMENT LIST**

Equipment/Materials	Quantity	Equipment/Materials	Quantity
Grader - Cat 16 M	2	Portable Conveyor (36" x 60')	6
Drill - L8	2	Stacker (36" x 100')	1
Drill - IR 590 / D7	5	Fixed Conveyor (48" x 100')	1
Float	2	Grizzly	2
High-Boys	4	Control Vans	1
Tractor Truck	2	Office Trailer (12 x 60)	18
Trucks (1 Welding, 2 Mechanic, 1 Tire, 1 Bo	5	Lunch Trailer	12
Lube Van	2	Mechanic Office	4
Fuel Truck	2	Hydraulic Buster - Tramac	1
Geep Tanks (1500 to 10,000 gal)	6	Manbasket	2
Fuel Tanker	1	Fuel Heaters	5
Pickups 4x4	25	Portable Toilets	10
Vans	2	Washroom Trailers	8
Flat Deck/Stake body Trucks	3	Winter Shelters (20 ft C-Can)	4
Hammer S-86 (10,000 lbs)	1	Temp Wharf Cribbing & Misc Materials	1
Tramac 950 ROC	2	Office Trailer - Skirting & blocking	1
Tower Lights	25	C-Cans (full with misc supplies)	150
Compressors (185cfm to 600cfm)	11	Cat Parts Trailers	5
Cat IT28 FEL	2	C-Cans (tires/oils/grease)	150
Cat 950 FEL	1	Process Equipment	5
Cat 966	1	Tanks (3.65 x 12.1)	2
Cat 980	1	Magazine	2
Cat 988	1	Double Walled Tank (2.4 x 12.1)	1
Skidsteer Loader - Cat 246	1	AN Prill - Oxidizer	870
Powder Truck	3	Emulsifier	1
Roll-on-Roll-Off Truck	2	Proprietary Ingredient - Oxidizer	1
Compactors (6T to 10T)	3	Explosives - 1.1D	1
Pumps (3" to 6")	7	Detonators - 1.1B	1
Welding Machine (diesel)	8	Nested 3000mm & 1500mm Culvert Bundle w/ Couplers	36
Speed Boat	1	1500mm Culvert Bundle w/ Couplers	72
Bomag Compactor (walk behind)	6	Curved Plate - Type 1	11
Fork Lift (20,000lbs)	2	Curved Plate - Type 2	6
Mix Vehicle (Explosives)	2	Curved Plate - Type 3	7
JLG- Telescopic Man Lift	4	Curved Plate - Type 4	5
Grout Plant	1	Bolts	4
HDPE Pipe Welder	1	3mx1mx1m Gabions	9
Cat IT62G Tool Carrier	2	Spex Tie Wire	1
Cat 428 Backhoe	1	Temporary Bridges - Steel / Hardware	6
Water/Sand/Gravel Truck (Large)	1	Timber Decking (10" x 10" x 10')	4
Vacuum Truck	1	Abutment / Cribs - Timber (10" x 10" x10')	15
Bus	1	Steel Beams / Hardware (1080 m)	4
Crewcab	4	30" Casings (260m @ 30" Dia 1/2" wall)	1
Office Complex	1	Oxygen & Acetylene (25MT loads)	2
Shop (Large)	1	Oil Drum Pallets	10
Commun. Sat Phones	1	AN-Prill Oxidizer	1500
Compactor	3	Emulsifier	3
Compactor	2	Oxidizer	2

**TABLE 2.1**

**BAFFINLAND IRON MINES CORPORATION**  
**MARY RIVER PROJECT**

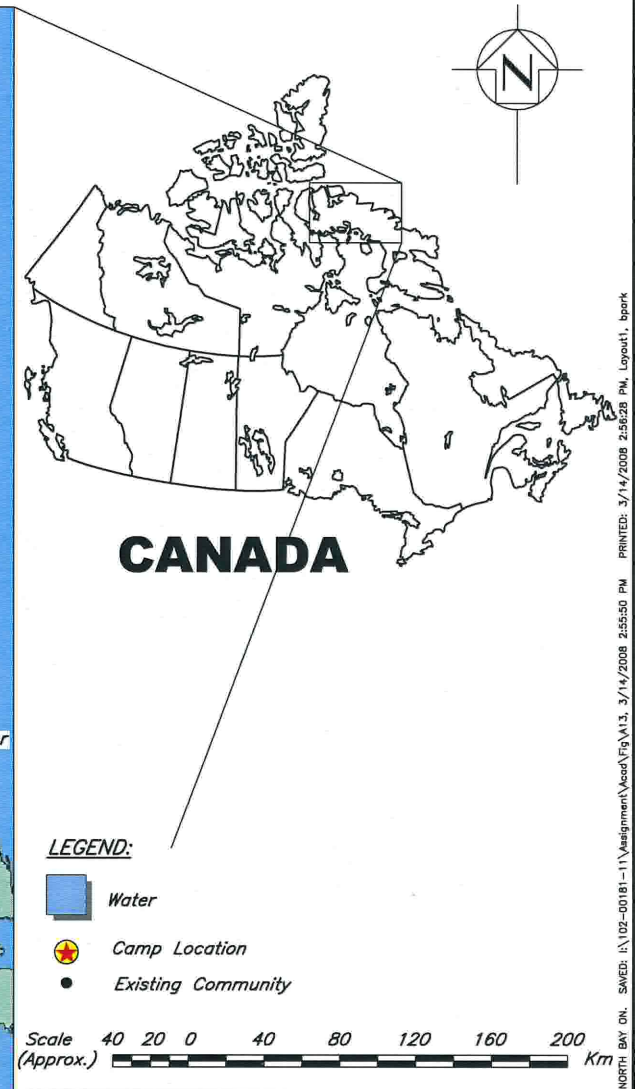
**SUPPLEMENTAL INFORMATION FOR PRE-CONSTRUCTION STAGING**

**PRELIMINARY EQUIPMENT LIST**

Equipment/Materials	Quantity	Equipment/Materials	Quantity
Dozer	4	Explosives	2
Excavator	2	Detonators	2
Excavator	3	Drill	2
Grader	3	Drill	1
Truck - Haul	5	Truck - Pickup	3
Truck - Water	1	Container - ISO	3
Truck - Water	1	Truck - Pickup 4 x 4 Crewcab	2
Truck - Explosives Mix	2	Loader	2
Truck - Pickup	2	Crusher - Jaw	1
Loader	2	Crusher - Cone	1
Tank - Double Wall	1	Screen Deck - Triple	1
Magazine - Explosives	2	Feeder Bin	1
Tanks	2	Surge Bin	1
Container - Equipment	5	Control Van	1
Conveyor - Stacking	1	Conveyors	4

I:\102-00181-11\Assignment\Report\Report 2, Rev. 0\Table 2.1 2009 Equipment.xls]Table 2.1

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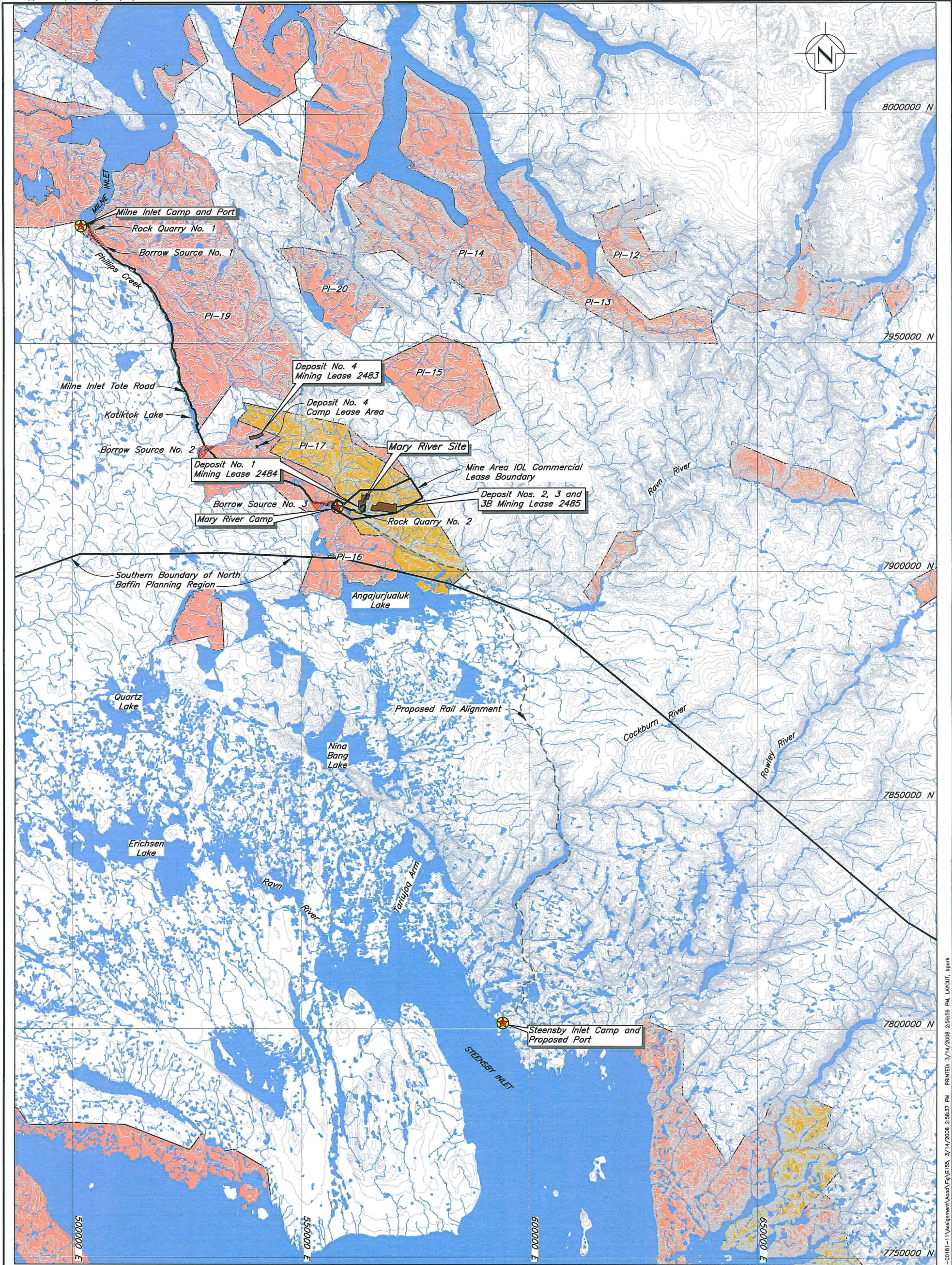


**LEGEND:**

- Water
- Camp Location
- Existing Community

			
MARY RIVER PROJECT			
PROJECT LOCATION MAP			
<b>Knight Piésold</b> CONSULTING		P/A NO. NB102-00181/11	REF. 2
		REV. 0	<b>FIGURE 1.1</b>





LEGEND:



- River/Stream/Drainage
- Milne Inlet Tote Road
- Proposed Rail Alignment
- Contour
- Water
- Inuit Owned Land-Surface Only Excluding Minerals
- Inuit Owned Land-Surface and Subsurface Including Minerals
- Mineral Lease Boundary
- Crown Land

- Existing Borrow Area (IOL Commercial Lease)
- Existing Rock Quarry (IOL Commercial Lease)

NOTES:

- Base Map: © Her Majesty the Queen in Rights of Canada, Department of Natural Resources (2004). All rights reserved.
- Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
- Contours are in metres. Contour interval varies.
- Proposed Rail Alignment provided by Canarail Consultants Inc.

Scale 10 5 0 10 20 30 40 Kilometres

 MARY RIVER PROJECT			
LOCATION OF PROJECT ACTIVITIES			
		P/A NO. NB102-00181/11	REF. 2
		REV. 0	FIGURE 1.2



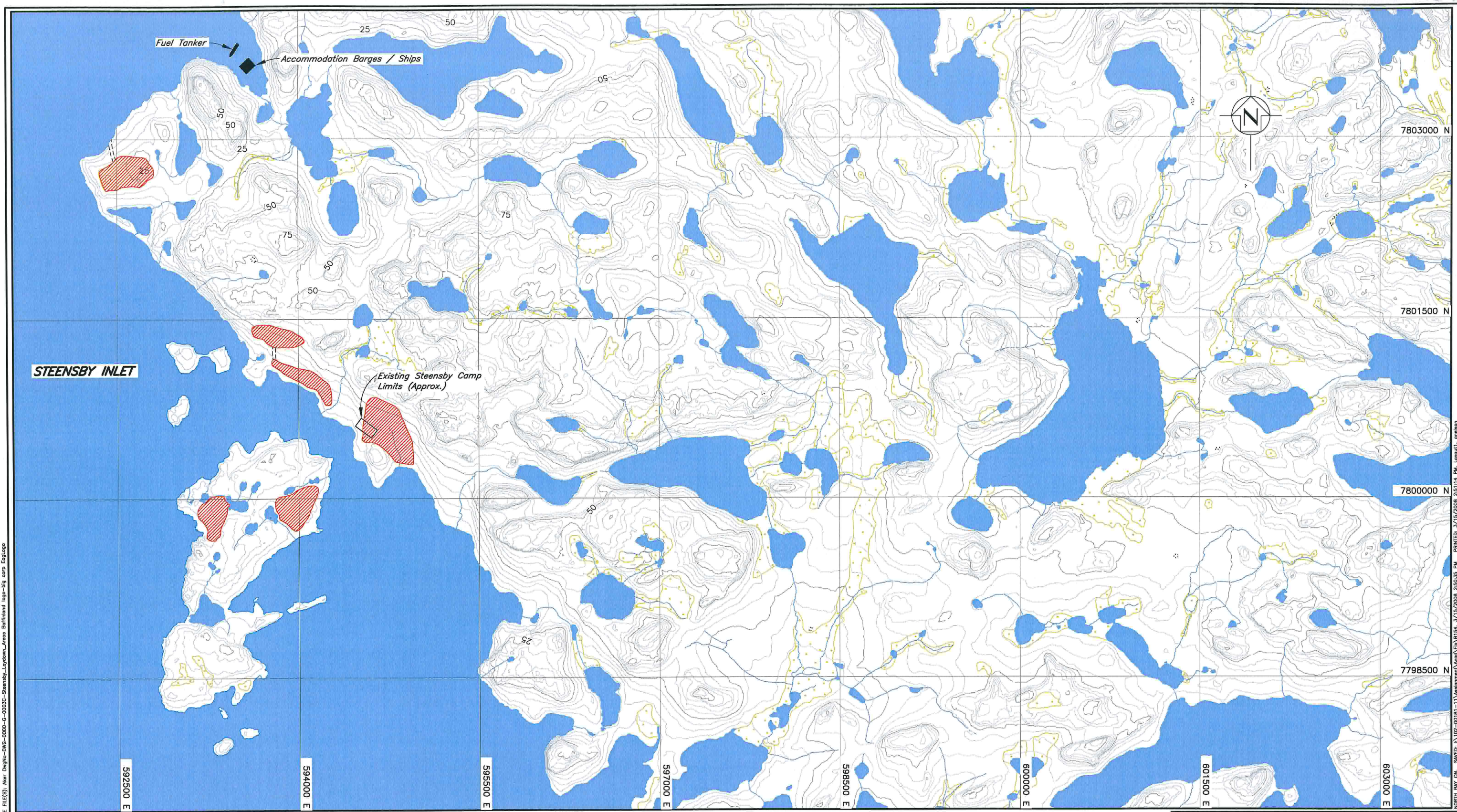








XREF FILE(S): STEENSBY\_2; steensby lakes IMAGE FILE(S): Aar DwgNo-DWG-0000-G-0003C-Steensby\_Laydown\_Area Baffinland logo-bkg corp Eagle



**LEGEND:**

- |   |                       |   |                       |
|---|-----------------------|---|-----------------------|
|  | Water                 |  | Contour               |
|  | Wetland               |  | River/Stream/Drainage |
|  | Possible Laydown Area |  | Road                  |

**NOTES:**

1. Topography provided by Eagle Mapping (2005).
2. Coordinate grid is shown in UTM (NAD83) Zone 17 and is in metres.
3. Contours are in metres. Contour interval is 5 metres.



			
MARY RIVER PROJECT			
STEENSBY INLET PROPOSED SITE LAYOUT			
	P/A NO. NB102-00181/11	REF. 2	REV. 0
	FIGURE 2.3		

NORTH BAY ON. SAVED: I:\02-00181-11\Management\Aar\Fig\154\_ 3/15/2008 2:50:35 PM PRINTED: 3/15/2008 2:51:14 PM Layout1.gres



