Izok Corridor Project Proposal

SECTION 1

Table of Contents Page

List of Tables

List of Figures

Page

1 INTRODUCTION

1.1 Objectives of the Project Proposal

Minerals and Metals Group (MMG) is submitting this Project Proposal to fulfill the information requirements outlined in the Nunavut Impact Review Board (NIRB) Screening Part 2 Form (Project Specific Information Requirements; Appendix B), and initiate the regulatory review of the Izok Corridor Project (the Project). It is important to note that the description of the Project, its components and all environmental information within this Project Proposal is preliminary in nature and based on pre-feasibility design. A more detailed project description (based on feasibility-level project design) and a comprehensive effects assessment will be included in the Draft Environmental Impact Statement (DEIS). Preliminary identification of potential environmental effects of the Project is based on the pre-feasibility study (MMG 2012a), as well as earlier baseline studies and effects assessments conducted in relation to the DEIS for the High Lake project (Wolfden 2006), environmental baseline programs completed in 2007, 2008 and 2012, internal issues scoping workshops conducted in 2008 and 2012, consultation with communities, regulators and the Kitikmeot Inuit Association (KIA) in early 2012, and feedback from federal, territorial and Inuit agencies resulting from the Resource Development Advisory Group (RDAG) meeting held in Iqaluit in April 2012 organized by the Northern Program Management Office (Can Nor).

1.2 General Description of the Project

The Izok Corridor Project is a proposed zinc mine located in the Kitikmeot region of Nunavut (**Figure 1.2-1**). The Project consists of two mine sites, an all-season access road and a port facility. The proposed mine sites will be located near current MMG exploration properties. These mines will produce primarily zinc concentrate, as well as some copper concentrate and a small amount of lead concentrate.

Unlike gold or diamonds, zinc and copper concentrates are sold in large quantities (i.e., thousands of tonnes) in powdered form. In order to ship the concentrate to its customers, MMG will transport it by truck to a port where it will be loaded onto large bulk-carrier ships and transported to smelters in Europe and Asia. This will require construction of a road connecting the Izok Mine (the more southerly mine) to the High Lake Mine and north to a proposed port at Grays Bay on the Coronation Gulf (Figure 1.2-1). Facilities at the Grays Bay Port will include a dock, concentrate storage shed, fuel storage facilities and a camp. These facilities will support storage of concentrate, loading of the bulk-carrier ships, and re-supply of fuel and goods for the Project.

The Project will employ approximately 710 people during the operational phase, with 400 people on site at any one time due to the fly in/fly out rotational schedule. The average on-site workforce during construction is expected to be about 670 people.

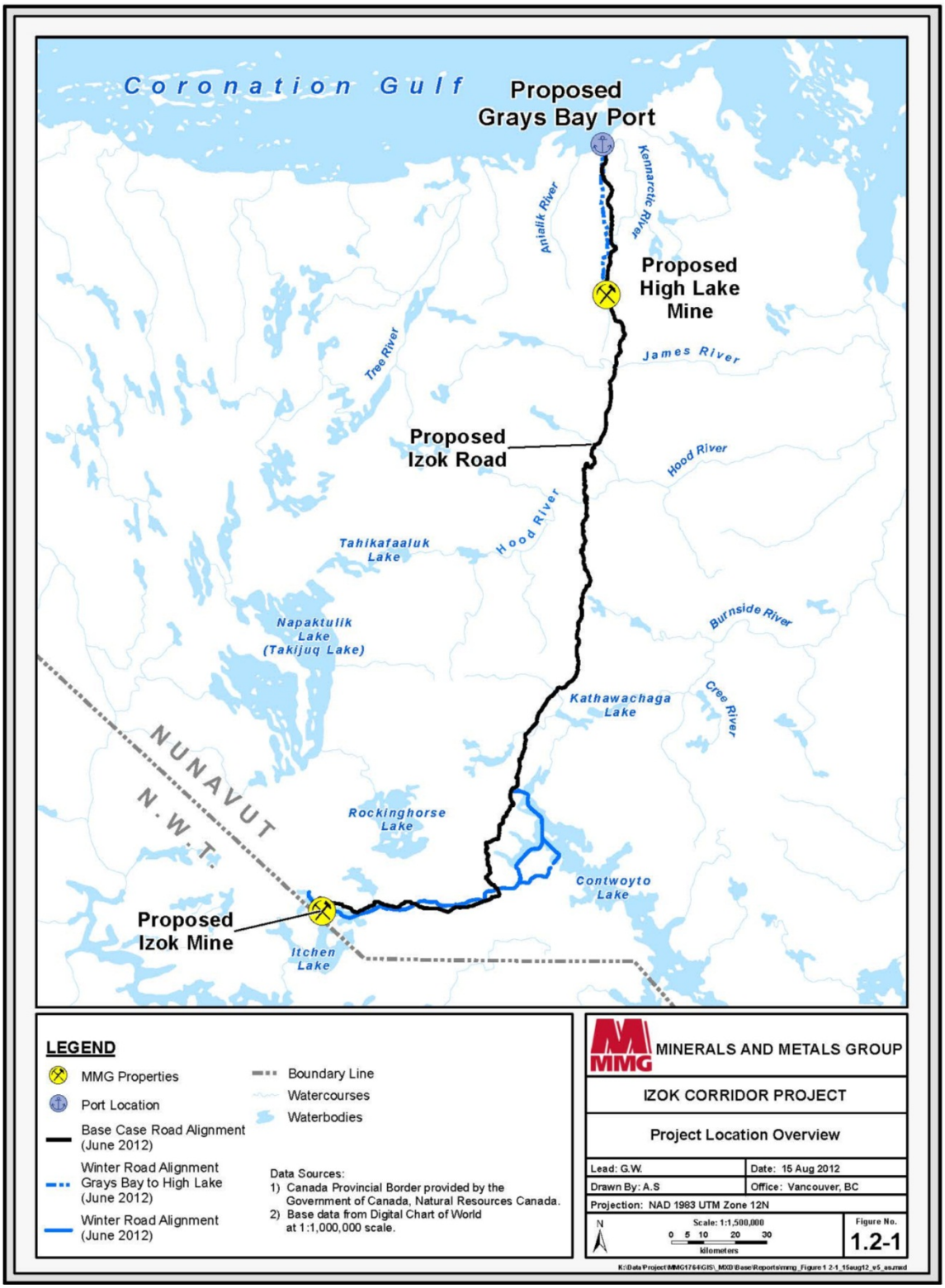

Figure 1.2-1 Izok Corridor Project Overview

1.3 Project Proponent

MMG is an Australian base metal mining company, based in Melbourne with Canadian headquarters in Vancouver, British Columbia. The company is listed on the Hong Kong Stock Exchange under Stock Code: 1208. MMG has a workforce of more than 8,500 people around the world. It currently employs 33 people at its Vancouver office.

MMG is a wholly owned subsidiary of Minmetals Resources Limited (Minmetals), which is a diversified mining and metals business and one of the world's largest producers of zinc and a substantial producer of copper. The majority shareholder of Minmetals is China Minmetals Corporation (CMC), headquartered in Beijing China. CMC was founded in 1950 and owns businesses in 26 nations and regions around the world.

MMG's corporate goal is to maintain and expand its position as a leading internationally diversified base metals group. Its objective is to be one of the top three mid-tier mining companies within five years. This goal will be achieved by developing its upstream, diversified base metals operations through exploration and discovery, organic growth, and acquisitions.

1.4 Project History

Over the last 30 years, many exploration and mining companies have investigated mineral deposits in this area of the Kitikmeot Region. The Izok deposit was discovered in the late 1970s by Texas Gulf Inc. through geophysical surveys and drilling. The deposit was subsequently acquired by Falconbridge in 1985, and then by Minnova in 1992 (renamed Metall Mining Corp). Metall Mining Corp had plans to move into production but the project was suspended in 1992. The High Lake deposit was discovered in the mid 1950s by Kennarctic Explorations Limited, which was then acquired in 1991 by Kennecott Exploration (in conjunction with Aber).

Wolfden acquired both the Izok and High Lake properties in 2001. Environmental baseline studies and a pre-feasibility engineering study were completed for the proposed High Lake Mine project, and a DEIS was submitted to the NIRB in 2006.

In 2007, Wolfden sold both the Izok and High Lake exploration properties to Zinifex, which later become part of an Australian mining conglomerate called OZ Minerals Ltd. In May 2008, OZ Minerals submitted a letter to the NIRB requesting that the High Lake Pre-Hearing Conference be postponed in light of their decision to focus on the Izok Lake project. The company advanced pre-feasibility studies, including engineering and environmental work, at the Izok property in 2007 and 2008 but stopped at the end of 2008 due to poor global economic conditions.

In 2009, MMG's parent company China Minmetals Corporation purchased OZ Minerals and its exploration properties in Nunavut. MMG resumed exploration at High Lake and Izok Lake in 2011 and completed a pre-feasibility study. In early 2012, MMG committed to initiating a feasibility study and additional environmental baseline studies for the Project.

MMG hopes to re-vitalize the economic prospects of this promising geological province in a responsible and thoughtful manner. For the last three years since MMG acquired High Lake, Izok, Ulu, Lupin and other exploration properties (e.g., Hood, High Lake East and Gondor), it has been completing market analyses, engineering studies and has been continuing exploration in the Kitikmeot region. With its focus

on zinc and base metals, MMG sold the two gold properties (i.e., Ulu and Lupin) to Elgin Mining in 2011. From 2009 to 2011, MMG revisited the numerous engineering and economic studies prepared by previous owners of these properties.

In 2010, a pre-feasibility study was completed for the Izok Lake project (AMEC 2011) that included the Bathurst Inlet Port and Road (BIPAR) and numerous other transportation options. This study demonstrated that major cost optimization was needed to define an economically viable project. In 2011 and early 2012, MMG completed a pre-feasibility study on a project design for the Izok and High Lake properties that could be economic and would support MMG's long term objectives to grow its zinc business. The key requirements for an economic project are as follows:

- The deposits at both the High Lake and Izok properties need to be developed and mined concurrently in order for concentrate sale revenues to support the construction of the extensive infrastructure required to transport and ship the zinc and copper concentrates and allow for efficient use of the Izok Road (ore backhaul from High Lake to the processing plant at the Izok Mine).
- Only one processing plant is built to process ore from both sites. To take advantage of transportation efficiencies, the processing plant needs to be located at the Izok Mine site. Ore from the Izok and High Lake mines is processed at the Izok plant. The concentrate produced at Izok is trucked north to the Grays Bay Port and unloaded in the concentrate storage shed. On the return south, empty trucks pick up loads of crushed ore at the High Lake Mine and transport it to processing plant at the Izok Mine.
- All Project facilities operate on a year-round basis.
- All of the bulk concentrate stored at Grays Bay will be shipped to overseas smelters during the open-water season from mid July to mid October.

A transportation alternatives study was completed in 2011 (MMG 2012b), which examined a number of methods and routes for shipping concentrate to smelters in North America, Europe and Asia. A pre-feasibility study was completed in early 2012 (MMG 2012a), which described the design of Project infrastructure and activities. MMG is currently undertaking a feasibility study for the Project, which will include a more detailed engineering design and costing of the construction, operation and decommissioning phases of the Project. The feasibility study will allow MMG to make a final decision in mid to late 2013 regarding whether to move forward with construction of the Project.

In anticipation of a positive decision on the feasibility study by the MMG Executive Committee and a mandate to proceed to move toward Project construction, MMG is continuing environmental baseline programs that were initiated between 2004 and 2008. MMG is also initiating or re-starting discussions about the Project with Kitikmeot communities, as well as Inuit, federal and territorial boards and agencies. Subject to approval of the feasibility study, MMG plans to deliver a DEIS to the NIRB in mid to late 2013. Detailed design and planning for Project construction, procurement of equipment, and continuation of the permitting process in support of development of the Project will take place over the period 2012 to 2014.

MMG's engagement activities currently include discussions about the Project with interested parties, including Nunavut Tunngavik Inc. (NTI), Government of Nunavut (GN) and the Kitikmeot Inuit

Association (KIA), communities, federal departments such as Fisheries and Ocean Canada (DFO) and Aboriginal Affairs and Northern Development Canada (AANDC). Section 3 provides a more detailed summary of the discussions held to date.

MMG is interested in exploring opportunities to participate in and contribute to initiatives of shared interest with these groups, particularly where these initiatives will help to support the review of the Project. MMG's long-term vision for the proposed Izok Corridor Project supports the federal and territorial government's vision of a strong economic future for all Nunavummiut. In striving for this vision, MMG will continue to respect Nunavummiut core values and work closely with local stakeholders to incorporate these values in the planning and development of the Project.

MMG intends to comply with the Nunavut Land Claims Agreement (NLCA), federal and territorial regulations, and approved land use plans. MMG hopes to gather input and feedback from a variety of sources to learn about issues, improve management plans, and enhance Project benefits to Nunavummiut. Key initiatives planned to inform MMG's approach will include establishment of working groups with community and agency representatives, observing reviews of other northern mining projects, visits to other operating mines in the Canadian Arctic, and visits to communities that have an interest in the Project to provide information about MMG and the Project and gather feedback on issues and concerns.

At this time, MMG is planning to build, operate and maintain the all-season access road using its own resources and solely for Project use. Accordingly, MMG will assume full responsibility for construction, operation, maintenance and eventual closure and reclamation of this road. In the future, MMG may consider entering into agreements with other parties regarding shared use of the road, assuming that road-related safety risks can be managed effectively and any business risks related to road capacity and schedule can be addressed in manner that does not hinder the economic viability of the Project.

1.5 Project Location and Land Tenure

The Izok Corridor Project is located in the western portion of the Kitikmeot region of Nunavut. The nearest community to the Project is the hamlet of Kugluktuk (67° 49' 32''N 115° 05' 42''W), which is located on the Coronation Gulf at the mouth of the Coppermine River (**Table 1.5-1**). Kugluktuk is the westernmost community in Nunavut. The Project footprint is located entirely within Nunavut.

Table 1.5-1 Project Location and Distance from West Kitikmeot Communities

Project Component	Coordinates (latitude and longitude)	Distance from Yellowknife (km)	Distance from Kugluktuk (km)	Distance from Cambridge Bay (km)
Proposed Izok Mine	65° 43' 22.1"N 112° 49' 16.5"W	362 km	260 km	509 km
Proposed High Lake Satellite Mine	67° 27' 17.4"N 110° 46' 06.4"W.	572 km	187 km	307 km
Proposed port at Grays Bay	67° 49' 38.5"N 110° 48' 33.2"W	853 km	179 km	279 km

The Project area covers both Crown land, and Inuit Owned Land (IOL; surface and subsurface rights).

The proposed Izok Mine site is located approximately 300 km southwest of High Lake. The property consists of three Mining Leases and two Surface Leases in Nunavut. (There are three additional Mining Leases that overlap the Nunavut/NWT border and are administered through the NWT.) At this time, MMG has no plans to develop the deposits or resources related to the NWT Mining Leases. Two of the Mining Leases in Nunavut are located wholly on Crown Land (**Figure 1.5-1**). The other Mining Lease and the two Surface Leases are located on grandfathered Crown Land, which is now part of an IOL Package (surface rights; administered by the KIA on behalf of the Inuit beneficiaries as designated under the NLCA). The Crown retains subsurface rights to these areas.

The proposed High Lake Mine site is located approximately 50 km south of Grays Bay. The property consists of three Mineral Claims, 15 Mining Leases and one Surface Lease (**Figure 1.5-2**). All Mining Leases and the Surface Lease are grandfathered Crown Land, which is now part of an IOL Package (subsurface and minerals rights; administered by Nunavut Tunngavik Inc. (NTI)). The Crown leases predate the creation of the IOL packages. The Mineral Claims are situated on Crown Land. The proposed Grays Bay Port site is situated entirely on Crown Land (**Figure 1.5-2**).

The proposed Izok Road alignment and the alternate segment cross both IOL and Crown Land (**Figure 1.5-3**).

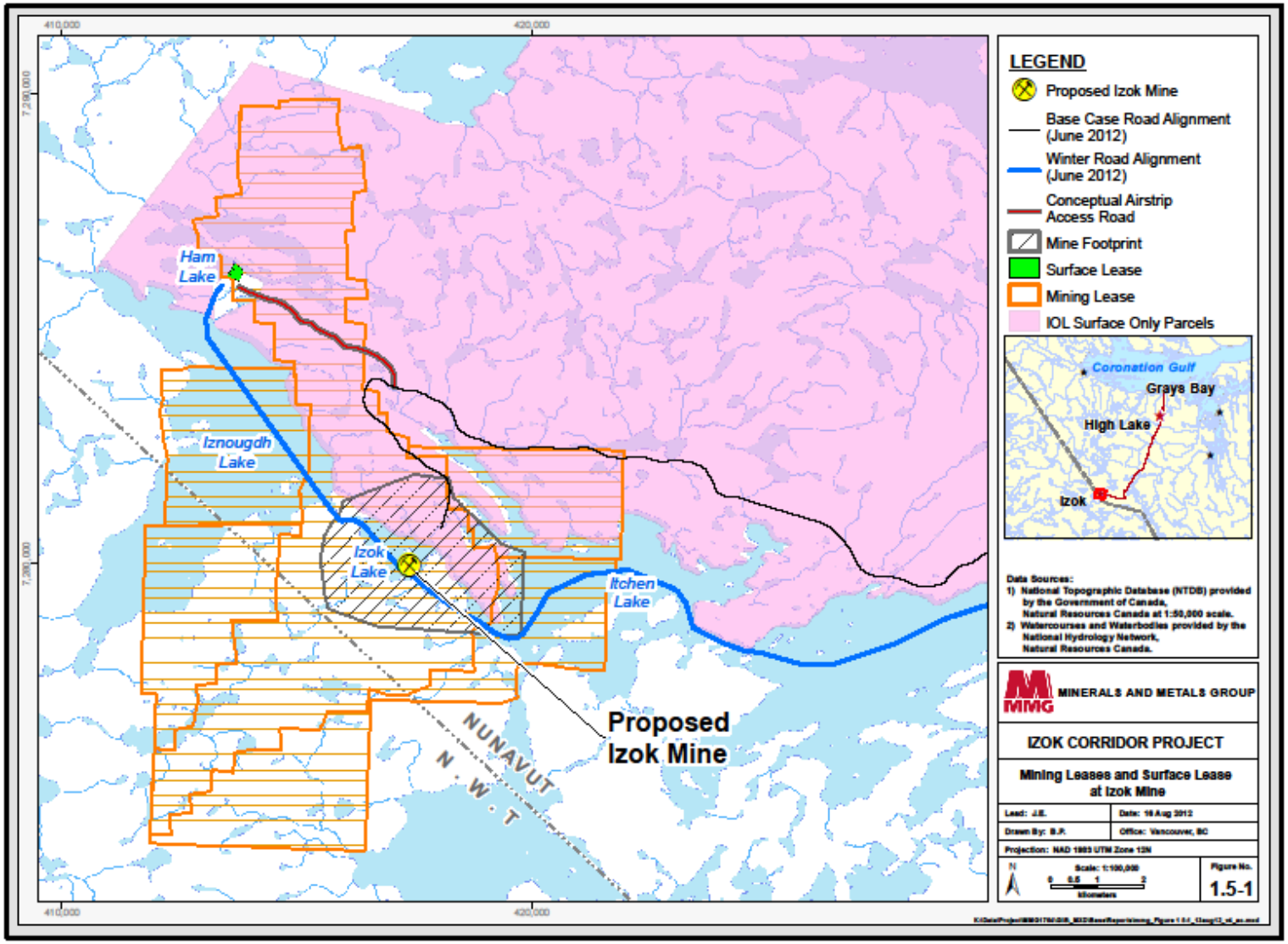

Figure 1.5-1 Mining Leases and Surface Lease at near the Proposed Izok Mine

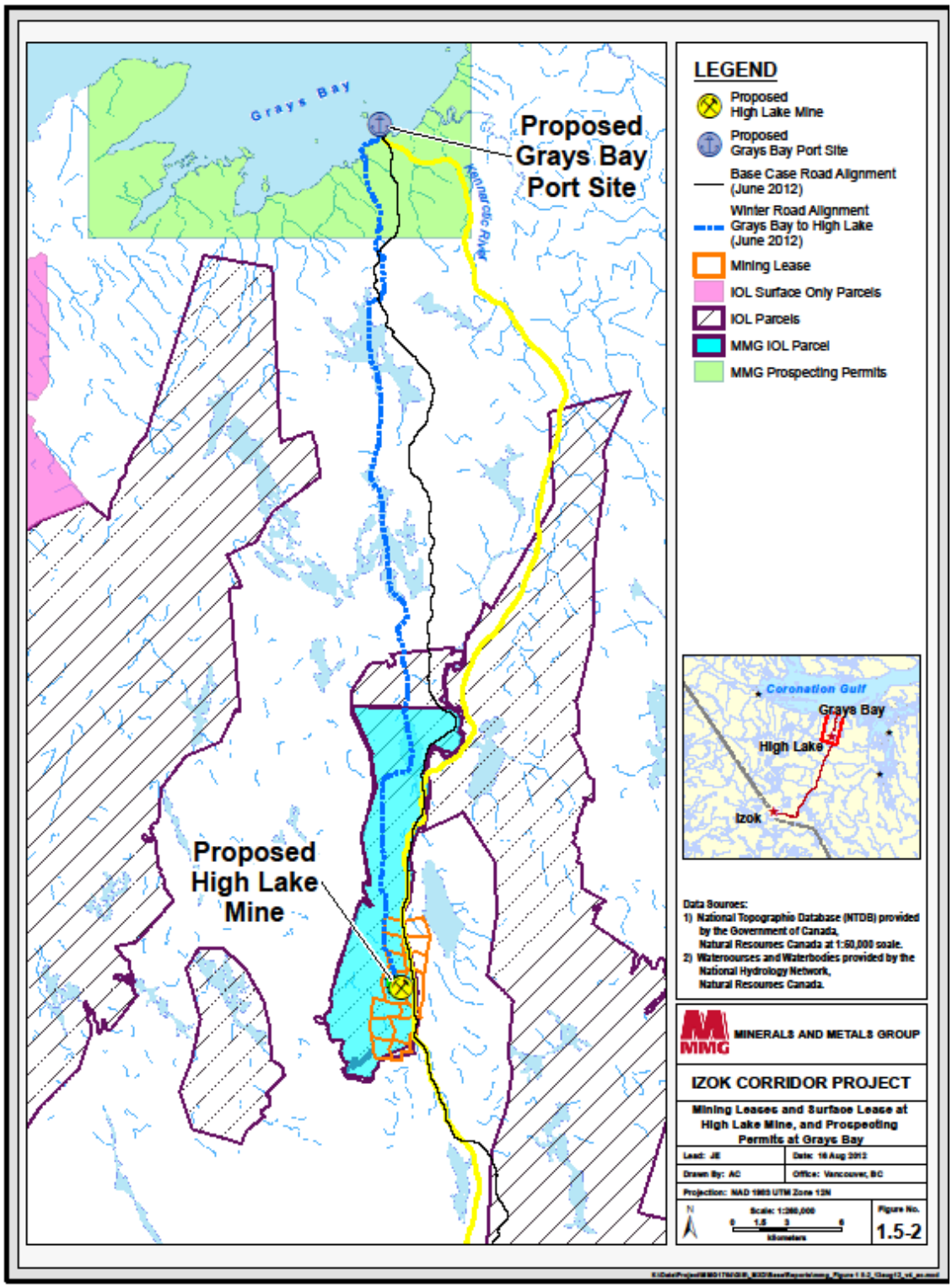

Figure 1.5-2 Mining Leases and Surface Lease near the Proposed Satellite Mine at High Lake, and Prospecting Permits near Grays Bay

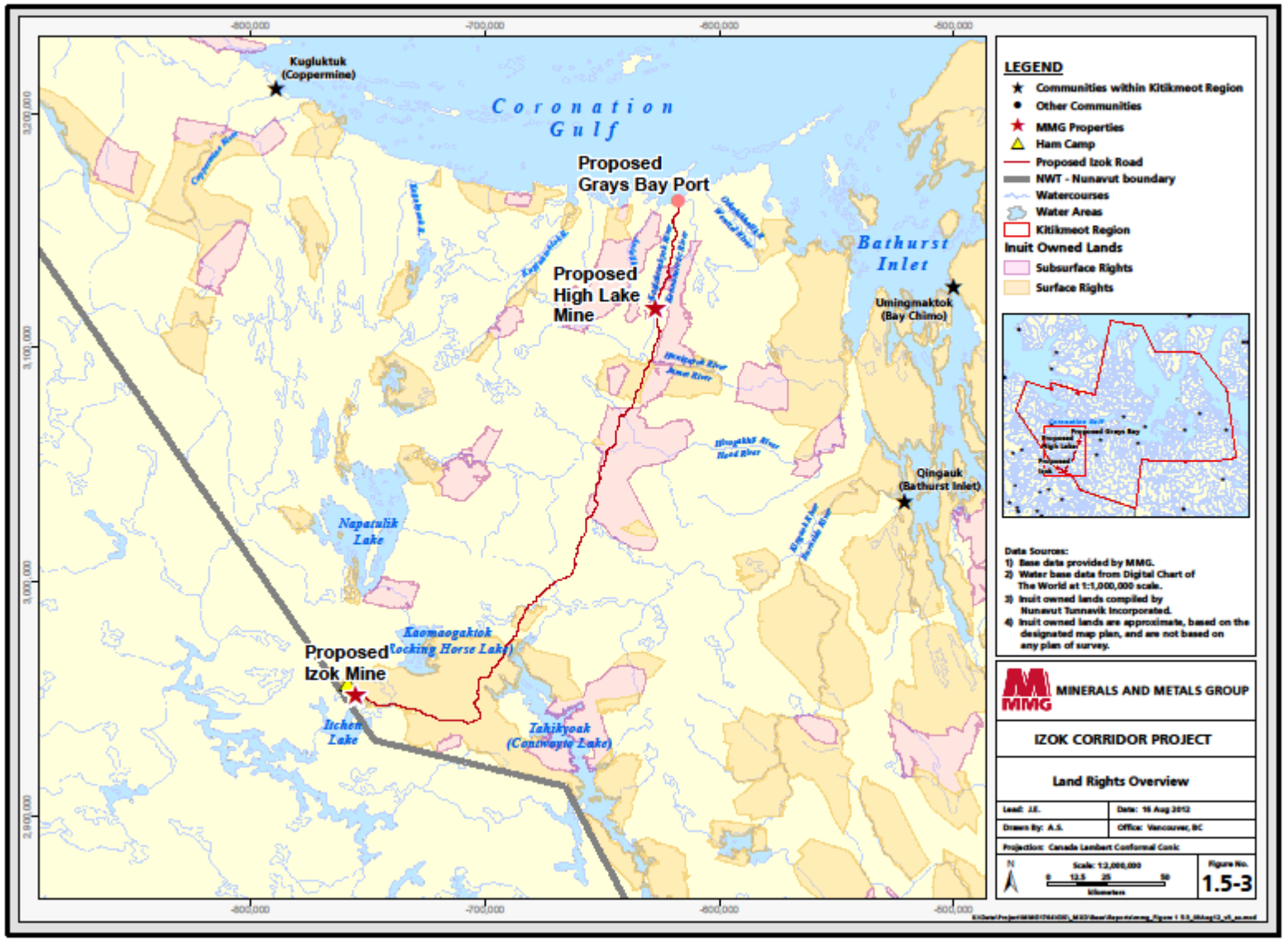

Figure 1.5-3 Land Rights Map

1.6 Existing Exploration Camps

At this time, MMG operates two exploration camps near the proposed Izok and High Lake Mine sites.

The Ham Lake Camp is located near Ham Lake, approximately 7 km northwest of the proposed Izok Mine site. It was first established in the mid 1970s and currently accommodates approximately 50 persons. Exploration at other properties in the area, Hood or Gondor properties is based at the Ham Lake Camp. It is accessible by air only using the gravel air strip near the camp. There are no camps at the Hood or Gondor exploration properties.

The High Lake Camp, located on the shore of High Lake, was established in the 1950s. It can accommodate 35 people. It is accessible by float plane in the ice-free months.

Both exploration camps are accessible by fixed wings on skis during the winter months. Transportation around these sites is primarily via helicopter with limited use of snowmobiles in winter/spring and ATVs in the summer/fall.

There are no facilities at Grays Bay and there are no roads connecting any of these sites.

1.7 Need for and Purpose of the Project

The need for the Project is based on the following factors:

- Zinc usage in emerging countries such as India, Brazil, China has increased dramatically over the past decade, and demand is expected to continue to increase.
- Zinc supply is expected to decline in the near term as several large international zinc mines are projected to close in the next decade, causing a substantial gap in the zinc supply chain.
- Maintaining zinc production levels to meet current contractual agreements following closure of MMG's Century Mine in 2016 is an important component of MMG's business plan.
- Mine development has been identified as one of the primary opportunities to enhance the economy of Nunavut. It will provide employment and business opportunities, as well as skills up-grading and training.
- There are reduced opportunities and benefits flowing from existing mines due to a reduction in the mine life of the only operating mine in Nunavut (Meadowbank) and the move to put the Doris North Mine into care and maintenance.
- There is a current capacity of trained Inuit workers in Nunavut that could be available to work on new Projects, allowing them to continue to support their families in Nunavut.
- The benefits of education, training, job attendance, financial and health benefits to MMG employees can also benefit their families and their communities.
- The opportunity for Nunavut to work with MMG to further enhance its reputation as a jurisdiction where solid processes, resourceful strategies, good management and monitoring plans for environmental protection provide a solid basis for responsible mineral development.

The purpose of the Izok Corridor Project is threefold:

- Maintain or enhance MMG's zinc concentrate production levels and business capacity
- Meet requirements for zinc-based products by industrial, commercial and residential sectors worldwide
- Provide benefits to Nunavummiut through creation of employment and business opportunities, as well as through payment of taxes and royalties to the federal, territorial and Inuit governments

1.8 Guiding Principles for Project Development

1.8.1 Health and Safety

Health and safety is a core MMG value. The company's philosophy is to conduct its operations in a responsible and socially acceptable manner to protect the environment and the health and safety of its employees and the public. As part of the Izok Corridor Project, MMG is dedicated to creating a safe environment for its workers and surrounding communities during all phases of the Project.

1.8.2 Sustainable Development

MMG's approach to sustainable development involves an ongoing commitment to communities, stakeholders, the environment, health and safety, and the economic performance of its business. Its aim is to promote a responsible culture and implement robust corporate systems to consistently meet its sustainability goals.

MMG recognizes that managing environmental responsibilities is essential to long-term success, and aims to minimize its environmental footprint and equip its people with environmental standards to effectively manage the environmental aspects of the Project. Minimizing the effects of the Project on the environment through sound risk management practices is a key objective.

MMG's approach to community involvement in the Project is to consult with, listen and respond openly to community stakeholders, and to be open, honest and as cooperative as possible when issues and concerns do arise. MMG will invest in local Inuit communities as an integral part of its sustainability objective to ensure the communities in the Kitikmeot region and Nunavut receive real benefits from its activities.

1.8.3 Public Participation and Engagement

Meaningful public participation is a fundamental objective of the NIRB review process and is required to ensure that concerns of the general public related to potential environmental effects of a proposed project are considered and addressed. Central to this is the need to engage potentially affected Nunavummiut to discuss potential Project effects on traditional and contemporary land and resource use. In initiating the NIRB review process for the Izok Corridor Project, MMG is committed to a public participation and awareness program to facilitate engagement with communities, residents, Inuit Organizations, Aboriginal groups and other governments.

MMG will engage with the public in discussions to integrate their views into Project planning and selection of the preferred Project alternatives. Further, MMG will provide regular updates throughout the review process.

1.8.4 Traditional Knowledge

MMG recognizes the very important role that Inuit traditional knowledge (TK) plays in planning and design of the Project, assessing and managing the environmental effects and developing mitigation and future monitoring programs. MMG is in discussions with the KIA to ensure that any established protocols for collection, access to and sharing of TK are followed.

1.8.5 Precautionary Principle

MMG is committed to developing the Project in a manner consistent with the precautionary principle to ensure that the Project is built, operated and decommissioned in a manner that maintains the integrity of natural systems. This will include:

- Recognizing areas of uncertainty related to interpretation of data, effects evaluations and effects mitigation and adaptive management
- Identifying assumptions made about the effects of the Project and the approaches to minimize these effects
- Identifying any follow-up and monitoring activities planned, particularly in areas where scientific uncertainty exists in the prediction of Project effects
- Presenting public views on the acceptability of residual Project effects

1.8.6 Mitigation by Design

Mitigation measures are being integrated into the design of the Izok Corridor Project through collaboration amongst the engineering, environmental and socio-economic teams. The following principles are used to guide the design of the Project.

- Minimize disturbance outside the High Lake and Izok Lake drainage areas
- Reduce freshwater consumption through process design and internal recycling
- Conserve energy and reduce fuel consumption through recycling of waste heat for use in processing
- Implement long-term waste management solutions
- Minimize disturbance to biological activities during sensitive times or seasons

1.8.7 Consideration of Climate Change

Climate change will be taken into account in the design of all structures for construction, operations and closure phases of the Project using state-of-practice technology calibrated by precedents from other similar projects in northern settings. Mitigation of the potential effects of climate change on the Project will be addressed in the DEIS and final Project design. This may include accounting for potential changes to permafrost conditions, regional water flows, and site-specific water and heat balances.

1.9 Alternatives

Alternative means of carrying out the Project and alternatives to the Project are being considered as part of the feasibility study currently underway. Plans for several of the Project elements and activities will be further refined during the detailed engineering and based on scientific information, public and regulatory input and traditional knowledge. Alternatives will be presented and assessed in detail in the DEIS.

1.9.1 Alternative Means of Carrying Out the Project

Alternative means of carrying out the Project are defined as various options that may be technically and economically feasible, meet regulatory requirements, minimize environmental and social effects, and provide opportunities for economic and social development. Previous owners of the High Lake and Izok properties and MMG have considered many project configurations and transportation options and these alternative means are described in the Project Description (Section 2). These alternatives assessments were based on pre-feasibility level engineering studies and input from the environmental and socio-economic teams.

Alternatives have been previously considered for the following Project components:

- Mine configuration
- Marine shipping route and frequency
- Processing plant location
- Mineral waste management methods and layout
- Water Management Plan
- Access road routing
- Port site design

Alternatives for selected Project features will be considered further as part of the feasibility study.

1.9.2 Alternatives to the Project

On a global scale, the proposed Izok Corridor Project is one of the most advanced zinc deposits in the world with numerous engineering studies, environmental baseline data, geological and metallurgical data available to support a detailed feasibility study. MMG has identified this Project as a promising target for zinc concentrate production that could be in production in time to offset reductions in supply

when MMG's Century Mine closes. The alternative to this Project for MMG would be to develop a zinc mine in another location or jurisdiction or country. At this time, MMG does not have another zinc property at this advanced stage of development.

1.10 Regulatory Process

MMG is initiating the Nunavut impact review process for the Izok Corridor Project with the submission of this Project Proposal and the following draft permit applications to the KIA, Aboriginal Affairs and Northern Development Canada (AANDC), Nunavut Water Board (NWB) and Fisheries and Oceans Canada (DFO) to assist these authorizing agencies in clarifying their regulatory responsibilities in relation to the Project.

- NWB – Type 'A' Water License Application
- AANDC – Application for Crown Land for the Grays Bay port
- KIA - Land Use Permit Application for the Izok Mine facilities, which are located on IOL
- DFO – Application for a Section 35 Fisheries Act authorization for draining Izok Lake

MMG is submitting the Project Proposal to the NIRB and several other groups as a courtesy, but understands that it is up to the authorizing agencies to submit the Application to the NIRB following their review.

The Type 'A' Water License application is being submitted with this Project Proposal to both the NIRB and the NWB in the interest of initiating a coordinated NIRB-NWB review process.

The Project Proposal is also being submitting to the Nunavut Planning Commission (NPC) for a conformity review against approved land use plans. The Project footprint does not lie within a region of Nunavut for which an approved Land Use Plan exists; the West Kitikmeot Regional Land Use Plan (WKRLUP) is still in draft form. However, the North Baffin Land Use Plan overlaps a portion of the eastward shipping route, requiring NPC review. Once NPC determines that the Project Proposal is in conformity with approved land use plans or a variance has been approved, NPC will forward the Project Proposal to the NIRB for screening.

Given that the Project footprint is entirely within the boundaries of Nunavut and MMG's initial determination that any direct effects of the Project will be limited to Nunavut, MMG anticipates that the screening will lead to a decision that the Project be reviewed under Part 12.5 of the NLCA.

Applications for additional permits and licenses will be filed by MMG during review of the Project and upon receipt of the Project Certificate. Major permits and licenses that will be required for the Project are listed in **Table 1.10-1**.

Table 1.10-1 Major Permits, Approvals and Licenses Required for the Izok Corridor Project

Permit/Approval/Licence	Agency	Activity
Project Certificate	Nunavut Impact Review Board	Required to proceed with Project development
Inuit Impact and Benefit Agreement	Kitikmeot Inuit Association	Required to proceed with Project development
Type 'A' Water Licence	Nunavut Water Board	Water use, waste disposal, and discharge limits to the receiving environment
Class 'A' Land Use Permit	Aboriginal Affairs and Northern Development Canada	Development of mine and roads on Crown Land
Quarry Permit	Aboriginal Affairs and Northern Development Canada	Quarrying required for construction of road, camps, mill foundations etc.
Water Lot Lease	Aboriginal Affairs and Northern Development Canada	Required for the deep-water port at Grays Bay
Quarry Concession Permit	Kitikmeot Inuit Association	Quarrying required for construction of road, camps, mill foundations etc.
Land Use Licence	Kitikmeot Inuit Association	Development of two mines, associated infrastructure, and roads on Inuit Owned Land
Commercial Lease	Kitikmeot Inuit Association	Long-term land tenure required for land use on Inuit Owned Land; land required for infrastructure and activities associated with construction, operations, and closure phases
Production Lease	Nunavut Tunngavik Inc.	Production of mine on Subsurface Inuit Owned Land
Fisheries Authorization	Fisheries and Oceans Canada	Authorization for permanent harmful alteration, destruction, or disturbance to fish habitat (HADD) and appropriate compensation
Explosives Manufacturing Licence	Natural Resources Canada	Manufacture of explosives required for blasting
Explosives Transportation Permit	Natural Resources Canada	Transport of blasting agents and explosives to the mine sites and work areas
Navigable Waters Permit	Transport Canada	Required if mine footprints or associated roads interfere with navigation(e.g., installation of bridges and culverts)
Section 23 Exemption	Transport Canada	Exemption to regulations contained in the Navigable Waters Act (1985) protecting any Canadian waterway from the dumping of wood products, earth, or stone that could impede navigability
Dredging Permit	Transport Canada	Construction of dock facilities at Grays Bay

MMG is committed to complying with all applicable laws, regulations and standards to minimize any potential adverse environmental effects resulting from the company's operations. This includes integrating protective measures into the design of the Project to ensure that regulations are fully considered early in the planning phase, and a commitment to undertaking appropriate corrective actions should unexpected environmental effects occur during the construction, operation, post closure or closure phases of the Project. **Table 1.10-2** presents the applicable legislation and responsible authorities that will likely apply to the Project.

Table 1.10-2 Legislation and Responsible Authorities for Potential Permits, Licences and Authorizations for the Izok Corridor Project

Legislation/Act	Responsible Authorities		
	Federal	Territorial	IPGs/DIO
Arctic Waters Pollution Prevention Act (Arctic Waters Pollution Prevention Regulations) (Arctic Shipping Pollution Prevention Regulations)	AANDC		
Business Corporations Act of Nunavut		DOJ-NU	
Canadian Environmental Protection Act	EC		
Commissioner's Land Act of Nunavut		CGS-NU	
Canada Shipping Act (Ballast Water Control and Management Regulations) (Oil Pollution Prevention Regulation) (Response Organization and Oil Handling Facility Regulation)	TC		
Canada Marine Act (Natural and Man-made Harbour Navigation and Use Regulations)	TC		
Canada Water Act	EC		
Canada Wildlife Act	EC		
Canadian Environmental Protection Act	EC		
Engineers, Geologists, and Geophysicists Act of Nunavut		DOJ-NU	
Emergency Medical Aid Act of Nunavut		HandSS-NU	
Environmental Protection Act of Nunavut (Spill Contingency Planning and Reporting Regulations)		DOE-NU	
Explosive Use Act of Nunavut		WCB-NU	
Explosives Act	NRCan		
Federal Policy on Wetland Conservation	EC		
Fire Prevention Act of Nunavut		CGS-NU	
International Maritime Organization Dangerous Goods Code	IMO		
Labour Standards Act of Nunavut		DOJ-NU	
Marine Transportation Security Act	TC		
Migratory Birds Act Convention Act	EC		
Navigable Waters Protection Act (Navigable Waters Permit) (Dredging Permit)	 TC TC		
Mine Health and Safety Act		DOJ-NU	
Nunavut Archeological and Paleontological Sites Regulations		CLEY-NU	

Legislation/Act	Responsible Authorities		
	Federal	Territorial	IPGs/DIO
Nunavut Land Claim Agreement (North Baffin Regional LUP Compliance) (Project Certificate) (Land Use) (Water Management) (Mineral Rights) (Inuit Impact Benefit Agreement) (Wildlife Compensation Agreement) (Entry and Access)	AANDC		NPC NIRB Regional DIO NWB NTI Regional DIO Regional DIO
Nunavut Waters and Nunavut Surface Rights Tribunal Act Nunavut Waters Regulations (Water Licence) (Inspection)	AANDC		NWB
Public Health Act of Nunavut Camp Sanitation Regulation of Nunavut		HandSS-NU	
Species at Risk Act	EC		
Transportation of Dangerous Goods Act (Transportation of Dangerous Good Regulations)	TC		
Transportation of Dangerous Goods Act of Nunavut (Transportation of Dangerous Goods Regulations of Nunavut)		CGS-NU	
Territorial Lands Act (Canada Mining Regulations) (Territorial Dredging Regulations) (Territorial Lands Regulations) (Territorial Lands Use Regulations) (Territorial Quarrying Regulations)	AANDC		
Wildlife Act of Nunavut (Wildlife Sanctuaries Regulations of Nunavut)		DOE-NU	
Worker's Compensation Act of Nunavut (Worker's Compensation Regulations of Nunavut) (Camp Sanitation Regulations of Nunavut)		WCB-NU	

CGS-NU = Department of Community & Government Services Nunavut; Cley-NU = Department of Culture, Language, Elders and Youth-Government of Nunavut; DIO = Designated Inuit Organization; DOE-NU = Department of Environment-Government of Nunavut; DOJ-NU = Department of Justice-Government of Nunavut; EC = Environment Canada; HandSS-NU = Department of Health & Social Services-Government of Nunavut; AANDC = Aboriginal Affairs and Northern Development Canada; IPG = Institutions of Public Government; NIRB = Nunavut Impact Review Board; NPC = Nunavut Planning Commission; NRCan = Natural Resources Canada; NTI = Nunavut Tunngavik Incorporated; NWB = Nunavut Water Board; PCH = Parks Canada; TC = Transport Canada; WBC-NU = Worker's Compensation Board-Government of Nunavut

1.11 Exceptions Application

After completion of the NIRB review process, mining projects in Nunavut must apply for and receive the relevant licenses and approvals prior to commencement of any site development. These approvals are conditional on a NIRB Project Certificate. However, as set out in Article 12.10.2(b) of the NLCA,

approvals or licenses for specific development activities may be issued if the activity can, according to the NIRB, proceed without being part of the review.

MMG intends to submit an Exceptions Application to the NIRB for approval to proceed with pre-construction works prior to issuance of the Project Certificate for the Izok Corridor Project (refer to section 2.1.2). Applications for any licenses or permits required to undertake these specific activities will also be submitted to the Authorizing Agencies with the Exceptions Application.

1.12 DFO Operational Statement Conformity

Fisheries and Oceans Canada has published several Nunavut Operational Statements to which activities in Nunavut must conform. The Operational Statements that apply to the Izok Corridor Project include:

- Bridge Maintenance – All-Weather Road
- Clear-Span Bridges – All-Weather Road
- Culvert Maintenance – All-Weather Road
- Ice Bridges and Snow Fills – Winter Ice Road (construction phase only)
- Installation of Moorings – Grays Bay Port Site
- Temporary Stream Crossing – All-Weather Road (construction phase only)
- Timing Windows – All-Weather Road, Izok Mine and High Lake Mine (construction phase only)

MMG will meet the conditions of these seven Operational Statements to protect fish and fish habitat in the Project area (refer to MMG Letter to DFO, Appendix D).

1.13 Conformity to Land Use Plans

Projects in Nunavut are expected to conform to applicable land use plans before any permits or authorizations are issued. In the absence of an approved land use plan, a conformity determination by the NPC is not required.

The footprint of the Izok Corridor Project is located in an area of Nunavut for which there is no approved land use plan (LUP). Nonetheless, MMG recognizes the importance of the draft WKLUP (NPC 2005) in guiding early planning and development of the Project, and has integrated many of the social, cultural and ecological goals of the plan into the Project through mitigation by design (refer to section 2.9). Mine, road and port construction and operations will be conducted in a manner that protects the long-term integrity of the environment. In particular, activities of the company and its employees will adhere to the Code of Good Conduct for Land Users as established by the NPC, and the terms of the DIAND Caribou Protection Measures (DIAND 1992).

Marine shipping activity for the Project will occur within the North Baffin planning region, for which an approved LUP exists (NPC 2000). MMG will consider requirements of the Plan to guide development of its operations, particularly as it relates to marine transportation corridor guidelines.

1.14 Organizational Structure

The Project Proposal is organized as follows.

Section 1 Introduction provides an introduction to MMG, the Izok Corridor Project, and the required federal and territorial approvals, permits, and licences.

Section 2 Project Description provides a preliminary Project description, components and activities that may interact with the environment during all phases of the Project, and information on employment.

Section 3 Public Engagement provides a description of past, current and future public engagement efforts of MMG, including issues raised by stakeholders at this early stage.

Section 4 Traditional Knowledge provides information on existing traditional knowledge in the Project area, planning for future information collection, and plans for incorporating traditional knowledge into the Project design and EIS.

Section 5 Existing Biophysical Environment describes currently available information on the existing biophysical environment, including identification and characterization of environmental components that may interact with the Project.

Section 6 Existing Human Environment describes currently available information on the existing socio-economic and cultural environment, including identification and characterization of socio-economic, cultural and archaeological components that may interact with the Project.

Section 7 Potential Project Environmental Effects provides preliminary identification of potential interactions between the Project and the environment, the potential effects of these interactions, and possible mitigation measures and monitoring programs.

Section 8 Potential Project Socio-economic Effects provides a preliminary identification of potential socio-economic and cultural interactions with the Project, the potential effects of these interactions, and possible mitigation measures and monitoring programs.

Section 9 Human Health Ecological Risk Assessment describes the approach that will be used for assessing potential ecological and human health risks and potential effects pathways associated with the Project.

Section 10 Cumulative and Transboundary Effects Assessments describes the approach that will be taken in assessing potential cumulative and transboundary effects associated with the Project.

Section 11 Accidents and Malfunctions describes the approach that will be taken in assessing the risks and consequences of potential accidents and malfunctions associated with the Project.

Section 12 Environmental Management Plans describes the planned organizational management for the Project, integrated policies, and key programs that will be implemented for all phases of the Project.

Section 13 Reference List provides citations for all literature sources cited in text.