

**IZOK / HOOD / GONDOR**  
**(IZOK CORRIDOR)**



**2016 Annual Report Submittal**  
**2BE – IZK1217**

Presented  
**January 2017**

**MINERALS AND METALS GROUP**  
PO Box 91460, West Vancouver, BC, V7V3P1  
TEL. 778 373 5600  
FAX 778 373 5598

## **TABLE OF CONTENTS**

Project Description	6
Izok Exploration Activity 2016	6
Hood Exploration Activity 2016	6
Planned Activity 2017	6
Environmental	6
Water Usage	7
Wildlife	7
Community	7
Air Operations	7
Reclamation Work	8
Waste Removal	8
Spill Contingency and Abandonment and Restoration Plans	8
Site Inspections	8
Permitting	9

## **FIGURES**

Figure 1 : Project Regional Location	4
Figure 2 : IOL package and Surface Lease (air photo)	5
Figure 3 : IOL package and Surface Lease	5

## **APPENDICES**

Appendix I : 2015 Inspection Reports	10
Appendix II : Permitting	12
Appendix IX : Waste Management Plan	13
Appendix X : Spill Response Plan	13
Appendix XI : Abandonment and Restoration Plan	13
Appendix XII: Photos	13

## **PROJECT DESCRIPTION: IZOK / HOOD**

The Minerals and Metals Group (MMG) is a mining development company that has the mineral rights for the Izok and portions of the Hood River properties.

The Izok property is a VMS style poly-metallic deposit hosted in felsic rocks, the primary interest being its copper and zinc content. The property consists of three mineral leases and three claims. It is located approximately 300 km north of Yellowknife and is situated on both Crown and Inuit Owned Land (see figure 1).

The Izok Lake property has been well documented and explored by various groups over its 40 year history. Although activity in the region is documented since the 1960's, the first significant discovery was made in the mid-1970's by Texas Gulf. Since then, Izok Lake has played host to a number of interested groups, including Minnova and Inmet prior to the involvement of Wolfden and the subsequent series of takeovers that led the property to MMG.

MMG continued to test for extensions of the Izok resource until 2014, and actively followed up geophysical targets with exploration drilling. Although under a series of different companies (Wolfden/Zinifex/Oz) exploration has been continually managed under more or less the same technical team since the acquisition of Wolfden by Zinifex in 2007. During this period there has been several drill campaigns aimed at expanding the resource. The intervening years saw continued surface mapping and geophysical testing of surrounding rock units in the hopes of identifying extensions. Included in this regional work were the adjacent historic showings of Gondor and Hood River, previously explored by Kennecott and Inmet in the 1970s and 80s. Both locations host VMS style mineralization in greenstone geology, and represent potential additional resources that due to their proximity to Izok, are of interest.

Izok's remote location and the logistical challenges involved have discouraged possible developers over the years and it remains one of the last undeveloped large high grade base metal deposits.

Having determined that the project continues to fall short of positive economics at this time, MMG has no immediate plans to continue exploration efforts around the Izok site. The long term plan for the project site involves care and maintenance.

The project is supported by a 50 man camp located on Ham Lake, approximately 5km North of Izok Lake where the mineral resource is located. The camp is located on land under surface lease with the Kitikmeot Inuit Association that has been annexed from IOL CO-05.

Figure 1 : Location Map

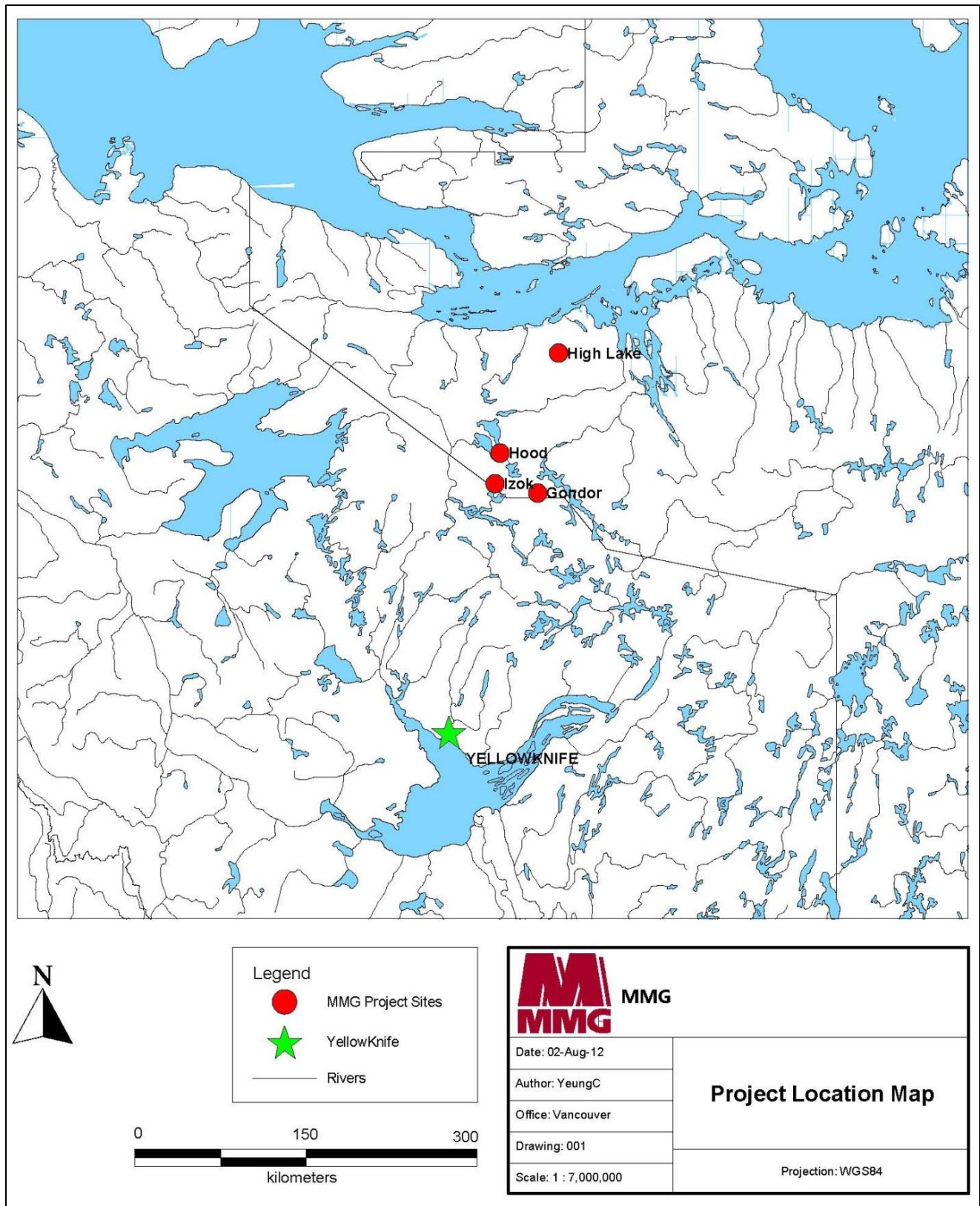


Figure 2 : IOL Package and Surface Leases (air photo)

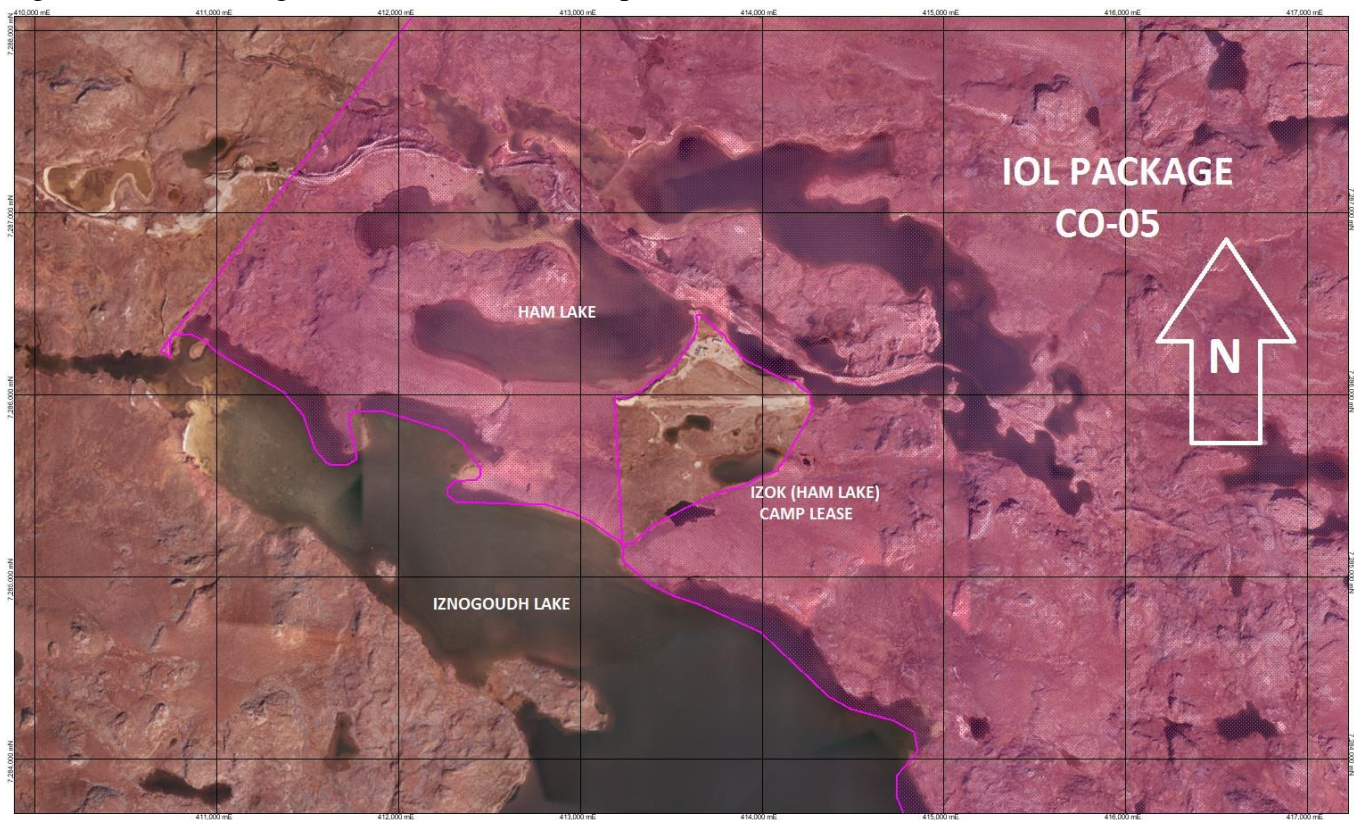
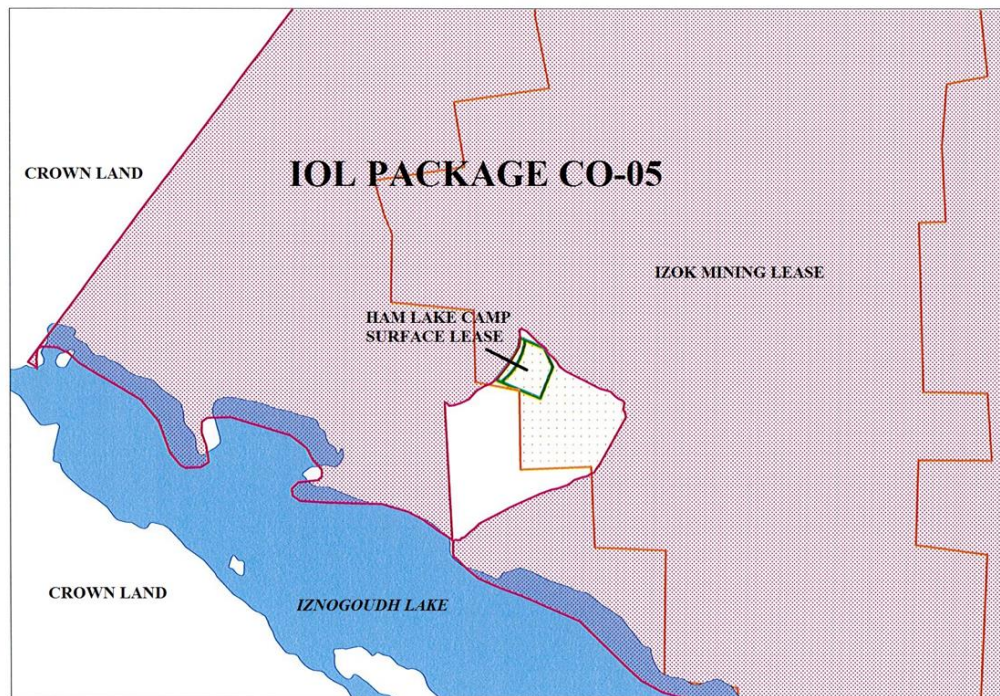


Figure 3 : IOL Package and Surface Leases



## **IZOK / HOOD / GONDOR EXPLORATION ACTIVITY SUMMARY 2008-2014:**

Exploration and development activity surrounding the Izok resource during the last 8 years of MMG operations has included extensive diamond drilling and engineering work associated with feasibility studies. In total some 180 diamond drill holes were completed. Additional information regarding drilling programs can be found in the annual reports that have been submitted each year.

## **IZOK / HOOD / GONDOR FIELD PROGRAM 2016:**

There was no field work carried out neither at Izok nor at any of the other satellite locations in 2016. The site was effectively put on long term care and maintenance following last year's completion of reclamation work which reduced the site to the Surface Land Lease. Following inspections by AANDC and KIA representatives in August 2015, the Land Use Permits associated with the exploration activities on both Crown and IOL ground surrounding the site were closed. In August of 2016 the Ham Lake site was visited by MMG representatives Ian Neill and Scott Trusler, accompanied by Malcom McLaren of Discovery Mining Services in order to conduct a visual inspection of the sites condition. A wheeled aircraft contracted from Air Tindi was used and allowed landing at the gravel air strip which services the site.

## **PLANNED EXPLORATION PROGRAM 2017:**

There is no proposed field program for the 2017 field season. Following reclamation work carried out in 2015, the Land Use Permits associated with Exploration activities were closed out and the site has been put on long term care and maintenance.

## **ENVIRONMENTAL:**

Environmental baseline work was discontinued at the end of the 2014 season, primarily due to MMG's decision to not proceed with feasibility work at this time. Weather data normally collected bi-annually has also now been discontinued. Wind direction and speed, temperature, and precipitation data is routinely monitored during field operations. .

No drilling was undertaken in 2016, and therefor there is no associated environmental data presented in this report.

Normally an annual review of the Spill Contingency Plan is conducted, modifications are made if necessary, and the document is included in the appendices of the annual report. As the site is effectively

on long term care and maintenance with no activity, and all fuel and lubricants have been removed, the Plan has not been modified.

### **WATER USAGE:**

Water usage is divided into Industrial and Domestic applications, and is normally monitored if there is activity at the site and the camp is occupied. Water usage reporting normally included in the appendices is absent. The project is presently permitted for 100m<sup>3</sup> per day total volume for both applications. On average the Camp consumes roughly 4m<sup>3</sup> per day during capacity occupancy. When operating, the Ham Lake camp draws its water from Ham Lake by means of a submersible electric pump. The intake on the pump is screened.

Industrial usage is limited to those activities associated with drilling.

### **WILDLIFE:**

Wildlife encounters and sightings during operations are normally documented by field personnel, and a copy of the 'sightings log' would be included in the appendices. As specified in our permit, low level flying is avoided unless absolutely necessary for operations and special care is taken during sensitive periods of animal life cycles. A copy of MMG's Wildlife Management Plan is provided in digital format.

### **COMMUNITY:**

MMG's stakeholder relations officer in Kugluktuk, Mr. Donald Haviyok, acts as our community liaison. His primary job is to keep local community members informed of our activities, and address concerns and questions they may have on behalf of the company. He is also normally instrumental in the hiring of local staff, aiding applicants in resume preparation and conducting initial interviews on our behalf. Due to the absence of activity, there were no locally hired temporary staff employed by MMG during 2016. The table showing employment numbers normally included in this report is therefore absent.

### **AIR OPERATIONS:**

Due to inactivity at the project site, there was no regular air operations conducted during 2016, accordingly the table that normally is included in this report documenting fixed and rotary wing activity is absent. It can be noted that a single flight was made to site in August using a wheeled aircraft, in order to visually inspect the condition of the site.

During normal operations, low level flight is avoided in order to minimize noise impacts on local wildlife. When operational areas coincide with seasonal migration paths or calving grounds, activity is diverted or suspended.

## **RECLAMATION WORK:**

There was no reclamation work carried out at Izok in 2016. The 2015 efforts allowed MMG to put the Ham Lake Camp site on long term care and maintenance. All presence on surrounding Crown and IOL lands has been removed and the associated Land Use Permits have been closed following regulatory inspections in late 2015. Remaining infrastructure is contained within the Surface Lease.

It can be noted that following the visual inspection of the site by MMG representatives, Ian Neill returned to the site the following day with plywood, tools, and support from Discovery Mining Services in order to stabilize several core racks that were leaning precariously. Their efforts should prevent further collapse of the core racks this winter, and the issue will be followed up on next season in a similar visit.

## **WASTE REMOVAL:**

There was no waste removal from the Izok site in 2016 due to inactivity.

## **SPILL CONTINGENCY AND ABANDONMENT AND RESTORATION:**

The Spill Contingency and Abandonment and Restoration Plans for the site underwent review and modification in January 2014 and the updated versions were forwarded to AANDC and the NIRB. The Plans have historically been included in the annual report submittals to regulatory agencies. MMG has now closed out the Land Use Permits associated with both Crown and IOL ground, and there was no site activity in 2016. All fuel and lubricants have been removed from site, therefore there has been no modification to the Spill Contingency Plan. The Abandonment and Restoration plan also remains unchanged from the version submitted last year.

## **SITE INSPECTIONS:**

To our knowledge, regulatory agencies made no inspection visits to the Izok site in 2016.

Site inspections of the Izok Corridor Project sites were conducted in 2015 by both Eva Paul and Baba Pederson of Aboriginal Affairs and Northern Development (also acting on behalf of the Nunavut Water Board). In addition a visit was made by representatives from the Kitikmeot Inuit Association. These inspections were associated with permit closure, and copies of those reports are included in the Appendices with dates and findings.



**PERMITTING:**

The LUP (N2012C0005) issued by Aboriginal Affairs and Northern Development Canada which served to cover MMG's exploration activities in both the Izok and the Hood/Gondor project areas, was closed out at the end of 2015.

The Land Use Agreement for operating on the IOL ground of the Kitikmeot Inuit Association (KTL306C019) was similarly closed out following inspections in late 2015.

The current Water License ( 2BE – IZO1217 ) held with the Nunavut Water Board (NWB) was approved in 2012 and carries an expiry date of December 31, 2017.

Although no activity is anticipated, MMG has decided to maintain the water license associated with the Izok project for the time being. It is still undecided as to whether MMG will seek to renew.

## **APPENDICES**

# Appendix I : 2015 Site Inspections



Aboriginal Affairs and Northern Development Canada

Affaires autochtones et Développement du Nord Canada

## WATER LICENCE INSPECTION FORM

Original  
 Follow-Up Report

Licensee <b>MMG</b>		Licensee Representative <b>Peter Cullinane</b>	
Licence No. / Expiry <b>2BE-IZO1217</b>		Representative's Title <b>Field Program Manager</b>	
Licence No. / Expiry <b>2BE-HIG1217</b>		Land / Other Authorizations	
Date of Inspection <b>July 14 and 15, 2015</b>		Inspector <b>Eva Paul</b>	
Activities Inspected <input checked="" type="checkbox"/> Camp <input type="checkbox"/> Drilling <input type="checkbox"/> Mining <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Reclamation <input checked="" type="checkbox"/> Fuel Storage <input type="checkbox"/> Roads/Hauling <input type="checkbox"/> Other:			

Conditions:	A - Acceptable	C - Concern	U - Unacceptable	NA - Not Applicable	NI - Not Inspected			
<b>Water Use</b>	Condition	Comment	<b>Site Conditions</b>	Condition	Comment	<b>Haz/Mat Management</b>	Condition	Comment
Intake/Screen	A		Water Management Structures	A		Storage	A	4
Flow Measure. Device	A		Culverts / Bridges	N/A		Spills	A	
Source: Ham Lake	A		Drainage	A		Spill Plan	A	
Water Use:	A		Erosion / Sediment	A		<b>Administrative</b>		
Recirculation ( y / n )	A		Mitigation Measures	A		Records	A	
			Reclamation Activities	A	3	Reports	NI	
			Materials Storage	A		Plans	NI	
<b>Waste Disposal</b>			Signage	A		Notifications	A	
Waste Water	A		<b>Monitoring</b>			<b>Other</b>		
Solid Waste	A	1	Sample Collection / Analysis	NA		Future closure	A	5
Hazardous Waste	A	2						
*The number in the comments field will correspond with specific comments provided below.								
Samples taken by Inspector:			Location(s):					
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No								

<b>SECTION 1</b>	<input checked="" type="checkbox"/> Comments (s.1 and 2)	<input type="checkbox"/> Non-Compliance with Act or Licence (N/A)	<input type="checkbox"/> Action Required (N/A)
<p>MMG is preparing its two Nunavut projects for longer-term closure. An inspection was conducted on July 14 and 15 of camps and reclamation activities pertaining to MMG's 2BE-IZO1217 and 2BE-HIG1217 licences.</p> <p>Izok Lake Project: Ham Lake Camp (N65°41'08", W112°52'49") and Hood Core Facility (N66°05'04", W112°43'06")</p> <p>High Lake Project: High Lake Camp (N67°22'44", W110°50'40") and High Lake East/Moly Mag Camp (N67°08'36", W109°52'03")</p> <p>I was accompanied by Peter Cullinane, Field Program Manager for the projects. MMG graciously hosted me for several days at Izok to conduct work in the area, allowing for a fulsome understanding of the work that has been undertaken at these sites. It is clear from the state of the camps that MMG's focus this season has been to eliminate any environmental liability from the closure of the projects. Work was completed at High Lake in the spring, and three people were on-site at Izok to carry out the camp closure.</p> <ol style="list-style-type: none"> <li>1. An impressive amount of waste has been backhauled. Nothing but neatly stacked drill rod was in evidence at High Lake. Several more loads were anticipated from Izok following my inspection. Backhaul records were available for inspection.</li> <li>2. Peter indicated that hazardous waste is all anticipated to be removed from site at Izok, and has been removed from High Lake. The few waste barrels that remain at Izok are currently in use, labelled, and contained within a berm.</li> </ol>			





<b>SECTION 2</b>	<input checked="" type="checkbox"/> <b>Comments</b>	<input type="checkbox"/> <b>Non-Compliance with Act or Licence</b>	<input type="checkbox"/> <b>Action Required</b>
<p>3. The footprint of the facilities has been greatly reduced, and areas no longer in use have been contoured and are restricted from access to promote re-vegetation. Several tents were removed from High Lake, as well as the core/cutting shacks. High Lake East (Moly Mag) has been completely removed with only core racks remaining. Drilling equipment that remains at Izok is ready for backhaul</p> <p>4. MMG is working with a nearby project to re-distribute consumables such as fuel, drill lubricants, and drill salt. All fuel and drill supplies were removed from High Lake. Peter indicated that all the remaining fuel at Izok would be consumed or removed from site prior to closure. Bulk fuel tanks have been emptied and swabbed out to prevent any potential for leakage. Vents and hoses are sealed. Only minimal hazardous materials will remain on-site, and those are in containment and within structures. The majority of the vehicles and equipment have been drained of fluids to eliminate leaks.</p> <p>5. I am impressed with the measures that have been taken to all-but-eliminate potential future environmental liability from this site. Occasional monitoring of the remaining facilities will be required, and if permanent closure of the sites are sought, or cancellation of the water licences, then all of the requirements of the Abandonment and Restoration Plan, as well as of the Licence (Part I) must be met.</p> <p>It has been a pleasure to inspect and work out of MMG's sites since I came to AANDC. MMG's excellent standing in compliance and environmental stewardship has made a mark in the region (as well as removing many) under Peter's leadership.</p>			
<b>SECTION 3</b>	<input type="checkbox"/> <b>Comments</b>	<input type="checkbox"/> <b>Non-Compliance with Act or Licence</b>	<input type="checkbox"/> <b>Action Required</b>
N/A			

Licensee or Representative <b>PETER CULLINANE</b>	Inspector's Name <b>Eva Paul</b>
Signature 	Signature 
Date <b>JULY 16 2015</b>	Date <b>16-7-15</b>

Office Use Only: Follow-up report to be issued by Inspector <span style="float: right;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No         </span>
--

## Appendix II : Permitting



### NUNAVUT WATER BOARD WATER LICENCE RENEWAL

Licence No. 2BE-IZO1217

Pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

MMG INC.

(Licensee)

26<sup>th</sup> FLOOR -1177 WEST HASTINGS ST., VANCOUVER, BC V6E 2K3

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water or dispose of waste for a period subject to restrictions and conditions contained within this Licence renewal:

Licence Number/Type: 2BE-IZO1217 TYPE "B"

Water Management Area: NUNAVUT 07

Location: IZOK LAKE PROJECT  
KITIKMEOT REGION, NUNAVUT

Classification: MINING AND MILLING UNDERTAKING

Purpose: DIRECT WATER USE AND DEPOSIT OF WASTE

Quantity of Water use not  
to Exceed: ONE HUNDRED (100) CUBIC METRES PER DAY

Date of Licence Issuance: DECEMBER 20, 2012

Expiry of Licence: DECEMBER 31, 2017

This Licence renewal issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

**Thomas Kabloona,  
Nunavut Water Board  
Chair**

.../2

### **Appendix III : Waste Management Plan**

The waste management plan remains unchanged from that provided in previous reports. It has not been revised due to the inactivity of the Slave Project sites. A copy in digital form has been provided on the CD that accompanies this report.

### **Appendix IV : Spill Contingency Plan**

The Spill Contingency Plan has not been modified from the version provided in last years annual reporting due to inactivity at the Slave Project sites. It is provided in digital form on the CD that accompanies this report.

### **Appendix V : Abandonment and Restoration Plan**

The complete Abandonment and Restoration Plan has not been modified from the version provided in last years reporting due to inactivity at the Slave Project sites. It is provided in digital form on the CD that accompanies this report.

### **Appendix VI : Photos Izok Site**



Approaching Ham Lake Camp (Izok) from gravel airstrip. The core racks that are mentioned in the report can be seen to the extreme left of picture.



Izok (Ham Lake) site. The equipment and structures indicated by the orange circles were removed in 2015.  
Photo – July 2015



“Hood” site core shack and core racks – Photo July 2015