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NUNAVUT WATER BOARD  
NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

File No.: **2BB-MEL1424**

July 31, 2015

David Frenette  
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**RE: NWB Licence No. 2BB-MEL1424**

Dear Mr. Frenette,

Please find attached Licence No. **2BB-MEL1424** issued to Agnico-Eagle Mines Ltd. by the Nunavut Water Board (NWB) pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada (Nunavut Land Claims Agreement or NLCA)*. The terms and conditions of the attached Licence related to water use and waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee may be in contravention of the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least three months prior to the Licence expiry date.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public interest, to hold a public hearing. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment, however a minimum of sixty (60) days is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and are acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. This information is attached for your consideration.<sup>1</sup>

Sincerely,



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Lottie Toomasie  
Nunavut Water Board  
Vice-Chair

LT/kk/mp

Enclosure: Licence No. **2BB-MEL1424**  
Comments – AANDC and EC

Cc: Kivalliq Distribution List

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<sup>1</sup> Aboriginal Affairs and Northern Development Canada (AANDC), May 29, 2014; Environment Canada (EC), May 12, 2014.

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## DECISION

### LICENCE NUMBER: 2BB-MEL1424

This is the decision of the Nunavut Water Board (NWB) with respect to the applications dated March 4, 2014 and April 11, 2014 for a renewal/amendment of a Water Licence made by:

#### AGNICO-EAGLE MINES LIMITED.

to allow for the use of water and disposal of waste during camp operations and activities related to Mining that include exploration, drilling on land and on ice, and trenching at the Meliadine West Gold Project located within the Kivalliq Region, Nunavut generally located at the geographical coordinates as follows:

#### Project Extents

NW:	Latitude: 63° 07' 41" N	Longitude: 92° 47' 18" W
NE:	Latitude: 63° 07' 22" N	Longitude: 91° 56' 36" W
SE:	Latitude: 62° 50' 51" N	Longitude: 91° 56' 15" W
SW:	Latitude: 62° 50' 43" N	Longitude: 92° 46' 13" W

#### Camp Location(s)

Latitude: 63° 01' 43" N      Longitude: 92° 10' 12" W

## DECISION

After having been satisfied that the application was in conformity with the Keewatin Regional Land Use Plan<sup>1</sup> and exempt from the requirement for screening as described within Section 12.4.3 by the Nunavut Impact Review Board<sup>2</sup> in accordance with Article 12 of the *Nunavut Land Claim Agreement (NLCA)*, and the activities therein remain subject to the terms and conditions recommended in the August 10, 2012 Screening Decision Report, the NWB decided that the application could proceed through the regulatory process. In accordance with S.55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (Act)* and Article 13 of the *NLCA*, public notice of the application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *NLCA* and of the *Act*, waived the requirement to hold a public hearing, and determined that:

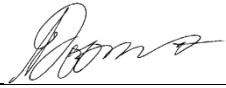
**Licence No. 2BB-MEL0914 be renewed as Licence No. 2BB-MEL1424 subject to the terms and conditions contained therein (Motion #: 2014-B1-019).**

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1 Nunavut Planning Commission (NPC) Conformity Determination, dated June 24, 2014.

2 Nunavut Impact Review Board (NIRB) Screening Exemption Decision, dated July 4, 2014.

Signed this 22nd day of July 2014 at Gjoa Haven, NU.



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Lottie Toomasie  
Nunavut Water Board  
Vice-Chair

LT/kk/mp

## **LICENCE NUMBER: 2BB-MEL1424**

### **I. INTRODUCTION**

Comaplex Minerals Corp. (Comaplex) and its joint venture partners have been conducting mineral exploration in the Meliadine West area since June, 1995. On July 6, 2010, pursuant to a plan of arrangement, Agnico-Eagle Mines Limited. (AEM or Licensee) acquired all of the shares of Meliadine Holdings Inc. In preparation for this transaction, the name of Comaplex was changed under the Alberta Business Corporation Act to Meliadine Holdings Inc. (MHI). To facilitate amalgamation with AEM, MHI was transferred on December 22, 2010 into a numbered Ontario company (1816276 Ontario Inc.). Effective as of January 1, 2011, the 1816276 Ontario Inc. was amalgamated with AEM.

The Meliadine property is situated within the Meliadine greenstone belt, in the Hearne sub-province of the Churchill Province. Rocks of the Meliadine belt are part of the Rankin Inlet Group. The Meliadine trend is defined by northwest trending stratigraphy and a regional structure known as the Pyke Break or Fault. The gold mineralization at Meliadine is found in quartz-vein stock works, laminated veins and sulphidized iron formation in complexly folded and sheared iron formation rocks, sedimentary rocks, and volcanic rocks in or near certain volcanic-sedimentary contacts. The “ore” zone in this underground exploration program (the Tiriganiaq gold deposit) is in a shear off of the Pyke Fault. This gold deposit includes a series of mineralized sheets of varying thickness dipping north and plunging east and west. The minerals in the ore zones include both carbonate bearing rock (basic) and sulphide bearing (acidic) rock.

The lands in the exploration area are Inuit Owned Lands (IOL) pursuant to the Nunavut Land Claims Agreement (NLCA). Land use for the exploration activities has been authorized by the Kivalliq Inuit Association (KivIA), the regional Inuit Association who holds title to IOL in the Kivalliq Region of Nunavut.

The Meliadine Camp is located approximately 25 km northwest of Rankin Inlet (63°01'43"N latitude and 92°10'12"W longitude). The camp, with a capacity for up to 75 persons, is located approximately five metres above lake level on a peninsula surrounded on three sides by Meliadine Lake.

The results from the Underground Exploration program and Bulk sampling program conducted by Comaplex in the fall of 2008 confirmed important aspects of the continuity and grade of gold mineralization at the Tiriganiaq Gold Deposit, and a Feasibility Study was subsequently conducted. On May 4, 2011, the “Meliadine Gold Mine” project proposal was submitted by AEM to the Nunavut Impact Review Board (NIRB) for the environmental assessment. The project proposal is currently at the final stages of NIRB review process.

### **II. FILE PROCEDURAL HISTORY**

On December 18, 1998 an application for a new Water Licence was filed by WMC International Ltd. (WMC). The application was to allow WMC the use of water and disposal of

waste for its Meliadine West Gold Exploration Project. The Nunavut Water Board (NWB or Board) issued Water Licence No. NWB2MEL9901 on March 3, 1999. After an amendment on July 24, 2000, and renewals of the Water Licence on March 2, 2001 and March 21, 2003, the License was assigned to Comaplex on June 11, 2004. An amendment to the Licence was granted on July 20, 2005, and the Licence was renewed again on February 17, 2005.

The next renewal Licence was issued on February 23, 2007 to Comaplex for a diamond drilling program in support of their gold exploration program. Amendment No.1 was issued on July 31, 2007 to allow for a bulk sampling program, associated activities and additional infrastructure. This amendment, which advanced the scope of the project to include bulk sampling by way of underground decline, resulted in the classification change from a drilling exploration project to an advanced exploration (bulk sample) project and therefore the change in file designation from a 2BE to a 2BB, or Licence No. 2BB-MEL0709. Amendment No. 2 was issued on December 2, 2008 which allowed for the construction of a lined fuel berm for the purpose of holding fuel bladders and drums, with a total capacity of 1,792,000 L. The Licence term was also extended with this amendment until July 31, 2009.

On July 31, 2009 the Licence was renewed as Licence No. 2BB-MEL0914 with an expiry date set at July 31, 2014, to allow for the use of water ( $90 \text{ m}^3 \text{ per day}$ ) and disposal of waste during exploration drilling, camp operations, maintenance of bulk sample infrastructure and conducting a Feasibility study at the Meliadine West Gold Project. On June 28, 2010, the License was amended (Amendment No. 1) to allow for an increase in water use from ninety ( $90 \text{ m}^3$  to  $290 \text{ m}^3 \text{ per day}$ .) On July 19, 2010, the Board granted Amendment No. 2 to the Licence to allow for drilling within thirty one (31) metres of the ordinary High Water Mark of water bodies specified in the application, during geotechnical drilling along a proposed all-weather road from Rankin Inlet to the proposed mine site, the proposed Discovery spur road, and for the purpose of locating proposed mine infrastructure in Rankin Inlet, for the Meliadine Gold Project. Amendment No. 3 was issued on January 6, 2011 to allow for the extension of the present exploration decline in order to facilitate underground drilling and bulk sampling. On September 10, 2012, the Board issued Amendment No. 4 to allow for the construction, operation and closure of temporary non-hazardous solid waste disposal facility (Landfill) at the Meliadine Camp to support the advanced exploration program. Amendment No. 5 was granted by the NWB on August 20, 2012, for an increase in volume of water from ( $25$  to  $45 \text{ m}^3 \text{ per day}$ ) for domestic purposes, and a decrease in volume of water from ( $265$  to  $245 \text{ m}^3 \text{ per day}$ ) for drilling purposes.

### **III. RENEWAL APPLICATION**

On March 4, 2014, the NWB received an application for amendment (Amendment No. 6) to the Licence to allow for the construction and operation of a landfarm in the old fuel bladder containment area. The following documents were included within the application:

- Cover Letter for Amendment 6 and Table of contents;
- Cover Letter to KIA on Landfarm on Commercial Lease;
- Cover Letter for Cheque for Landfarm application by Canada Post;
- Application for Water Licence Amendment dated February 28, 2014 with

- a. NPC Conformity Report: dated May 11, 2007;
- b. NIRB Screening Decision Report No.: 07EN044 dated July 3, 2007; and
- c. English and Inuktitut Summary.
- Supplementary Questionnaire for Advanced Exploration with
  - Appendix A
    - Figure 1 Land Tenure without wolf, dated March 2010;
    - Figure 2 Water Sampling Map;
    - Figure 3 Meliadine Main Components;
    - Figure 4 Water-bodies Oct. 2010; and
    - Figure 5 Phase 1 All Weather Access Road, dated September 2011.
  - Appendix B: Public Engagement and Consultation with Communities, Inuit Organizations and Authorizing Agencies 2010-2013
- Landfarm Management Plan, dated January 2014.

On April 11, 2014, after being advised by the Board, AEM submitted a renewal Licence application to be processed together with the previously submitted amendment application. Associated documents were submitted on April 23, 2014. The application consisted of the following documentation:

- Application for Water Licence Renewal dated April 11, 2014;
- Map Area;
- Non-Technical Summary English and Inuktitut;
- Figure 1 Land Tenure without Wolf, dated March 2010;
- Figure 2 Water Sampling Map;
- Figure 3 Meliadine Main Components;
- Figure 4 Water-bodies Oct. 2010;
- Figure 5 Phase 1 All Weather Access Road Sept. 2011;
- Landfill Design and Management Plan dated March 2012;
- Interim Reclamation and Closure Plan dated 2013;
- Spill Contingency Plan dated February 2014;
- Used Water Management Plan dated May 2013;
- Waste Management Plan dated November 2013;
- Water Management Plan dated February 2013; and
- Wildlife Protection and Response Plan dated July 2013.

Following an internal preliminary technical review, a notice of the Renewal/Amendment Application (Application) was posted and the application information was made available for general comment from April 29, 2014 to May 29, 2014. On or by May 29, 2014, submissions were received from Aboriginal Affairs and Northern Development Canada (AANDC), and Environment Canada (EC). Based upon the results of the detailed assessment, including consideration of any potential accidents, malfunctions, or impacts to water that the overall project might have in the area, the Board approved the application and has issued Licence 2BB-MEL1424.



#### IV. GENERAL CONSIDERATIONS

The following section outlines the issues identified by the NWB and raised by interested parties and provides the background on the terms and conditions imposed within the body of the Licence.

##### Security

As a requirement of Part B, Item 2 of Licence 2BB-MEL0914, Comaplex provided to Indian and Northern Affairs Canada (INAC or AANDC at present) with a letter of credit for financial security in the amount of Six Hundred and Thirty Nine Thousand Dollars (\$639,000) dated May 27, 2010. On May 31, 2010, AANDC informed the Board by email that AANDC is satisfied that Comaplex has provided sufficient evidence of security being furnished in accordance with Part B, Item 2 of Licence.

On June 8, 2010, the NWB received an updated estimate of restoration liability requiring the NWB to consider the updated estimate and impose updated security of \$337,360 for the Meliadine West Gold Project under Part B, Item 3 of Licence 2BB-MEL0914<sup>1</sup>. The revised security estimate provided by Comaplex was based on the remediation of fuel contaminated soil and the results of static testing of the waste rock and ore. Based on the static testing results, Comaplex concluded that there was no need to move any waste rock underground, stating that it does not pose an Acid Rock Drainage (ARD) risk. However, the ore stored on surface does require isolation from the environment and Comaplex proposed the use of a disposal approach using the box-cut in the portal entrance area.

The request was distributed for comments, and in its submission of August 13, 2010, AANDC found substantial disagreement with the reasons presented in the request to reduce security and submitted its own estimate, concluding that security for the project should be \$1,333,595 (water related \$999,772)<sup>2</sup>. The use of the box-cut approach to dispose of ore was the major source of disagreement between the estimates.

In response to AANDC's comments on security, Comaplex submitted additional information to the NWB on September 7, 2010<sup>3</sup> and held that the box-cut approach was viable stating that "*AEM still maintains that the 2010 security for the Meliadine Gold Project should be \$337,360 as set out in Comaplex June 8<sup>th</sup> 2010 letter to the Nunavut Water Board*". The additional information on security was distributed to parties by the NWB for review and comment along with the amendment request to expand the underground exploration program on September 20, 2010.

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1 Letter from John Witteman, Comaplex Minerals Corp. to Phyllis Beaulieu, NWB: Re: Water Licence 2BB-MEL0914: Recalculation of Restoration Liability dated June 8, 2010.

2 Letter from Tanya Trenholm, Water Resources Division to Phyllis Beaulieu, NWB: Re: 2BB-MEL0914 – Meliadine West Exploration and Bulk Sampling Project – Water Security Recalculation Estimate dated August 13, 2010.

3 Letter from John Witteman, AEM to Phyllis Beaulieu, NWB: Re: Water License 2BB-MEL0914: Response to INAC's Recalculation of Restoration Liability: Meliadine Gold Project: Agnico-Eagle Mines Limited dated September 7, 2010.

On October 22, 2010, the Board was advised that “AANDC maintains its original request that the NWB consider the provided estimate (total liability 1,333,595; water related \$999,772) and impose an appropriate security for this project<sup>4</sup>”.

On October 27, 2010, AEM replied to AANDC’s letter stating that “the difference between the two calculations [AEM’s and AANDC’s] on major items to be changed is \$555,698. While AANDC sees the 2013 security deposit being \$1,333,595, AEM feels a more reasonable bonding would be \$777,897 based on the above table<sup>5</sup>. As a result, AEM still maintains that the 2010 security for the Meliadine Gold Project should be \$337,360 as set out in Complex’s June 8<sup>th</sup> 2010 letter to the Nunavut Water Board, not \$639,000 as suggested by AANDC”.

On January 6, 2011, as a part of review of Amendment 3 to Licence 2BB-MEL0914, the NWB asked parties to discuss and resolve security issues. On July 8, 2011, AANDC advised the Board that “the previous AANDC estimate for this property was completed in July 2010 and totaled \$1,333,595<sup>6</sup>”. AANDC stated that “presently, the estimated cost for reclaiming the site, including the all-weather road, but not considering the winter road is approximately \$824,483. The estimated cost for reclaiming the site, including the all-weather road, and the winter road is approximately \$905,231”. AANDC confirmed that its estimate was for the project through to 2013.

To clarify its estimate, AEM pointed the following from its September 7, 2010 submission: *The difference between the two calculations [AEM’s and AANDC’s] on major items to be changed is \$555,698. While AANDC sees the 2013 security deposit being \$1,333,595, AEM feels a more reasonable bonding would be \$777,897 based on the above.*

With the approval of Amendment 3 to the previous Licence, the Board indicated that “the NWB will, in accordance with Part B Item 4, revisit the amount of security prior to the commencement of the underground extension program”.

Within the Licence renewal Application the Licensee has requested that the reclamation security remain the same. The Section 12 Cost of Implementation of the Interim Reclamation and Closure Plan (Plan) included within the Application states that “the security has remained unchanged since 2007, and on or about July 8, 2011, AEM and AANDC agreed that a security of \$824,483 was appropriate for the level of activity, which included the extension of the ramp and a ventilation shaft”. In preparation for the commencement of the underground extension program, AEM recalculated the security using the Reclamation Cost Estimating Model - Version 6.1 (RECLAIM Model). The Plan includes the following estimates of reclamation liability for different components of the Project:

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4 Letter from Tanya Trenholm, Water Resources Division to Phyllis Beaulieu, NWB: Re: 2BB-MEL0914 – Recalculation of Security – INAC Response to Agnico-Eagle Mines Ltd. September 7, 2010 Letter dated October 22, 2010

5 Letter from John Witteman, AEM to Phyllis Beaulieu, NWB: Re: Water License 2BB-MEL0914: Final Response to INAC’s Letter of October 22<sup>nd</sup>: Recalculation of Restoration Liability: Meliadine Gold Project: Agnico-Eagle Mines Limited dated October 27, 2010.

6 Letter from Tanya Trenholm, Water Resources Division to Phyllis Beaulieu, NWB: Re: 2BB-MEL0914 – Meliadine West Gold Project – Agnico-Eagles Mines Limited – Reclamation Liability Estimate, Including All-Weather Road dated July 8, 2011.

Project Component	Total Cost	Water Liability
Meliadine Site (2BB-MEL0914)	\$1,489,082	\$965,051
Meliadine East Camp (2BE-MEP0813)	\$34,126	\$13,651
Meliadine All-Weather Access Road (2BW-MEL1215)	\$475,683	\$342,206
<b>TOTAL</b>	<b>\$1,998,891</b>	<b>\$1,320,908</b>

In its comments regarding this Application, AANDC expressed the need to work cooperatively with Kivalliq Inuit Association (KivIA) to address reclamation security for this undertaking, and recommended that *“the total amount be evaluated through a workshop with all interested parties during year one of the renewed Licence”*.

The NWB has therefore required that the reclamation security amount furnished to the AANDC Minister remain unchanged at this time. In addition, the Board is encouraging all parties concerned to continue to work diligently toward a future evaluation of amount, and reminds AEM that Part B, Items 3 and 4 of the Licence permits the Licensee to request, with supporting evidence to justify the request, that the Board review the amount of the security requirement.

### **Term of Licence**

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* s. 45, the NWB may issue a Licence for a term not exceeding twenty-five years. In determining an appropriate term of a Water Licence, the Board considers a number of factors including, but not limited to; the results of AANDC site inspections and the corresponding compliance record of the Applicant, as well as intervener comments provided during the application review process.

In review of the comments received on the application, the NWB has noted that there were no concerns expressed with respect to the requested Licence term of ten (10) years. In review of the information available during the renewal process, the NWB concurs with the Applicant that a Licence term of approximately ten (10) years could be appropriate.

The Licence duration will allow the Licensee to properly carry out the terms and conditions of the Licence and will ensure that sufficient time is given to permit the Licensee to develop, submit and implement the plans required under the Licence to the satisfaction of the NWB and carry out the proposed activities during this period.

### **Annual Reporting**

The NWB has imposed on the Licensee the requirement to produce an Annual Report. These Reports are for the purpose of ensuring that the NWB has an accurate annual update of the Licensee’s activities related to water use and waste disposal during a calendar year. This information is maintained on the Public Register and is available to interested parties upon request. A *“Standardized Form for Annual Reporting”* is to be used by the Licensee and is available from the NWB file transfer protocol (FTP) site under the Public Registry link at the NWB Website.

Website Public Registry:

[\(ftp://nunavutwaterboard.org/ADMINISTRATION/Standardized%20Forms/\)](ftp://nunavutwaterboard.org/ADMINISTRATION/Standardized%20Forms/).

This form provides the basis for annual reporting and format, however individual Licensees shall need to provide information in addition to that of the standard form to address project specific reporting requirements.

## **Water Use**

Amendments No. 1 and 5 to the preceding Licence on June 28, 2010 and August 20, 2012, respectively, permitted the Licensee to use two-hundred and ninety (290) m<sup>3</sup> freshwater *per* day. The Licensee has not requested a change in total allowable water use as part of the renewal application.

No concerns were expressed by interveners in their submissions with respect to the requested freshwater amount requested by the Licensee, or to the manner in which it is obtained or used.

In review of the application, the NWB relied on the definition of “Use” provided by the *Act*<sup>7</sup>. All water taken from a source and later returned to that water body would qualify under the definition as an “indirect use of water”, used to keep the water lines from freezing during use. Although this may not reflect the actual water consumption, it is an accurate measure of water use. Also, the Licensee was not clear in its application, whether water from the flow-through system that is not consumed by the camp or drills is returned directly to the source lake, or indirectly overland. Therefore, having given due consideration to the information presented during the review, the NWB has determined that water extracted from the source water supply, for any purpose, is considered a Use of water and that the Licensee is requested to measure directly on the sources all freshwater used for all purposes including the local lakes for drillings.

As such, the monitoring station MEL-1, raw water supply intake at Meliadine Lake and MEL-2, raw water supply intake at Pump Lake shall remain active and the Licensee shall employ accurate means of measuring water from these and any other water sources including sources proximal to drill rigs.

## *Site Water Management*

As a part of the Application the Licensee submitted the Plan entitled “Meliadine Gold Project Water Management Plan Water Licence No. 2BB-MEL0914 Advanced Exploration” dated February 2014. This previously approved Plan was consolidated and updated to include Licence amendments that happened since the issuance of the previous Licence in 2009. The Board has accepted the updated Plan and as per Part C, Item 2 of the Licence requires that the Licensee implement the Plan accordingly.

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<sup>7</sup> “use”, in relation to waters, means a direct or indirect use of any kind, including, but not limited to,

- (a) Any use of water power an geothermal resources;
- (b) Any diversion or obstruction of waters;
- (c) Any alteration of the flow of waters; and
- (d) Any alteration of the bed or banks of a river, stream, lake or other body of water, whether or not the body of water is seasonal.

However it does not include navigation or any other use connected with shipping activities that are governed by the *Canada Shipping Act*.

## **Waste Disposal**

The Application included the revised Plan entitled “Meliadine Gold Project Waste Management Plan” dated November 2013 that was approved under the previous Licence. It discusses aspects of waste management at the camp including the operation of the on-site incinerator and the segregation of wastes (Hazardous waste, used Drums and Tires for recycling) designated for disposal off-site. As per Part D, Item 2 the Licensee shall be required to implement the Plan accordingly.

### *Sewage Waste*

Sewage wastes at the Meliadine advanced exploration camp were at first incinerated but this practice ended with a BIODISK rotating contactors wastewater treatment system (BIODISK) installed in 2010. This wastewater treatment system was designed to handle both black and grey water and produce effluent in compliance with NWB water license 2BB-MEL0914. Therefore the grey water is also currently being redirected to the BIODISKS instead of passing through a sump and wetland system before reaching Meliadine Lake. The document entitled “Waste Management Plan Meliadine Waste Gold Project” revised September 2009 was approved by the Board on June 28, 2010. This Plan included the relevant information on the BIODISK system, for construction engineered drawings of the upgraded sump and wetland, and sludge management/disposal plans for the sludge generated through operation of the system. The Plan identified the final point of control and compliance for the Facility and also discussed the management procedures for system malfunctions and for operation during sub-freezing temperatures, as this could have an impact on the treatment process.

The NWB included within the previous Licence effluent quality criteria for the final point of control and compliance (MEL-7) for the Sewage Treatment Facility effluent based on the generally accepted interpretation of Table 4.1 of the *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories, 1992*, and to be consistent with similar Licences with sewage treatment systems and discharges. The effluent quality criteria for the final point of control and compliance (MEL-7) are included within the renewal Licence as well.

The 2010-2011 monitoring results indicated that oil and grease, total suspended solids and Faecal Coliforms often exceeded the authorized limits. In April 2012, AEM installed the second BIODISK system and an equalization tank. In addition, a bubbler was installed to increase the oxygen level and improve treatment. As a result of these installations and optimization of operating process the effluent quality had improved except for Faecal Coliforms. To further improve the wastewater treatment performance AEM installed in January 2013 a new UV treatment after the BIODISKS with a recirculation loop to double the UV exposure of the water. An ozone system was also installed lately to eliminate Faecal Coliforms.

With the exception of December 2013, while exceeded the criteria Fecal Coliforms (reportedly due to an electric failure overflowing the equalization tank during the night affecting the flow and the effluent quality), the 2013 and 2014 monthly monitoring results have indicated that since

May 2013 the Licence requirements were respected, and the effluent quality is within the Licence criteria limits.

The document entitled “Meliadine Gold Project Used Water Management Plan” dated May 2013, included within the renewal/amendment application provide information on BIODISKS Operation and Maintenance procedures, including a UV disinfection system and a system of recirculation designed by AEM for the installation in 2013. Information on sludge disposal/management plans and the final point of control and compliance are also included within this updated Plan.

The Board has approved the Plan with the issuance of the renewal Licence under Part D, Item 1 of the Licence.

With additional treatment provided by recent installations, in addition to BIODISKS, the final water entering Meliadine Lake is expected to be of higher quality than the criteria for the final point of compliance. Annual and monthly reporting will continue to verify whether the facilities are performing to expectations.

#### *Solid Waste*

As per Amendment No. 4 to the previous Licence the Licensee was authorized, on September 10, 2012, to construct/operate/close a temporary non-hazardous solid waste disposal facility (Landfill) at the Meliadine Camp to support the advanced exploration program. “Meliadine Gold Project Landfill Design and Management Plan” dated April 2012, was approved under Amendment No. 4. On July 2, 2014, the Licensee confirmed with the Board that the Landfill is not established yet.

In its submission, AANDC recognized that the *landfill management plan is conceptual and acknowledges the Licensee’s statements that efforts will be made as part of the overall site design for water to drain into collection areas that will be monitored*. It was recommended that the Licensee provides further details on how it will manage landfill leachate and surface water drainage.

At the time of Amendment No. 4 issuance, the Licensee indicated that there will likely be no effluent discharges and leachate will more likely pond than flow. However, as with other projects involving landfill activities, the Board included effluent discharge criteria within Amendment No. 4, should discharge occur or be required, or runoff from landfill be evidenced as per the Landfill Design and Management Plan. These discharge criteria have been derived from discharge levels developed within the Government of Nunavut Guideline for Industrial Waste Discharges in Nunavut (2002), Schedule II.

The renewal Licence shall contain the same terms and conditions related to the Landfill activities and potential Monitoring under Parts D and J, respectively. The Licensee shall still be required to submit for review a Construction Summary Report within ninety (90) days of completion of Landfill construction pursuant to Part E, Item 6 of the Licence.

## *Landfarm/Contaminated Soil Storage and Treatment*

AANDC Inspection of July 8, 2013, identified that AEM was using the old fuel bladder containment area to store and remediate soils contaminated with petroleum hydrocarbons. The Inspector requested that the Licensee submit to the NWB an application with regards to contaminated soils remediation. To fulfil this requirement with the current Application, the Licensee has requested Board's authorization to establish and operate a landfarm in the old fuel bladder containment area and included the document entitled: "Meliadine Advanced Exploration Project Water Licence 2BB-MEL0914 Landfarm Management Plan" dated January 2014.

AANDC, in its submission, stated that the proposed landfarm will provide a means to remediate petroleum hydrocarbon impacted soils that are suitable for on-site treatment. The soil treatment, effluent quality limits, and operations and management practices included in the management plan are deemed reasonable.

As per Part E, Item 5 of the Licence the NWB has approved the above stated Plan with the issuance of renewal Licence. The Licensee shall be required to submit for review a Construction Summary Report within ninety (90) days of completion of Landfarm construction pursuant to Part E, Item 6 of the Licence.

### **Spill Contingency Planning**

As part of the Application, the Licensee submitted the revised version of previously approved Plan entitled "Meliadine Gold Project Spill Contingency Plan, Meliadine Camp Site, Meliadine Exploration Sites, All-Weather Road, Discovery Camp Site" prepared by AEM, Exploration Division in February 2014. The Board has approved the revised Plan under Part H, Item 1 of the Licence.

### **Abandonment and Restoration Planning**

Since the approval by the Board of the Abandonment and Restoration Plan (A&R Plan) within the renewal of the previous Licence, the Licensee updated the Plan to reflect changes to the camp, addition of the Tiriganiaq borrow pit, and a landfill, and an additional bulk sample in 2013. The revised "Meliadine Gold Project Interim Reclamation and Closure Plan Water Licences 2BE-MEP1318 and 2BB-MEL0914" dated August 2013 was included within the Application. The revised Plan has been approved by the Board under Part I, Item of the Licence.

The Board notes AANDC's comments with respect to the A&R Plan stating that the *proposed placement of ore in the box cut and subsequent encapsulation with suitable fill material should prevent the development of acid rock drainage conditions. Prior to carrying out such an activity the Licensee should provide engineer design drawings along with a monitoring program that includes thermal monitoring to assess freeze back conditions.*

The Board notes that the proposed Landfarm restoration is not included within the revised A&R Plan. The Licensee shall be required to submit an updated Plan for the Board review with the 2014 Annual Report to reflect at minimum inclusion of Landfarm information, associated update on the Cost of Implementation and AANDC comments expressed during the Application review.

## **Monitoring**

To ensure consistency with other advanced exploration and bulk sampling projects licensed in Nunavut, the Board requires that the Licensee establish, implement and report on the Monitoring Program outlined in Part J of the Licence.

With the inclusion of Landfarming, as approved activities under the renewal Licence, the Monitoring Program Stations list has been amended to include Station MEL-6 Effluent from the Landfarm Treatment Facility prior to release instead of previous MEL-6 Point of discharge for the contaminated soil storage.

The Licensee is also advised that the following Monitoring Program Stations are now removed from the Monitoring Program as the grey-water is being treated by a BIODISK Wastewater Treatment System:

- MEL-3: Immediately downstream of old grey water sump prior to effluent entering wetland area, when flow is observed;
- MEL-3a: Immediately downstream of upgraded sump prior to the effluent entering upgraded wetland area, when flow is observed; and
- MEL-4: At a point immediately upstream of the discharge from the wetland area / upgraded wetland area to Meliadine Lake.

The “Quality Assurance/Quality Control Plan for the Meliadine Gold Project” (QA/QC Plan) dated October 2009 was prepared in accordance with the requirements highlighted in Part J, Item 11 of the previous Licence 2BB-MEL0914. This QA/QC Plan is specific to the Meliadine Gold Project and presents basic protocols for field sampling, field analysis, sample preservation, sample shipping/sample control transport and other characteristics of a successful and repeatable mandated monitoring program, and is accompanied by an approval letter from an accredited laboratory responsible for the analytical requirements of the Licence. Under Part J, Item 12 of renewal Licence the Licensee shall be required to annually review the QA/QC Plan and modify it as necessary. Revised plans shall be submitted to the Board with an approval letter from an accredited laboratory.





## NUNAVUT WATER BOARD WATER LICENCE RENEWAL

Licence No. 2BB-MEL1424

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

AGNICO-EAGLE MINES LIMITED.

(Licensee)

C.P. 87, 765 CH DE LA MINE GOLEX  
VAL-D'OR QUEBEC, J9P 4N9

(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: 2BB-MEL1424 TYPE "B"

Water Management Area: WILSON WATERSHED - 13

Location: MELIADINE WEST GOLD PROJECT  
KIVALLIQ REGION, NUNAVUT

Classification: MINING UNDERTAKING

Purpose: DIRECT WATER USE AND DEPOSIT OF WASTE

Quantity of Water use not  
to Exceed: TWO HUNDRED NINETY(290) CUBIC METRES PER DAY

Date of Licence Issuance: JULY 22, 2014

Expiry of Licence: JULY 21, 2024

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

**Lottie Toomasie,  
Nunavut Water Board  
Vice- Chair**

## **PART A: SCOPE, DEFINITIONS AND ENFORCEMENT**

### **1. Scope**

This Licence allows for the use of water and the disposal of waste for a Mining undertaking classified as per Schedule 1 of the *Regulations* at the Meliadine West Gold Project, located approximately 25 km Northwest of Rankin Inlet within the Kivalliq Region, Nunavut (generally at latitude 63° 01' 43''N and longitude 92° 10' 12''W). Activities include camp operation, fuel storage, land-farming, mineral exploration including: prospecting, geological mapping, geophysical surveys, diamond drilling, baseline data collection, and trenching.

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing *Regulations* are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

### **2. Definitions**

“**Act**” means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Addendum**” means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report.

“**Amendment**” means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

“**Appurtenant Undertaking**” means an undertaking in relation to which a use of water or a deposit of waste is permitted by a Licence issued by the Board;

“**Board**” means the Nunavut Water Board established under the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

**“Bulk Fuel Storage Facility”** means the fuel storage facility as described in the “Meliadine Gold Project Spill Contingency Plan February 2014” submitted on April 23, 2014;

**“Effluent”** means treated or untreated liquid waste material that is discharged into the environment from a structure such as a settling pond, landfarm or a treatment plant;

**“Engineer”** means a professional engineer registered to practice in Nunavut in accordance with the *Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2* and the *Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12*;

**“Greywater”** means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

**“Hazardous Waste”** means waste classified as “hazardous” by Nunavut Territorial or Federal legislation, or as “dangerous goods” under the *Transportation of Dangerous Goods Act*;

**“High Water Mark”** means the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities);

**“ICP Scan”** means the laboratory method for determining trace metals in water through Emission Spectroscopy using inductively coupled plasma (including from approximately 22 to 32 elements, depending on the laboratory performing the analysis);

**“Inspector”** means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

**“Landfarm Treatment or Contaminated Soils Treatment Facility”** means the Landfarm facility as per drawing No. SB, Pr. No. 3.393 and described in “Meliadine Advanced Exploration Project Water Licence 2BB-MEL0914 Landfarm Management Plan” dated January 2014;

**“Licensee”** means the holder of this Licence;

**“Modification”** means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

**“Nunavut Land Claims Agreement (NLCA)”** means the “*Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*”, including its preamble and schedules, and any amendments to that agreement made pursuant to it;

**“Non-Hazardous Waste Landfill”** means the facility as described in the report entitled “Meliadine Gold Project Landfill Design and Management Plan” dated April 2012;

**“Regulations”** means the *Nunavut Waters Regulations* sor2013/669 18th April, 2013;

**“Sewage”** means all toilet wastes and greywater;

**“Sludge”** means accumulated and concentrated solids removed from Sewage Disposal Facility;

**“Spill Contingency Plan”** means the Plan entitled “Meliadine Gold Project, Spill Contingency Plan, Agnico-Eagle Mines Limited.” revised February 2014, developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence;

**“Sump”** means an excavation in impermeable soil for the purpose of catching or storing water or waste;

**“Toilet Wastes”** means all human excreta and associated products, but does not include greywater;

**“Treatment Objective”** means the treatment objective for the Land Treatment Unit which is based on the Canadian Council of Ministers of the Environment (CCME), 2001 *Canada – Wide Standard for Petroleum Hydrocarbon in Soil*, revised January 2008; and as determined by the Government of Nunavut, Environmental Protection Service based on the 2009 *Environmental Guidelines for Contaminated Site Remediation*; See Table No. 1;

**“Trench Water Containment”** means the lined sump or sumps, poly tank or other means of containment for water that has collected within the blasted and excavated trench(s) and subsequently been removed for disposal upon confirmation of water quality;

**“Waste”** means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means;

**“Wastewater Treatment Facility”** means the BIODISKS rotating biological contactors wastewater treatment system as described in the “Meliadine Gold Project Used Water Management Plan” dated May 2013;

**“Water” or “Waters”** means waters as defined in section 4 of the *Act*.

### **3. Enforcement**

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

### **PART B: GENERAL CONDITIONS**

1. The water use fees, payable to the Receiver General for Canada, shall be sent to the Board annually for the right to the use of water in accordance with Section 9 of the *Regulations*.
2. The Licensee shall maintain security with the Minister in the form in accordance with the Regulations, or in the form that is satisfactory to the Minister in the amount of Six Hundred and Thirty Nine Thousand Dollars (\$639,000).
3. The Licensee shall furnish and maintain such further or other amounts of security as may be required by the Board based on annual estimates of current Meliadine West Gold project restoration liability using the current version of RECLAIM, its equivalent or other similar method approved by the Board, in accordance with principles of AANDC's "Mine Site Reclamation Policy for Nunavut" (2002).
4. The Licensee may submit to the Board, for approval, a written request for a reduction to the amount of security. The submission shall include supporting evidence to justify the request.
5. The security deposit shall be maintained until such time as the Minister of AANDC and Kivalliq Inuit Association are satisfied that the Licensee has complied with all provisions of the approved Abandonment and Restoration Plan. This clause shall survive the expiry of this Licence.
6. The Licensee shall file an Annual Report on the Appurtenant Undertaking with the Board no later than March 31<sup>st</sup> of the year following the calendar year being reported, containing the following information:
  - a. The daily, monthly and annual quantities in cubic metres of all freshwater obtained from Meliadine Lake at Monitoring Station MEL-1 and MEL-2;
  - b. The daily, monthly and annual quantities, in cubic metres, of Mine water pumped from the underground;

- c. An estimate of the current volume of waste rock and ore stockpiled on site;
  - d. Tabular summary of all data generated under the Monitoring Program, Part J;
  - e. A summary of modification and/or major maintenance work carried out on the Water Supply Facilities, Bulk Fuel Storage Facility, Bermed Fuel Containment Facilities, and Wastewater Treatment Facility, including all associated structures, and an outline of any work anticipated for the next year;
  - f. A list of unauthorized discharges and a summary of follow-up actions taken;
  - g. Any revisions to the Spill Contingency Plan, Site Water Management Plan, Used Water Management Plan, Waste Management Plan, Waste Rock and Ore Storage Plan, Landfill and Landfarm Management Plans, Abandonment and Restoration Plan, as required by Part B, Item 12, submitted in the form of an Addendum;
  - h. An updated estimate of the current Meliadine West Gold Project restoration and liability, as required under Part B, Item 3, based upon the results of the restoration research, project development monitoring, and any modifications to the site plan;
  - i. A summary of drilling/trenching activities and progressive reclamation of drill/trench sites;
  - j. Report all artesian flow occurrences as required under Part F, Item 6;
  - k. A description of all progressive and/or final reclamation work undertaken, including photographic records of site conditions before, during and after completion of operations;
  - l. A summary of any specific studies or reports requested by the Board, and a brief description of any future studies planned or proposed;
  - m. A summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted; and
  - n. Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.
7. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
  8. The Licensee shall install flow meters or other such devices, or implement suitable methods required for the measuring of water volumes as required under Part J, Item 1.
  9. The Licensee shall post signs in the appropriate areas to inform the on-site personnel and public of the location of the Water Supply Facility and the Wastewater Treatment Facility. All signs shall be in English and Inuktitut.
  10. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.

11. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
12. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plans accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.
13. Every Plan to be carried out pursuant to the terms and conditions of this Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
14. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:
  - (a) **Manager of Licensing:**  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU X0B 1J0  
Telephone: (867) 360-6338  
Fax: (867) 360-6369  
Email: [licensing@nwb-oen.ca](mailto:licensing@nwb-oen.ca)
  - (b) **Inspector Contact:**  
Manager of Field Operations, AANDC  
Nunavut District, Nunavut Region  
P.O. Box 100  
Iqaluit, NU X0A 0H0  
Telephone: (867) 975-4295  
Fax: (867) 979-6445
15. The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut (and/or Inuinnaqtun).
16. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the NWB is received and acknowledged by the Manager of Licensing.
17. This Licence is assignable as provided for in Section 44 of the *Act*.



**PART C: CONDITIONS APPLYING TO WATER USE**

1. The Licensee shall obtain all water for camp or domestic uses, up to a maximum of forty-five (45) m<sup>3</sup> *per day*, from the Meliadine Lake at Monitoring Program Station MEL-1. Underground workings and associated infrastructure, Waste Rock storage Pad and Drill water shall be obtained from Meliadine, Pump, A8 Lakes and small ponds proximal to the drilling targets as outlined in the Application and measured at Monitoring Program Station Mel-2, and shall not exceed two hundred and forty-five (245) m<sup>3</sup> *per day*. Total water use for all purposes shall not exceed two hundred and ninety (290) m<sup>3</sup> per day.
2. The Licensee shall implement the Plan entitled “Meliadine Gold Project Water Management Plan Water Licence No. 2BB-MEL0914 Advanced Exploration” dated February 2014 that was originally approved by the Board. The Licensee is required to update the plan annually and submit any changes, in the form of an addendum complete with a record of revision, to the Board for review by March 31<sup>st</sup> of the year following the update.
3. Streams cannot be used as a water source unless authorized and approved by the Board in writing.
4. If the Licensee requires water in sufficient volume that the source water body may be drawn down, the Licensee shall, at least thirty (30) days prior to commencement of use of water, submit to the Board for approval in writing, the following: volume required, hydrological overview of the water body, details of impacts, and proposed mitigation measures.
5. The Licensee shall equip all water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw water at a rate such that fish do not become impinged on the screen.
6. The Licensee shall not remove any material from below the ordinary High Water Mark of any water body unless authorized.
7. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
8. Sediment and erosion control measures shall be implemented prior to and maintained during the undertaking to prevent entry of sediment into water.

**PART D: CONDITIONS APPLYING TO WASTE DISPOSAL**

1. The Licensee shall implement the Plan entitled “Meliadine Gold Project Used Water Management Plan” revised May 2013 that was originally approved by the Board. The Licensee is required to update the plan annually and submit any changes, in the form of



an addendum complete with a record of revision, to the Board for review by March 31<sup>st</sup> of the year following the update.

2. The Licensee shall implement the Plan entitled “Meliadine Gold Project Waste Management Plan” revised November 2013, submitted as additional information with the Application and originally approved by the Board. The Licensee is required to update the plan annually and submit any changes, in the form of an addendum complete with a record of revision, to the Board for review by March 31<sup>st</sup> of the year following the update.
3. The Licensee shall locate areas designated for waste disposal at a minimum distance of thirty one (31) metres from the ordinary High Water Mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise approved by the Board in writing.
4. The Licensee is authorized to dispose of and contain all non-hazardous, solid Wastes at the Meliadine Non-Hazardous Waste Landfill. The Licensee shall limit this disposal to those materials listed as acceptable for disposal, outlined in the “Meliadine Gold Project Landfill Design and Management Plan”, dated April 2012.
5. The Licensee is authorized to dispose of all acceptable food waste, paper waste and untreated wood products in an incinerator.
6. The Licensee shall not open burn plastics, wood treated with preservatives, electric wire, Styrofoam, asbestos or painted wood to prevent the deposition of waste materials of incomplete combustion and/or leachate from contaminated ash residual, from impacting any surrounding waters, unless otherwise approved by the Board in writing.
7. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving wastes from the Meliadine West Gold Project prior to any backhauling and disposal of wastes to those communities.
8. The Licensee shall backhaul and dispose of all hazardous wastes, waste oil and non-combustible waste generated through the course of the operation at a licensed waste disposal site.
9. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.
10. The Licensee shall dispose of all Sewage generated at the Camp to the Waste Water Treatment Facility, or as otherwise approved by the Board.
11. All Wastewater effluent discharged from the Wastewater Treatment Facility at Monitoring Program Station MEL-7 shall not exceed the following Effluent quality limits:

Parameter	Maximum Concentration of any Grab Sample
pH	6.0 to 9.5
Biochemical Oxygen Demand (BOD5)	80 mg/L
Total Suspended Solids (TSS)	100 mg/L
Faecal Coliforms	1000 CFU/100mL
Oil and Grease	5 mg/L & No visible sheen

12. The Licensee shall direct all Water accumulated in blasted or excavated trenches to a Trench Water Containment to allow for sampling prior to release. Water collected in hand-dug trenches shall be directed to a natural depression sump, as required by Part D, Item 1.
13. All Effluent discharged from the Trench Water Containment shall be carried out in accordance with Part D, Item 1, directed to a natural depression where direct flow into a water body is not possible and no additional impacts are created. All Effluent discharges shall not exceed the following Effluent Quality Limits:

Parameter	Maximum Concentration of any Grab Sample (mg/L)
Total Arsenic	0.5
Total Copper	0.30
Total Lead	0.20
Total Nickel	0.50
Total Zinc	0.50
Total Suspended Solids	25
Oil and Grease	No visible sheen
pH	6.0-9.5

14. All Effluent discharged from the Non-Hazardous Waste Landfill Monitoring Program Station MEL-8 shall not exceed the following Effluent quality limits:

Parameter	Maximum Concentration of any Grab Sample (mg/L)
Total Arsenic	1.0
Total Barium	1.0
Total Cadmium	0.1
Total Chromium	0.1
Total Copper	1.0
Total Lead	0.05
Total Mercury	0.0006
Total Nickel	1.0
Total Silver	0.1

Total Zinc	0.5
Total Suspended Solids	15.0
Oil and Grease	15.0
pH	6.0-9.5

15. All Effluent discharged from Bermed Fuel Containment Facilities at Monitoring Program Station MEL-5, and from Landfarm Treatment Facility at Monitoring Program Station MEL-6 shall not exceed the following Effluent quality limits:

Parameter	<del>Maximum Concentration of any Grab Sample (ug/L)</del> Maximum Allowable Grab Sample Concentration (ug/L)
Benzene	370
Ethylbenzene	2
Toluene	90
Lead	1
Oil and Grease ( <del>mg/L</del> )	15,000 and no visible seen
Phenols	20

16. The Licensee shall provide at least ten (10) days notification to an Inspector, prior to initiating the release of effluent from any facilities listed in this Part. The notice shall include water quality results, an estimate of volume and the proposed receiving location.
17. If effluent does not meet the effluent quality limits of Part D, Item 15 above, it shall be considered hazardous waste and be disposed off-site to an approved, licensed facility.
18. The discharge location for all treated effluent described in Part D Item 15 shall be located at a minimum of thirty one (31) metres from the ordinary High Water Mark of any water body and where direct or indirect flow into a water body is not possible and no additional impacts are created.
19. The Licensee shall treat petroleum hydrocarbon contaminated (PHC) (Type B) soil in the Landfarm Facility, to the Treatment Objective and, prior to the removal of any treated soil for future use, confirm with the Government of Nunavut, Environmental Protection Service that the soils have been treated to meet the required Treatment Objective, in a manner in accordance with the “Meliadine Advanced Exploration Project Water Licence 2BB-MEL0914 Landfarm Management Plan” dated January 2014, and any subsequent revisions to the Plan approved by the Board in writing.
20. The Licensee shall direct all treated soil that meets the Treatment Objective detailed in Table No. 1 to Industrial land.

**PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS**

1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including the immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
2. The Licensee shall implement the Plan entitled “Meliadine Gold Project Water Management Plan” revised February 2013 that was originally approved by the Board.
3. The Licensee shall notify the Inspector and the NWB within 48 hours of underground exploration activity extending beyond the lower permafrost boundary.
4. The Licensee shall implement the Plan entitled “Meliadine Gold Project Landfill Design and Management Plan” dated March 2012, submitted as additional information with the Application and originally approved by the Board. The Licensee is required to update the plan annually and submit any changes, in the form of an addendum complete with a record of revision, to the Board for review by March 31<sup>st</sup> of the year following the update.
5. The Board has approved the Plan entitled “Meliadine Advanced Exploration Project Water Licence 2BB-MEL0914 Landfarm Management Plan” submitted with the application as additional information and dated January 2014. The Licensee is required to update the plan annually and submit any changes, in the form of an addendum complete with a record of revision, to the Board for review by March 31<sup>st</sup> of the year following the update.
6. The Licensee shall, within ninety (90) days of completion of Landfill and Landfarm construction, submit to the Board, a Construction Summary Report(s) along with stamped as-built plans and drawings, providing explanation to reflect any deviations from construction drawings taking into account construction and field decisions and how they may affect the performance of the Landfill and Landfarm.
7. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.
8. The Licensee shall construct all winter lake and stream crossings, including ice bridges, entirely of water, ice or snow. The Licensee shall minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
9. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed of at a distance of at least thirty one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter Water.

10. The Licensee shall not do anything that will cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
11. The Licensee shall implement sediment and erosion control measures prior to and maintain such measures during construction and operation to prevent entry of sediment into water.
12. The Licensee shall undertake appropriate corrective measures to mitigate impacts on surface drainage resulting from the Licensee's operations.
13. The Licensee shall limit any in-stream activity to low water periods. In-stream activity is prohibited during fish migration.
14. The Licensee shall locate stream crossings to minimize approach grades. Approaches shall be stabilized during construction and upon completion of the project, to control runoff, erosion and subsequent siltation to any water body.
15. Machinery is not permitted to travel up the stream bed, and fording of any water body is to be kept to a minimum and limited to one area and a one-time event. Equipment used should be well cleaned and free of oil and grease and maintained free of fluid leaks.
16. The Licensee shall ensure that all fill material used during construction is from an approved source and shall be free of contaminants.
17. To minimize impacts on surface drainage, the Licensee shall prepare all sites in such a manner as to prevent rutting of the ground surface.
18. Equipment storage holding areas should be located on gravel, sand or other durable land, a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any water body in order to minimize impacts on surface drainage and water quality.
19. The Licensee shall designate an area for the deposition of excavated and stockpiled materials that is at least thirty-one (31) metres above the ordinary High Water Mark of any water body.
20. The Licensee shall not mobilize heavy equipment or vehicles in the course of this undertaking unless the ground surface is capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall be suspended if rutting occurs.

**PART F: CONDITIONS APPLYING TO DRILLING AND TRENCHING OPERATIONS**

1. The Licensee shall not conduct any land based drilling and trenching within thirty one (31) metres of the ordinary High Water Mark of any water body, unless otherwise approved by the Board in writing.

2. The Licensee shall dispose of all drill waste, including water, chips, muds and salts (CaCl<sub>2</sub>) in any quantity or concentration, from land-based and on-ice drilling, in a properly constructed sump or an appropriate natural depression located a distance of at least thirty one (31) metres from the ordinary High Water Mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created.
3. If artesian flow is encountered, drill holes shall be immediately sealed and permanently capped to prevent induced contamination of groundwater or salinization of surface waters. The Licensee shall report all artesian flow occurrences within the Annual Report, including the location (GPS coordinates) and dates.
4. Drilling additives or mud shall not be used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or are demonstrated to be non-toxic.
5. For “on-ice” drilling where drill additives are not being used, return water released must be nontoxic, and not result in an increase in total suspended solids in the immediate receiving waters, above the Canadian Council of Ministers for the Environment *Guidelines for the Protection of Freshwater Aquatic Life* (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).
6. The Licensee shall establish water quality conditions prior to and upon completion of any drilling program through lake ice.
7. The Licensee shall, during trenching activities utilizing blasting, provide mitigation measures to prevent the transport of blast rock, explosive residues, sediment and other materials from entering water as required by Part C, Items 7, 8 and Part E, Item 7.
8. The Licensee shall implement sediment and erosion control measures by employing erosion prevention measures (e.g., berms or silt fence) in the trenching area during the project operation.
9. The Licensee shall stockpile all overburden/topsoil generated during trenching using proper erosion prevention measures. Upon completion of operation, the Licensee shall back fill, reclaim/re-contour and re-vegetate all disturbed areas.
10. The Licensee shall provide to the Board, for review, at least sixty (60) days prior to the beginning of trenching operations, a proposed Trenching Plan which shall include the following:
  - a. Size and location of trenches including GPS coordinates;
  - b. Approximate dimensions (length, width and depth) of each trench;
  - c. Proposed mitigation measures for the prevention of the transport of sediments, blasting residues, fly rock and other materials, from the trench area to nearby water bodies;

- d. Projected volume and quality of water discharged from each trench with potential treatment required; and
- e. Proposed monitoring program to be carried out on trench waste water prior to discharge.

**PART G: CONDITIONS APPLYING TO MODIFICATIONS**

1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
  - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
  - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
  - c. such Modifications are consistent with the NIRB Screening Decision;
  - d. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
  - e. the Board has not rejected the proposed Modifications.
2. Modifications for which all of the conditions referred to in Part G, Item 1 have not been met can be carried out only with written approval from the Board.
3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

**PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING**

1. The Licensee shall implement the Plan entitled “Meliadine Gold Project Spill Contingency Plan, Meliadine Camp Site, Meliadine Exploration Sites, All-Weather Road, Discovery Camp Site”, dated February 2014, that has been approved by the Board with the issuance of the Licence.
2. The Licensee shall prevent any chemicals, petroleum products or wastes associated with the project from entering Water. All sumps and fuel caches shall be located at a distance of at least thirty one (31) metres from the ordinary High Water Mark of any adjacent water body and inspected on a regular basis. An exception to this condition is provided for in Part H, Item 4.
3. The Licensee shall conduct any equipment maintenance and servicing in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and to contain potential spills.

4. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
  - a. Employ the approved Spill Contingency Plan;
  - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
  - c. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

**PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OR TEMPORARY CLOSING**

1. The Licensee shall submit for Board review within the 2014 Annual Report an updated Abandonment and Restoration Plan prepared in accordance with applicable sections of the "Guidelines for Abandonment and Restoration Planning for Mines in the Northwest Territories (1990)" that has been approved by the Board with the issuance of the Licence. Updates are to reflect at minimum additional Landfarm information, associated update on the Cost of Implementation and AANDC comments expressed during the Application review.
2. The Licensee shall complete all restoration work prior to the expiry of this Licence.
3. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
4. The Licensee shall backfill and restore all sumps to the pre-existing natural contours of the land.
5. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, buildings and contents, docks, water pumps and lines, material and equipment prior to the expiry of this Licence.
6. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.
7. The Licensee shall remove any culverts and restore the drainage to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
8. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.



9. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut's *Environmental Guideline for Site Remediation*, 2010. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.
10. The Licensee shall restore all drill holes and disturbed areas to natural conditions immediately upon completion of the drilling or trenching. The restoration of drill holes must include the removal of any drill casing materials and, if having encountered artesian flow, the capping of holes with a permanent seal.
11. The Licensee may store drill cores produced by the appurtenant undertaking in an appropriate manner and location at least thirty one (31) metres above the ordinary High Water Mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created.
12. The Licensee shall contour and stabilize all disturbed areas to a pre-disturbed state upon completion of work.

**PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM**

1. The Licensee shall maintain Monitoring Stations at the following locations:

Monitoring Program Station Number	Description	Status
MEL-1	Raw water supply intake at Meliadine Lake	Active (Volume cubic metres)
MEL-2	Raw water supply intake at Pump, A8 or other Lakes	Active (Volume cubic metres)
MEL-5	Point of discharge for the Bermed Fuel Containment Facilities	Active
MEL-6	Effluent from the Landfarm Treatment Facility prior to release	New
MEL-7	Final Effluent Discharge from the BIODISK treatment system	Active
MEL-8	Point of discharge or runoff from the Non-Hazardous Waste Landfill	(New) Active

2. The Licensee shall measure and record, in cubic metres, the daily quantities of water utilized for camp, drilling, trenching and other purposes.

3. The Licensee shall measure and record the volume of all soil from all locations entering the Landfarm Treatment Facility.
4. The Licensee shall assess and record the concentration of F1 – F4 fractions in petroleum hydrocarbon contaminated soil, according to the CCME *Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil* that is entering the Land Treatment Unit from all sources and excavations.
5. The Licensee shall provide the GPS co-ordinates (in decimal degrees) of all locations where sources of water are utilized for all purposes.
6. The Licensee shall provide the GPS co-ordinates (in decimal degrees) of all locations where wastes associated with camp operations and exploration activities are deposited.
7. The Licensee shall sample at Monitoring Program Station MEL-7, monthly during Wastewater effluent discharge. Samples shall be analyzed for the parameters listed under Part D Item 11.
8. The Licensee shall, prior to the release of effluent from the Bermed Fuel Containment Facilities at Monitoring Program Station MEL-5 and the Landfarm Treatment Facility at Monitoring Program Station MEL-6 for the purpose of demonstrating compliance, sample for the parameters listed under Part D Item 15.
9. The Licensee shall obtain representative samples of the water column below any ice where required under Part F, Items 5 and 6. Monitoring shall include, at a minimum, the following:
  - Total Suspended Solids
  - pH
  - Electrical Conductivity,
  - Total Trace Metals as determined by a standard ICP Scan (to include at a minimum, the following elements: Al, Sb, Ba, Be, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Mo, Ni, Se, Sn, Sr, Tl, Ti, U, V, Zn), and
  - Trace Arsenic and Mercury
10. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board in writing.
11. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
12. The Licensee shall annually review the QA/QC) Plan approved originally by the Board and modify it as necessary. Revised plans shall be submitted to the NWB with an approval letter from an accredited lab that meets standards set in Part J Items 10 and 11.

13. A monthly Monitoring Program Summary Report shall be submitted to the Board for review within thirty (30) days following the month being reported. This summary report shall include the monitoring results of Part J, Items 1 through 9 and applicable results of the approved QA/QC plan.
14. The Licensee shall include in the Annual Report as required under Part B, Item 2, all data, monitoring results and information required by Part J.

**Table No. 1**  
**Remediation Requirements**  
**Summary of Tier 1 Remediation Criteria (mg/kg) for PHC in ‘Surface Soil’ for Industrial Land Uses**

Parameter	Criteria (mg/kg)	
	Agricultural/Wild-land	Industrial
Benzene	0.03	
Toluene	0.37	0.37
Ethylbenzene	0.082	0.082
Xylene	11	11
PHC Fraction 1	30	320
PHC Fraction 2	150	260
PHC Fraction 3	300	1700
PHC Fraction 4	2800	3300

Data from Government of Nunavut (GN) Environmental Guidelines for Contaminated Site Remediation (March, 2009).