



Water Resources Division  
Nunavut Regional Office  
Iqaluit, NU X0A 0H0

May 11, 2009

**NWB File #: 2BB-MEL0709**

**Our File #: 9545-2-2.2BB.MELA**

**CIDMS #: 325779**

Richard Dwyer  
Licensing Administrator  
Nunavut Water Board  
PO Box 119  
Gjoa Haven, NU X0A 1J0

**Re: 2BB-MEL0709 – Type ‘B’ Water Licence Renewal Application –  
Comaplex Minerals Corp. – Meliadine West Gold Project**

Please be advised that Indian and Northern Affairs Canada (INAC) has completed a review of a Type ‘B’ Water Licence Renewal application for the Meliadine West Gold Project. The application was submitted to the Nunavut Water Board (NWB) by Comaplex Minerals on April 3, 2009. Attached is a Technical Review Memorandum for your consideration in the approval of the renewal application.

This review includes comments related to the application and associated plans, the “2008 Report to the Kivalliq Inuit Association, Nunavut Impact Review Board and the Nunavut Water Board for the Meliadine West Gold Project” and an INAC Inspector’s Direction issued on August 13, 2008.

Please feel free to contact me should you have any questions or comments. I can be reached at (867) 975-4568 or by email at [Ian.Rumbolt@inac.gc.ca](mailto:Ian.Rumbolt@inac.gc.ca).

Sincerely,

*Original signed by*

Ian Rumbolt  
Regional Coordinator



## Technical Review Memorandum

To: Richard Dwyer, Licensing Administrator - Nunavut Water Board

From: Ian Rumbolt, Regional Coordinator - Indian and Northern Affairs Canada – Nunavut Regional Office – Water Resources Division

Re: **2BB-MEL0709 – Type ‘B’ Water Licence Renewal Application – Comaplex Minerals Corp. – Meliadine West Gold Project**

### **Background/History**

The Meliadine West gold project is an advanced exploration, bulk sampling project located 25 km west – northwest of Rankin Inlet in the Kivalliq Region of Nunavut. In 2008 the underground bulk sampling program was completed (no additional underground work scheduled for 2009); while in 2009 further surface drilling and exploration will continue.

### **INAC Submission on October 29, 2008 – Response to Comaplex Amendment Application dated September 8, 2008**

In the INAC submission dated October 29<sup>th</sup>, 2008 a number of issues were identified during the review of the Type ‘B’, Water Licence Amendment Application submitted to the Nunavut Water Board (NWB) on September 15, 2008 by Comaplex Minerals Corp. (Comaplex).

The following section formed part of INAC’s October 29, 2008 submission and identifies concerns regarding the 2008 amendment application as well as items noted in an INAC Inspectors Direction issued on August 13, 2008.

***“As referenced in their September 8, 2008 correspondence, Comaplex has applied to the NWB to amend their Type ‘B’ water license for upgrades to the project and camp site. These upgrades include;***

- ***A request to build a semi-permanent fuel berm of sufficient size to hold all fuel bladders and drums currently on the Meliadine West Property.***
- ***A request to allow for the construction and operation of a land farm to treat soils contaminated with petroleum hydrocarbons. This land farm is currently in operation on the waste rock pad, without NWB approval.***



***On August 13, 2008 the Indian and Northern Affairs Water Resources Officer issued direction to Comaplex as a result of deficiencies noted during an August 2, 2008 inspection of the site.***

***On September 8, 2008, Mark Balog on behalf of Comaplex requested a Minister's review of the Inspector's Direction. As of this date this review has not been completed. In their September 8, 2008 correspondence, Comaplex provided specific responses to all of the items stated in the August 13, 2008 Inspector's Direction with the exception of the following;***

- Within 30 days of issuance of Direction, install flow meters on the intake for all domestic and drilling uses of water.***
- Within 30 days of issuance of Direction, discontinue the discharge of grey water at the current location and install means by which grey water will not be deposited directly into Meliadine Lake."***

On December 2, 2008 the NWB issued amendment No. 2 to the current water licence (2BB-MEL0709) to allow for the construction of a fuel retention berm to hold all fuel bladders and drums at the Meliadine Lake Area project. However, the land farm was not included as part of this amendment. This was due to the lack of information, specifically, engineered drawings. Given that the land farm was not approved at this time, Comaplex Minerals is still in contravention of Section 12 of the Nunavut Waters, Nunavut Surface Rights Tribunal Act in that waste was deposited without NWB approval.

It was noted in the Comaplex "2008 Report to the Kivalliq Inuit Association, Nunavut Impact Review Board and the Nunavut Water Board for the Meliadine West Gold Project" that the greywater and blackwater/sewage issue will be addressed by upgrading its wastewater treatment system at the Meliadine Camp. The upgrades will include a wash car with flush toilets, a biodisk wastewater treatment plant and an upgraded sump that will accommodate the flow from the biodisk treatment plant. These upgrades will be incorporated during the summer 2009 and should be fully functional at that time. This upgrade should address bullet #2 above.

### **Recommendations/Comments for the current Water Licence Renewal Application:**

On October 17 the Deputy Minister (DM), on behalf of the Minister, responded to Comaplex' request to review the August 13, 2008 Inspector's Direction.. The DM basically upheld the Direction and suggested that it may be appropriate to apply to amend the current water licence to allow for a contaminated soil land farm and to seek an amendment to the water licence conditions relating to flow measurement. The current renewal application does not address the installation



of flow meters or a suitable flow measuring method (currently a water licence condition) or the land farm. Therefore the NWB should consider a condition that requires the submission of a compliance plan, with firm dates of implementation within 30 days of issuance of any renewed licence. The plan must address the installation of flow meters or flow measuring methods, the unlicensed land farm and the upgrade to the wastewater treatment facility upstream of the Meliadine Camp (see below).

### General

- 1) The NWB should require Comaplex Minerals to update their Spill Contingency and Abandonment & Restoration Plans for the Meliadine Project to include the changes and upgrades to the project.
- 2) All drill casings must be removed or cut off and upon completion of land-based drilling activities; drill holes should be sealed at their lower and upper permafrost levels and capped to prevent possible vertical movement of water which may induce thermal erosion.
- 3) After the fuel retention berm is constructed in the summer of 2009, all fuels including drums and bladders should be relocated to this area as it appears to provide adequate secondary containment.
- 4) All other applicable conditions in the current licence should be imposed in the renewed water licence.

### Land Farm

In the "2008 Report to the Kivalliq Inuit Association, Nunavut Impact Review Board and the Nunavut Water Board for the Meliadine West Gold Project" the proponent references that land farming activities will continue in 2009 and soils will be re-sampled to confirm compliance before being used as construction fill. It further states that the facility was approved by the Kivalliq Inuit Association (KIVIA). The land farm facility has not been approved by the NWB and Comaplex did not include the land farm as part of the renewal application. Figure 4 of the renewal application reveals that the land farm will be decommissioned in the summer of 2009. The deposit and treatment of waste without the NWB approval is a contravention of Section 12 of the NWNSRTA. The NWB should impose a condition in the renewal licence that requires Comaplex to submit a plan of action within 30 days of issuance, which addresses the removal of the unapproved waste to a facility that is approved to accept it. All documentation with respect to the waste removal shall be submitted to the NWB and the INAC Inspector. The plan must have firm dates of implementation. It would be acceptable to INAC for Comaplex to amend any renewal licence to incorporate a properly engineered land farm facility at the site.

If the NWB chooses to include the current land farm in the renewal licence, the following conditions should be incorporated into the approval:



- 1) Sampling for petroleum hydrocarbons should be conducted on any accumulated liquid within secondary containment prior to discharge. Contaminated liquid collected within the treatment area must be analyzed for, at least, BTEX compounds to determine compliance with the CCME Guidelines for the protection of Aquatic Life 2003. Discharge should only occur if the material meets the CCME criteria. Records of all analysis must be kept on-site and included in the Annual Report.
- 2) Comaplex should reconstruct the current land farm operation such that all remediation takes place within a lined, bermed area.
- 3) The NWB should impose a condition that requires an independent consultant with expertise in soil sampling techniques obtain samples after the remediation process is complete to ensure that any reuse of treated soils will not impact the surrounding environment including any waters.
- 4) Comaplex should provide a contingency and mitigation plan to deal with the possibility of seepage from the land farm. One consideration would be to dig a trench around the land farm with an HDPE liner to collect any seepage.
- 5) The proponent should identify the type(s) of contaminated material (fuels) transferred to the land farm. Soil or snow contaminated with heavy metals, glycols and/or heavy oils should not be placed in the land farm.
- 6) The depths for contaminated soil should range between 30 and 45 cm, thicker soil depths require more tilling to provide aeration of the contaminated soils. This could potentially affect the time (lengthen) required for proper remediation.
- 7) A detailed summary of procedures for the construction and operation of the land farm should be provided to the Nunavut Water Board. Proper equipment and appropriately trained personnel must be employed when tilling the contaminated soil and care should be taken when using the equipment. Any misuse could cause tears to any liner which may result in seepage outside of the land farm.

#### Wastewater Treatment Facilities

- 1) The proponent is advised that the upgrades to the wastewater treatment facilities for sewage and grey water should be completed and fully functional during the summer 2009. An inspection will be scheduled for the Meliadine Site to ensure compliance with the water licence.
- 2) All sewage, black and grey water should be directed to the wastewater treatment facility. It should then be disposed of in the upgraded sump prior to being discharged into wetlands for further treatment before entering the receiving water body.



## Water Use

- 1) It was stated in the August 13, 2008 INAC Inspector's Direction that Comaplex Minerals "*Within 30 days of issuance of Direction, install flow meters on the intake for all domestic and drilling uses of water*". This issue was also noted in the October 29<sup>th</sup>, 2008 INAC submission to the NWB for the amendment application for licence 2BB-MEL0709. The proponent should be reminded that under Part B, Item 7 of the existing water licence **"The Licensee shall maintain flow meters or other such devices, or implement suitable methods required for the measuring of water volumes, to be operated and maintained to the satisfaction of an inspector"**. This issue remains outstanding and must be addressed before a renewal licence is issued to Comaplex Minerals for the Meliadine Project (see Compliance Plan previously mentioned in "General" Section).

Should you have any questions or comments, please do not hesitate to contact me at (867) 975-4568 or by email at [Ian.Rumbolt@inac.gc.ca](mailto:Ian.Rumbolt@inac.gc.ca).

Sincerely,

*Original signed by*

Ian Rumbolt  
Regional Coordinator

Cc: Kevin Buck, Manager Water Resources Division, Nunavut Regional Office,  
Indian and Northern Affairs Canada