

# **RECLAIM COST ESTIMATE**

**For the**

## **MELIADINE GOLD PROJECT**

**Prepared By:**



**NUNAVUT TUNNGAVIK INC.**

**And**



**KIVALLIQ INUIT ASSOCIATION**

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**Prepared For:**

**NUNAVUT WATER BOARD**

## **EXECUTIVE SUMMARY (English)**

The Kivalliq Inuit Associations (KIA) RECLAIM estimate of security for the proposed mine that Agnico Eagle Mines Ltd. (AEM) will be building on the Meliadine Gold Project is \$51.64 million. This is the estimated amount that would be required to address the site closure requirements as outlined in the AEM Preliminary Closure and Reclamation Plan document. The liability split between land and water is 48% and 52%, respectively. The RECLAIM estimate provided by AEM has security at \$47.45 million with a liability split between land and water of 0% and 100%, respectively. The RECLAIM estimate provided by Aboriginal Affairs and Northern Development Canada (AANDC) has security at \$49.55 M with a liability split between land and water of 55% and 45%, respectively.

The main cost differences between the KIA estimate and the AEM and AANDC estimates are related to additional engineering and project management costs that the KIA has increased should the KIA, and the Crown, be required to complete the final site reclamation and closure works. The KIA and AANDC have similar liability splits between land and water of 48% / 52% and 55% / 45%, respectively.

The KIA, AEM and AANDC will continue discussions on the differences between their respective estimates for security and liability split between land and water.

## **EXECUTIVE SUMMARY (Inuktitut)**

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## 1.0 INTRODUCTION

Nunavut Tunngavik Inc. (NTI) and the Kivalliq Inuit Association (KIA) have completed a RECLAIM cost estimate of security for the proposed mine that Agnico Eagle Mines Ltd. (AEM) will be building on the Meliadine Gold Project. In addition, the KIA's RECLAIM cost estimate was compared to the RECLAIM cost estimate's prepared by AEM and Aboriginal Affairs and Northern Development Canada (AANDC).

The KIA, represents the Inuit beneficiaries of the Kivalliq Region, at the territorial and regional levels, and supports sustainable economic development opportunities for Inuit beneficiaries.

The purpose of establishing a security estimate is to ensure that all costs required to address the site closure requirements as outlined in AEM's Preliminary Closure and Reclamation Plan document are available should the KIA, and the Crown, be required to complete the final site reclamation and closure works. The review was completed by the KIA's long-time technical consultants GeoVector Management Inc. of Ottawa, Ontario. The following documents formed the basis of this review:

- 1) AEM RECLAIM cost estimate (October, 2015).
- 2) AANDC (ARCADIS) RECLAIM cost estimate (October, 2015).
- 3) AEM Preliminary Closure and Reclamation Plan (April 2015).
- 4) AEM Type A Water Licence Application (May, 2015).
- 5) AEM response to ARCADIS Preliminary Review of AEM's RECLAIM estimate (September, 2015).
- 6) Mine Site Reclamation Policy for Nunavut (INAC, 2002).
- 7) Mine Site Reclamation Guidelines for the NWT (INAC, 2007).

The KIA's RECLAIM cost estimate used the same unit rates as AEM, which are based on AEM's experience at their Meadowbank operation. The KIA considers these unit costs to be more realistic than the rates available in the current RECLAIM model. The main differences between the KIA, AEM and AANDC estimates are related to additional engineering and project management costs that have been added should the KIA, and the Crown, be required to complete the final site reclamation and closure works. The differences between the three estimates and the allocation of the security liability between land and water are related to the direct and in-direct costs as noted below and outlined in yellow in Appendix 1:

- 1) Buildings and Equipment,
- 2) Chemicals and Contaminated Soil Management,
- 3) Engineering, and
- 4) Project Management.

## **2.0 SPECIFIC COMMENTS**

The differences between the three estimates and the allocation of the security liability between land and water are related to the direct and in-direct costs as noted below and outlined in yellow in Appendix 1:

### **2.1 Buildings and Equipment**

The KIA estimate of these direct costs is similar to the AANDC estimate in both cost and the land/water allocation given that the majority of this work is related to the removal of land based site infrastructure and the reclamation of the land disturbance caused by this infrastructure. The KIA estimate is similar to the AEM estimate in cost but not similar in the land/water allocation as AEM allocated 100% of the liability to water. The detail on these differences is provided in Appendix 1.

### **2.2 Chemicals and Contaminated Soil Management**

The KIA estimate of these direct costs is similar to the AEM estimate in cost but not in the land/water allocation. The KIA allocation is 79% land and 21% water, while AEM is 0% land and 100% water. The majority of this work is related to the removal of chemicals and contaminated soil that are related to land based activities, therefore, it seems to follow that the allocation of liability should be weighted towards the land, not water.

The KIA estimate is different than the AANDC estimate in both cost and the land/water allocation. The KIA cost estimate is 27% lower, or \$706,000, due to AANDC including additional costs in building decontamination and contaminated soil investigations. The KIA allocation is 79% land and 21% water, while AANDC is 50% land and 50% water. The detail on these differences is provided in Appendix 1.

### **2.3 Engineering**

The KIA estimate of these indirect costs is 15%, which is higher than the AEM (5%) and AANDC (10%) estimates. The use of the security bond by the Crown and the KIA to complete the final site reclamation and closure works would most likely be triggered due to AEM failing as a company. One of the many impacts of such an event would be the loss of expertise and knowledge related specifically to the Meliadine Gold Project. This type of loss could lead to a longer time line, therefore, additional costs to implement the final site reclamation and closure plan.

## **2.4 Project Management**

The KIA estimate of these indirect costs is 10%, which is higher than the AEM (5%) and AANDC (5%) estimates. The use of the security bond by the Crown and the KIA to complete the final site reclamation and closure works would most likely be triggered due to AEM failing as a company. One of the many impacts of such an event would be the loss of expertise and knowledge related specifically to the Meliadine Gold Project. This type of loss could lead to a multi layered management group comprised of managers from AANDC, KIA, engineering consultants, local and non-local sub-contractors which could lead to a longer time line, therefore, additional costs to implement the final site reclamation and closure plan.

## **3.0 SUMMARY of RECOMMENDATIONS**

The KIA's RECLAIM estimate of security for the proposed mine that Agnico Eagle Mines Ltd. (AEM) will be building on the Meliadine Gold Project would be \$51.64 million. This is the estimated amount that would be required to address the site closure requirements as outlined in the AEM Preliminary Closure and Reclamation Plan document. The liability split between land and water is 48% and 52%, respectively. The results of the RECLAIM evaluation provided by AEM has estimated security at \$47.45 million, with a liability split between land and water of 0% and 100%, respectively. The results of the RECLAIM evaluation provided by AANDC has estimated the security at \$49.55 M with a liability split between land and water of 55% and 45%, respectively.

The KIA, AEM and AANDC will continue discussions on the differences between their respective estimates for security and liability split between land and water.