

December 2017



AGNICO EAGLE

**CLOSURE AND RECLAMATION STRATEGY
AND SECURITY ESTIMATE**

Pre-development Type B Water Licence

Submitted to:
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B1J0

Executive Summary

In June 2016, Agnico Eagle Mines Limited (Agnico Eagle) filed applications to the Nunavut Impact Review Board (NIRB) and Nunavut Water Board (NWB) for development of the Whale Tail Pit. A joint coordinated review of the Final Environmental Impact Statement (FEIS) and Type A Water Licence Application are ongoing, pending final ministerial approval. Following submission of the application it may take up to one year before Agnico Eagle receives a Ministerial approved Type A Water Licence authorizing full development of the Project. Since construction scheduling and implementation for the Project is dependent upon, and restricted by, the seasonal sea lift to support mobilization of supplies and equipment, waiting up to a year to receive a Type A Water Licence before starting even pre-development construction would have a significant impact on the overall project schedule.

The regulatory framework provided in the Nunavut Land Claims Agreement (NLCA) and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA or Act) allows for interim, short-term approvals for water uses related to exploration or development work (referred to as pre-development work herein) for a proposal under development impact review. The NIRB allows for approvals or licences to be issued for development activities prior to the completion of a Review if the activity falls within a list of project types normally exempt from the requirement for Screening, or if in the judgement of the NIRB, the activity may proceed without such a Review. The NWB is not restricted from issuing an interim, short-term period water licence for development work related to the Project provided the scope of works being considered for development works are being considered by the NIRB as part of the review of the Project.

Agnico Eagle has identified specific pre-development (site preparation) activities that would be beneficial in achieving the overall project schedule. The schedule planned for pre-development activities to be permitted separately, allowing construction to start soon thereafter, rather than delay the project significantly, while other permitting issues involving mine operations are addressed. This pre-development permitting approach could allow construction work to start while awaiting the Type A Water Licence, following issuance of the Project Certificate, which would be a substantial gain considering the very small window for construction in the Arctic each year.

Proposed mining activities for pre-development that will require closure and reclamation include the following:

- pre-delivery of material (i.e., equipment, construction material, and fuel);
- start construction of the permanent camp and infrastructure, which will specifically involve:
 - construction of the permanent camp pad, (which during pre-development will be used as a laydown area for pre-delivery of material);
 - construction of two water treatment pads, and
 - start of work on concrete foundations.
- construction of service roads necessary to undertake the pre-development activities nearest to the existing exploration camp site; and

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- upgrade/widen the Project access road (referred to in this document as the Haul Road) from 6.5 m wide to 9.5 m plus bypasses.

The overall goal of closure and reclamation is to return the mine site and affected areas to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment and with human activities. The overall closure goal is supported by the four closure principles of physical stability, chemical stability, no long-term active care requirements, and compatibility with future land uses for each component of the Project.

In accordance with NWNSRTA, Agnico Eagle is required to furnish and maintain security with the Minister, in a form determined by the Regulations or satisfactory to the Minister. For the NWB to be able to issue a licence, Agnico Eagle must satisfy the Board that the company has the financial ability to adequately implement mitigation measures and apply any costs associated with closing or abandonment of the undertaking.

This document provides for the closure and reclamation approach proposed by Agnico Eagle and an estimate of financial liability for the site as it pertains to the facilities and infrastructure related to pre-development and site preparations of the Whale Tail Pit and Haul Road Project in advance of receipt of a Type A Water Licence.

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1.0 INTRODUCTION

Agnico Eagle Mines Limited – Meadowbank Division (Agnico Eagle) is proposing to develop the Whale Tail Pit, a satellite deposit located on the Amaruq property, to continue mine operations and milling at Meadowbank Mine (herein referred to as the Project). The Meadowbank Mine is an approved mining operation and Agnico Eagle is looking to extend the life of the mine by constructing and operating the Whale Tail Pit within the Amaruq property. The Amaruq property is located in the Kivalliq Region of Nunavut, Canada, centered at approximately latitude 65° 24' 36" N, longitude 96° 41' 41" W. The property was acquired by Agnico Eagle in April 2013 subject to a mineral exploration agreement with Nunavut Tunngavik Incorporated. The Amaruq property is a 408 square kilometre (km²) site located on Inuit Owned Land (IOL) approximately 150 kilometres (km) north of the hamlet of Baker Lake and northwest of the Meadowbank Mine. Inuit Owned Land is governed under the Nunavut Land Claims Agreement (NLCA).

The Whale Tail deposit is partly located within Whale Tail Lake. The proposed approach to develop the pit involves isolating the pit area with three dikes (Whale Tail Dike, Mammoth Dike, and Northeast Dike). The operations phase will span approximately three to four years, during which time the Whale Tail Pit will produce approximately 8.3 million tonnes (Mt) of ore, 46.1 Mt of waste rock, and 5.6 Mt of overburden (with very limited organic material) for a total of 51.7 Mt of waste.

The proposed Project facilities will consist of a personnel camp (i.e., Main Camp), a power plant, a heli-pad, a maintenance shop, a tank farm, a waste rock storage facility (WRSF), an ore stockpiling facility, an attenuation pond, a water and sewage collection and treatment system, haul roads, service roads, water management infrastructure (e.g., collection ponds, channels, dikes, dams, and culverts), and the Whale Tail Pit. To accommodate development, Agnico Eagle is also proposing to expand the width of the existing exploration access road to a haul road to accommodate increased traffic rates and haul trucks. No new infrastructure is required at the existing Meadowbank Mine to support the development of the Project.

Ore from Whale Tail Pit will be segregated by grade then crushed on-site after which it will be transported to Meadowbank Mine for milling. The milling rate will be approximately 9,000 to 12,000 tonnes per day. Agnico Eagle proposes to process the Whale Tail ore and to dispose of the tailings slurry at the existing Meadowbank Mine tailings storage facility (TSF), which is authorized under the current Project Certificate and Type A Water Licence.

The Project is subject to the regulatory requirements of the the NLCA and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSTRA or Act), and as such is required to obtain a project certificate from the Nunavut Impact Review Board (NIRB) and a Type A Water Licence (Application) from the Nunavut Water Board (NWB) to allow for mine development and mining of the Project. In June 2016, Agnico Eagle filed amendment applications to the NIRB and NWB for development of the Project.

Following submission of the Type A Water Licence Application, it may take up to one year before Agnico Eagle receives a Ministerial approved Type A Water Licence authorizing full development of the Project. Since construction scheduling and implementation for the Project is dependent upon, and restricted by, the seasonal sea lift to support mobilization of supplies and equipment, waiting up to a year to receive a Type A Water Licence before starting even pre-development construction would have a significant impact on the overall project schedule. The regulatory framework provided in the NLCA and the Act allows for interim, short-term approvals for water uses related to exploration or development work for a proposal under development impact review. On

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October 10, 2017, the NIRB exempt the development activities listed in Section 3.0 prior to the completion of a the Whale Tail Pit Project Review as these activities fall within a list of project types normally exempt from the requirement for Screening or, if in the judgement of the NIRB, the activity may proceed without such a Review. The NWB is not restricted from issuing an interim, short-term period water licence for pre-development work related to the Project provided the scope of works being considered for development works are being considered by the NIRB as part of the review of the Project. As such, Agnico Eagle is submitting the Type B application (the Application) for the pre-development activities.

Agnico Eagle has identified specific pre-development (site preparation) activities that would be beneficial in accelerating the overall project schedule. These facilities are listed in Section 3.0 and the closure and reclamation of these facilities along with an estimate of financial liability are provided in this document.

2.0 REGULATORY CONTEXT

A detailed overview of the legislative and regulatory requirements are provided in Section 2.0 of the Main Application Supporting Document. In summary:

- The Project is subject to conformity determination to the Keewatin Regional Land Use Plan. On June 17, 2016, the Nunavut Planning Commission (NPC) issued a positive conformity determination for the Project proposal and forwarded the Project proposal and determination to the NIRB for screening (NPC 2016).
- The Project is subject to environmental and socio-economic impact assessment processes by the NIRB established under Article 12 of the NLCA and more recently subject to the ***Nunavut Planning and Project Assessment Act*** legislative requirements. The Project is currently under joint review by the NIRB and NWB. For more information on the timelines and processes used by the NIRB in screening and review, refer to Section 2.2 on the Main Application Supporting Document.
- The Project is subject to the requirements of the NWNSRTA, Regulations for water management. A Type A Water Licence Application is pending (Agnico Eagle 2016). A Type B Water Licence is required from the NWB in order for Agnico Eagle to undertake site preparation and pre-development works.
- The 408 km² Amaruq property is located on IOL, and the rights to explore and develop mineral resources were acquired by Agnico Eagle in 2013 subject to a mineral exploration agreement with Nunavut Tunngavik Inc. (NTI). The surface ownership of the land is held by the Kivalliq Inuit Association (KivIA). Land and environmental management in this area are generally governed by the provisions of the NLCA. The proposed Whale Tail Pit and associated infrastructure is to be constructed on IOL leased by Agnico Eagle from the KivIA. In addition, quarry permits will be sought from the KivIA as needed. The Project will require the authorization and consent of the KivIA for development, construction, operations, and closure of the Mine and its related facilities.

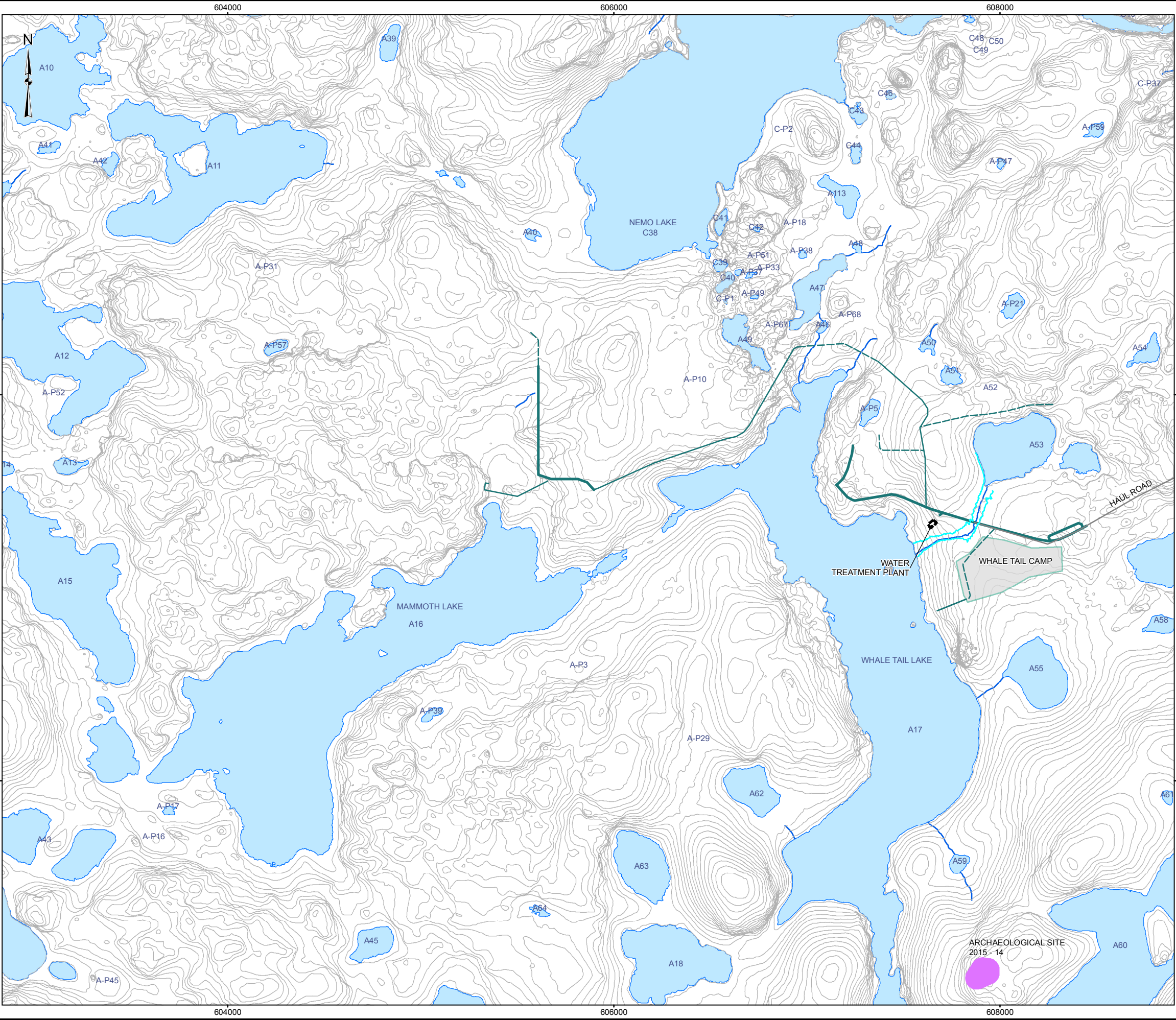
3.0 SCOPE OF PRE-DEVELOPMENT WORKS

The scope of pre-development works is provided in Section 3.0 of the Main Application Supporting Document. In summary the following pre-development works are proposed (Figure 3.1):

- pre-delivery of material (i.e., equipment, material, and fuel);
- start construction of the permanent camp and infrastructure, which will specifically involve:
 - construction of the permanent camp pad, (which during pre-development will be used as a laydown area for pre-delivery of material);
 - construction of two water treatment pads, and
 - start of work on concrete foundations.
- construction of service roads necessary to undertake the pre-development activities nearest to the existing exploration camp site; and
- upgrade/widen the Project access road (referred to in this document as the Haul Road) from 6.5 m wide to 9.5 m plus the construction of associated bypasses.

During pre-development, fuel at Amaruq will be stored in the existing double-walled envirotanks permitted under licence 2BB-MEA1318.

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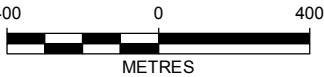


LEGEND

- ROAD
- TEMPORARY ROAD
- CULVERT
- ARCHAEOLOGICAL SITE
- WATERBODY
- WATERCOURSE

REFERENCE

1. INFRASTRUCTURE OBTAINED FROM AGNICO EAGLE MINES LIMITED FROM 6108-600-210-001_R2(2018)s.dwg.
2. WATERCOURSE AND WATERBODY DATA OBTAINED FROM PHOTOSAT
DATUM: NAD 83 CSRS PROJECTION: UTM ZONE 14



PROJECT		AGNICO EAGLE		AGNICO EAGLE MINES LIMITED: MEADOWBANK DIVISION WHALE TAIL PIT PROJECT	
TITLE		PRE-DEVELOPMENT GENERAL SITE LAYOUT FOR TYPE B WATER LICENSE APPLICATION			
		PROJECT		FILE No.	
DESIGN	JR	23 Nov. 2017	SCALE AS SHOWN		REV. 0
GIS	CDB	23 Nov. 2017			
CHECK	JR	23 Nov. 2017			
REVIEW	LY	23 Nov. 2017			
FIGURE 3.1					

CLOSURE AND RECLAMATION STRATEGY

A portable construction water treatment plant and an operational water treatment plant will be required for the Project. The construction of the water treatment plant pads are covered under this application.

In November 2015, Agnico Eagle received approval to construct an access road under the approved Type B Water Licence (8BC-AEA1525), which will connect the Vault Pit (one of the Meadowbank Mine pits) to the Amaruq exploration camp site in support of exploration activities. The proposed access road will be about 64.1 km long and, during the exploration stage, it will have a top width of 6.5 m. Under this application, Agnico Eagle is proposing to upgrade the proposed access road to accommodate increased traffic rates and haul trucks (Haul Road). The proposed upgrade of the access road entails widening from the top width from the current 6.5 m width to 9.5 m width and the construction of the associated bypasses.

The existing emulsion plant located near the Meadowbank Mine will be maintained and will provide explosive deliveries to the Whale Tail site on an as need basis during operations. The exploration access road will be used to truck explosives between Meadowbank Mine and the Whale Tail site, with minimal amounts of explosives to be stored at the Whale Tail Pit site. Explosives truck(s) will be based at the emulsion plant at Meadowbank Mine.

For the purposes of this Type B Application, any use, production and storage of explosives, will be undertaken in conjunction with the existing Type B Water Licence 2BB-MEA1318.

Fuel and raw materials for manufacturing explosives will continue to be supplied to Meadowbank Mine using the approved shipping routes.

All wastes that could attract wildlife, used spill response supplies, and other appropriate wastes will be incinerated in the Amaruq Exploration on-site incinerators. Wastes that cannot be incinerated but that can be landfilled will be shipped by winter road or by the access road and disposed of in Meadowbank's approved landfill. Wastes that cannot be incinerated or landfilled will be prepared for shipment to a certified waste management company outside of Nunavut for treatment, recycling and/or disposal.

The exploration facilities (i.e., exploration laydown area, camp, stormwater storage pond, communication tower, exploration magazine, ramp, two vent raises, a small airstrip, 10 km of exploration roads, two borrow pits, Quarry 1, and the proposed access road and associates borrow pits (seven in total) are not covered under this application as they are covered under the existing Type B Water Licence 2BB-MEA1318 as amended on December 1, 2016 for advanced exploration activities on the Amaruq property.

The material to be used for the construction of the proposed permanent camp and infrastructure pads, and services roads will be sourced from the approved Quarry 1 at the exploration camp site, and quarries and borrow pits along the Haul Road.

4.0 CLOSURE AND RECLAMATION APPROACH

Agnico Eagle estimates pre-development work could be initiated as early as January 2018, subject to NWB approval of the Type B Application for pre-development works and issuance of the Project Certificate. The process for application for pre-development work in this case is similar to the approach taken by Agnico Eagle for the pre-development work that was completed at the Meliadine Mine.

Agnico Eagle acknowledges that the NWB may require the company to furnish and maintain security with the Minister, in a form determined by the Regulations or satisfactory to the Minister. As such, Agnico Eagle has provided this Closure and Reclamation Approach and Security Estimate (the Plan). The Plan includes an estimate of financial liability for pre-development works and site preparation of \$606,555; however, Agnico Eagle would propose that the NWB defer full consideration of security of project liability to the Type A Water Licence submitted to the NWB in June 2016.

For further information on Agnico Eagle's past performance and financial responsibility refer to the Whale Tail Pit FEIS and Type A Amendment Application (Volume 8, Appendix 8-F, Section 10.0 and Appendix D; Agnico Eagle 2016).

In accordance with the Nunavut Mine Site Reclamation Policy, Agnico Eagle's financial security cost estimate for the pre-development works requested in the Application for a Type B Water Licence has been developed assuming third party contractor rates, on the presumption that Agnico Eagle would be somehow unable to fulfill its closure and reclamation obligations, and that the government would be required to take over reclamation of the works.

The decision to implement the Type B closure and reclamation approach does not mean that Agnico Eagle would abandon its current work program for which it holds valid authorizations, licenses and permits. Therefore, Agnico Eagle proposes to defer security of the pre-development components to the Type A Water Licence.

Should the pre-development activities require the implementation of the reclamation and closure plans as outlined Section 5.0 in advance of receipt of a Type A Water Licence, then the pre-development works remediation and closure would be undertaken at the same time as current approvals for the Amaruq property (refer to Section 2.3 of the Main Application Supporting Document for the Type B Application). For additional information on closure and reclamation refer to the Closure and Reclamation Plan submitted under the Type A Water Licence (where appropriate).

The closure and reclamation activities associated with the proposed Type B Water Licence pre-development work will follow applicable KivlA and federal/territorial guidelines and policies, and the closure and reclamation objectives and criteria outlined in this document and in general the Preliminary Closure and Reclamation Plan submitted with the Type A Water Licence application for the Project.

5.0 CLOSURE AND RECLAMATION ACTIVITIES

Closure and reclamation of proposed pre-development and site preparation works described in Section 3.0 will include:

- Any above grade concrete structures will be demolished and the rubble will be disposed of in the Meadowbank Mine landfill. Any slabs on grade will be punctured and then left in place and covered with soil or non-potentially acid generating/non-metal leaching waste rock. Any subgrade foundations will be left in place.
- Hazardous wastes will be removed for disposal by a licenced handler.
- An assessment will be carried out to identify areas where soils may be contaminated by hydrocarbons. Any hydrocarbon contaminated soils will be excavated and hauled to Meadowbank Mine landfarm for remediation.
- Fuel resupply, the year before closure, will be planned to leave a minimum amount in the envirotanks that will be required for closure activities. Fuel not required during the closure and reclamation activities, if any, will be sent to Meadowbank Mine for use, sold, returned to suppliers, disposed by a licensed handler, or incinerated on-site.
- Waste oil will be incinerated on-site.
- All disturbed site areas will be re-graded to suit the surrounding topography. In areas where the original ground surface was lowered for site grading or structural requirements, the slopes will be stabilized and contoured. Cover materials may be required for erosion and dust control. It is anticipated that a succession of indigenous plant species will naturally re-vegetate the surface over time.
- Service Roads to Support Pre-Development Activities:
 - The roads not required for post-closure monitoring, and not assumed by the community or by a third party after consultation, will be decommissioned and the terrain will be restored. Decommissioning of the haul road will start from the site end.
 - Decommissioning will occur by loosening compacted surfaces and flattening side slopes.
 - The road surface will be scarified, allowing the native plant community to naturally establish itself on the former road surface.
 - Slopes will be stabilized against erosion potential.
 - If necessary, wildlife access will be provided at suitable intervals by re-grading the embankment shoulders to provide flatter slopes.
 - Should potentially acid generating bedrock be exposed along the roadway, these areas will be covered with a minimum 2 m thick layer of non-potentially acid generating and non-metal leaching soil or rock to direct water away from the surface.
 - All bridges and culverts will be removed and original drainage patterns will be restored.

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- Stream crossings will be rehabilitated as they are encountered during the progression of the road decommissioning work.

Monitoring and maintenance of the reclaimed facilities will be carried out during pre-development, operations, and into closure. Periodic inspections will be performed to visually assess the reclaimed areas.

Surface and groundwater will be sampled if site specific conditions dictate during the closure period.

6.0 SCHEDULE OF CLOSURE AND RECLAMATION ACTIVITIES

Agnico Eagle requests a term from January 2018 to issuance of the Type A Water Licence to allow for pre-development activities and for site preparation. Agnico Eagle would request that, should a Type A Water Licence be issued for the Project in the future, that the Board incorporate the scope of this Type B Application/Licence into the Type A Water Licence.

Similar to the Term of Licence, Agnico Eagle also requests that, should a Type A Water Licence be issued for the Project in the future, that the Board incorporate the security required under the Type B Licence into the Type A Water Licence such that a “double bonding” for project activities of the same scope does not occur.

Agnico Eagle estimates that, if the Type A Licence is not issued, it would require 1 season to complete the work noted in this Plan. Agnico Eagle anticipates the Type A Water Licence will be issued, so this Plan would not need to be implemented.

CLOSURE AND RECLAMATION STRATEGY

7.0 ESTIMATE OF PROPOSED PRE-DEVELOPMENT WORKS FINANCIAL LIABILITY

A permanent closure and reclamation financial security cost estimate for the proposed pre-development works described in this Plan has been prepared to a conceptual level using RECLAIM Version 7.0, March 2014 (Attachment A).

A summary of the financial security cost estimate for the pre-development works is provided in Table 7.1.

Table 7.1: Summary Financial Security Cost Estimate

SUMMARY OF COSTS				
CAPITAL COSTS	COMPONENT NAME	COST	LAND LIABILITY	WATER LIABILITY
QUARRY		\$0	\$0	\$0
UNDERGROUND MINE		\$0	\$0	\$0
TAILINGS FACILITY		\$0	\$0	\$0
ROCK PILE		\$0	\$0	\$0
BUILDINGS AND EQUIPMENT		\$324,270	\$0	\$324,270
CHEMICALS AND CONTAMINATED SOIL MANAGEMENT		\$21,235	\$0	\$21,235
SURFACE AND GROUNDWATER MANAGEMENT		\$0	-	\$0
INTERIM CARE AND MAINTENANCE		\$0	-	\$0
	SUBTOTAL: Capital Costs	\$345,505	\$0	\$345,505
	PERCENT OF SUBTOTAL		0%	100%
INDIRECT COSTS		COST	LAND LIABILITY	WATER LIABILITY
MOBILIZATION/DEMOBILIZATION		\$68,350	\$0	\$68,350
POST-CLOSURE MONITORING AND MAINTENANCE		\$79,138	\$0	\$79,138
ENGINEERING	5%	\$17,275	\$0	\$17,275
PROJECT MANAGEMENT	5%	\$17,275	\$0	\$17,275
HEALTH AND SAFETY PLANS/MONITORING & QA/QC	1%	\$3,455	\$0	\$3,455
BONDING/INSURANCE	1%	\$3,455	\$0	\$3,455
CONTINGENCY	20%	\$69,101	\$0	\$69,101
MARKET PRICE FACTOR ADJUSTMENT	0%	\$0	\$0	\$0
	SUBTOTAL: Indirect Costs	\$258,050	\$0	\$258,050
TOTAL COSTS		\$603,555	\$0	\$603,555
Note: Existing underground workings from explorations are covered under Type B land and water permits				

8.0 References

- Agnico Eagle. 2016. Whale Tail Pit Final Environmental Impact Statement and Type A Water Licence Amendment Application, currently under review. Submitted in June 2016.
- NPC (Nunavut Planning Commission). 2016. File #148297 Whale Tail Pit Project – Meadowbank Division on June 17, 2016.
- NWB (Nunavut Water Board). 2016. Water Licence 2BB-MEA-1318 Meadowbank Advanced Exploration Project (previously 2BE-MEA1318). Issued on December 01, 2016. Expires on March 06, 2018).

ATTACHMENT A

**Security Estimate - Reclaim Model v.7.0 - Whale Tail Pit Type B
Water Licence for Pre-development Works**

SUMMARY OF COSTS

CAPITAL COSTS	COMPONENT NAME	COST	LAND LIABILITY	WATER LIABILITY
QUARRY		\$0	\$0	\$0
UNDERGROUND MINE		\$0	\$0	\$0
TAILINGS FACILITY		\$0	\$0	\$0
ROCK PILE		\$0	\$0	\$0
BUILDINGS AND EQUIPMENT		\$324,270	\$0	\$324,270
CHEMICALS AND CONTAMINATED SOIL MANAGEMENT		\$21,235	\$0	\$21,235
SURFACE AND GROUNDWATER MANAGEMENT		\$0	-	\$0
INTERIM CARE AND MAINTENANCE		\$0	-	\$0
	SUBTOTAL: Capital Costs	\$345,505	\$0	\$345,505
	PERCENT OF SUBTOTAL		0%	100%

INDIRECT COSTS		COST	LAND LIABILITY	WATER LIABILITY
MOBILIZATION/DEMOBILIZATION		\$68,350	\$0	\$68,350
POST-CLOSURE MONITORING AND MAINTENANCE		\$79,138	\$0	\$79,138
ENGINEERING	5%	\$17,275	\$0	\$17,275
PROJECT MANAGEMENT	5%	\$17,275	\$0	\$17,275
HEALTH AND SAFETY PLANS/MONITORING & QA/QC	1%	\$3,455	\$0	\$3,455
BONDING/INSURANCE	1%	\$3,455	\$0	\$3,455
CONTINGENCY	20%	\$69,101	\$0	\$69,101
MARKET PRICE FACTOR ADJUSTMENT	0%	\$0	\$0	\$0
	SUBTOTAL: Indirect Costs	\$258,050	\$0	\$258,050

TOTAL COSTS		\$603,555	\$0	\$603,555
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Note: Existing underground workings from explorations are covered under Type B land and water permits

Building / Equip Name:		Bldg / Equip #:						
ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	% Cost Land	Land Cost	Water Cost
DISPOSE MOBILE EQUIPMENT								
Decontaminate and ship off-site	Blast hole drill covered in Exploration Type B. Construction eqpt will be demobed by Contractor.	allow	1	AE	\$5,000.00	\$5,000	\$0	\$5,000
Decontaminate and dispose on-site		manhours		#N/A	\$0.00	\$0	\$0	\$0
Other				#N/A	\$0.00	\$0	\$0	\$0
REMOVE BUILDINGS - see note below								
Accommodation Complex - Main Camp	No buildings, only camp pad in pre-development.	m2		#N/A	\$0.00	\$0	\$0	\$0
Process Facilities - Crushers	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
Offices, kitchen, ERT	Use exploration facilities during pre-development. In exploration Type B estimate.	m2		#N/A	\$0.00	\$0	\$0	\$0
Storage Facilities (Main Warehouse)	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
Water and Wastewater Treatment Facilities	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
Power Plant	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
Communication Tower	In exploration Type B estimate.	m2		#N/A	\$0.00	\$0	\$0	\$0
UG Heating Plant	In exploration Type B estimate.	m2		#N/A	\$0.00	\$0	\$0	\$0
Emulsion Plant	In exploration Type B estimate.	m2		#N/A	\$0.00	\$0	\$0	\$0
AN Storage Facility	In exploration Type B estimate.	m2		#N/A	\$0.00	\$0	\$0	\$0
Shops and Other	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
Storage Facility at Laydown/Airstrip	Not applicable/in exploration Type B estimate.	m2		#N/A	\$0.00	\$0	\$0	\$0
Fuel tanks on site / Bulk fuel tank	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
Fuel Tanks	Enviro tanks In exploration Type B estimate.	m2		#N/A	\$0.00	\$0	\$0	\$0
Fire protection- Pumping station	Use exploration facilities during pre-development. In exploration Type B estimate.	m2		#N/A	\$0.00	\$0	\$0	\$0
Freshwater intake	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
Reclaim pumps	Not applicable - not in pre-development	allow		#N/A	\$0.00	\$0	\$0	\$0
Outfall & Diffuser	Not applicable - not in pre-development	allow		#N/A	\$0.00	\$0	\$0	\$0
Airstrip lighting, navigation, electrician	Not applicable	mandays		#N/A	\$0.00	\$0	\$0	\$0
Airstrip lighting, navigation, mechanical	Not applicable	mandays		#N/A	\$0.00	\$0	\$0	\$0
Break foundation slabs	Assume pre-development includes slab on grade for cold storage	m2	4500.0	BRCS	\$6.00	\$27,000	\$0	\$27,000
Place granular fill over slabs	Assume 0.5 m thick	m3	2250	SC1L	\$4.30	\$9,675	\$0	\$9,675
Consolidate & dump boneyard debris	Load debris and haul to landfill at Meadowbank	m3	200	SC2H	\$11.75	\$2,350	\$0	\$2,350
Steel - teardown	Not applicable - not in pre-development	hrs		#N/A	\$0.00	\$0	\$0	\$0
Ramp portal	In exploration Type B estimate.	m2		#N/A	\$0.00	\$0	\$0	\$0
Workers Dry	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
WTP & Fresh water pumping station	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
WRSF Pond, Attenuation Pond pumphouses	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
Water Intake	Not applicable - not in pre-development	m2		#N/A	\$0.00	\$0	\$0	\$0
LANDFILL FOR DEMOLITION WASTE								
Place rock cover	No on-site landfill for pre-development - haul to Meadowbank	m3		#N/A	\$0.00	\$0	\$0	\$0
Place soil cover		m3		#N/A	\$0.00	\$0	\$0	\$0
Vegetate		ha		#N/A	\$0.00	\$0	\$0	\$0
GRADE AND CONTOUR PADS								
Accommodation Complex - Main Camp	Scarify camp and infrastructure pad	ha	6	SCFYL	\$4,300.00	\$25,800	\$0	\$25,800
Process Facilities - Crushers	Not applicable - not in pre-development	m3		#N/A	\$8.47	\$0	\$0	\$0
Offices, kitchen, ERT	Use exploration facilities during pre-development. In exploration Type B estimate.	m3		#N/A	\$8.47	\$0	\$0	\$0
Storage Facilities (Main Warehouse)	Not applicable - not in pre-development	m3		#N/A	\$8.47	\$0	\$0	\$0
Water and Wastewater Treatment Facilities	Not applicable - not in pre-development	m3		#N/A	\$8.47	\$0	\$0	\$0
Power Plant	Not applicable - not in pre-development	m3		#N/A	\$8.47	\$0	\$0	\$0
Communication Tower	In exploration Type B estimate.	m2		#N/A	\$8.47	\$0	\$0	\$0
UG Heating Plant	In exploration Type B estimate.	m3		#N/A	\$0.00	\$0	\$0	\$0
Emulsion Plant	In exploration Type B estimate.	m3		#N/A	\$0.00	\$0	\$0	\$0
Shops and Other	Not applicable - not in pre-development	m3		#N/A	\$8.47	\$0	\$0	\$0
Fuel tanks on site / Bulk fuel tank	Not applicable - not in pre-development	m3		#N/A	\$8.47	\$0	\$0	\$0
Fire protection- Pumping station	Use exploration facilities during pre-development. In exploration Type B estimate.	m3		#N/A	\$8.47	\$0	\$0	\$0
Ramp portal	In exploration Type B estimate.	m3		#N/A	\$0.00	\$0	\$0	\$0
Workers Dry	Not applicable - not in pre-development	m3		#N/A	\$8.47	\$0	\$0	\$0
Place rock cover		m3		#N/A	\$0.00	\$0	\$0	\$0
Vegetate		ha		#N/A	\$0.00	\$0	\$0	\$0
Operational WTP	Construction WTP will be portable	m3	772.61	AE	\$8.47	\$6,544	\$0	\$6,544
WRSF Pond, Attenuation Pond pumphouses	Not applicable - not in pre-development	m3		#N/A	\$0.00	\$0	\$0	\$0
PUNCTURE LINED SUMPS								
Puncture liner and place soil cover		m3		#N/A	\$0.00	\$0	\$0	\$0
RECLAIM ROADS								
Remove culverts and rip rap sides of roads	For on site access roads from pre-development. Removal of bridges and culverts on haul road are already in Type B for site access road.	allow	1	EA	\$3,000.00	\$3,000	\$0	\$3,000
Scarify roads	On site access roads - assumed 8 m wide, 7.7 km	ha	6.16	SCFYH	\$6,030.00	\$37,145	\$0	\$37,145
Remove bridge		allow		#N/A	\$0.00	\$0	\$0	\$0
Scarify and install water breaks - Haul Road	Incremental width from exploration road (9.5m-6.5m) x 64.1 km. Bridges and culverts are in current Type B permit for access road.	ha	19.23	SCFYH	\$6,030.00	\$115,957	\$0	\$115,957
Scarify bypasses - Haul Road	Bypass details: 9.5m wide, 100m long, one every 400 m	ha	15.22	SCFYH	\$6,030.00	\$91,799	\$0	\$91,799
Scarify airstrip	Not applicable	ha		#N/A	\$0.00	\$0	\$0	\$0
Scarify overburden storage and ore stockpile areas	Not applicable - not in pre-development	ha		SCFYH	\$6,030.00	\$0	\$0	\$0
Vegetate	Allow to revegetate naturally.	ha		#N/A	\$0.00	\$0	\$0	\$0
Other				#N/A	\$0.00	\$0	\$0	\$0
SPECIALIZED ITEMS								
Dispose of misc. debris and laydown area refuse		each		#N/A	\$0.00	\$0	\$0	\$0
Total						\$324,270	\$0	\$324,270
% of Total							0%	100%

Note

Estimates are based on Figure 3-1 of the Closure Plan submitted with the Pre-development Type B Water Licence Application

1 Chemicals/Soil Area Name:

Note: The procedures, equipment and packaging for clean up and removal of chemicals or contaminated soils are highly dependent on the nature of the chemicals and their existing state of containment. Government guidelines should be consulted on an individual chemical basis. Any estimate made here should be considered very rough unless specific evaluations have been conducted.

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	% Cost Land	Land Cost	Water Cost
HAZARDOUS MATERIALS AUDIT								
Hazardous materials audit		mandays		#N/A	\$0.00	\$0	\$0	\$0
Phase 1 audit		each		#N/A	\$0.00	\$0	\$0	\$0
Phase 2 audit		each		#N/A	\$0.00	\$0	\$0	\$0
BUILDING DECONTAMINATION & CONSOLIDATION OF HAZARDOUS MATERIALS								
Environmental technician/coordinator		mandays		#N/A	\$0.00	\$0	\$0	\$0
Decontaminate: oil, fuel		mandays	1 AE		\$1,000.00	\$1,000	\$0	\$1,000
Decontaminate maintenance shop		mandays		#N/A	\$0.00	\$0	\$0	\$0
Decontaminate power plant		mandays		#N/A	\$0.00	\$0	\$0	\$0
Decontaminate bulk fuel storage		mandays		#N/A	\$0.00	\$0	\$0	\$0
Decontaminate ANFO plant	In exploration Type B estimate.	mandays		#N/A	\$0.00	\$0	\$0	\$0
Decontaminate offices/warehouse/accum		mandays		#N/A	\$0.00	\$0	\$0	\$0
Removal of asbestos siding on buildings		m2		#N/A	\$0.00	\$0	\$0	\$0
Removal of friable asbestos on equipment		m2		#N/A	\$0.00	\$0	\$0	\$0
Other				#N/A	\$0.00	\$0	\$0	\$0
HAZARDOUS MATERIALS REMOVAL								
Waste oils	Burn on site	litre	1000 ORL		\$0.43	\$430	\$0	\$430
Unused fuel	Burn on site	litre	500 ORL		\$0.43	\$215	\$0	\$215
Waste batteries	includes fee and transportation	allow	5 AE		\$500.00	\$2,500	\$0	\$2,500
Assay & environmental lab reagents		kg		#N/A	\$0.00	\$0	\$0	\$0
Machine shop paints, solvents etc		allow		#N/A	\$0.00	\$0	\$0	\$0
Glycol		allow		#N/A	\$0.00	\$0	\$0	\$0
Process reagents		kg		#N/A	\$0.00	\$0	\$0	\$0
Nuclear sources		allow		#N/A	\$0.00	\$0	\$0	\$0
Other hazardous materials	includes fee and transportation	allow	1 AE		\$2,500.00	\$2,500	\$0	\$2,500
HAZARDOUS MATERIALS								
Transportation to disposal facility		allow		#N/A	\$0.00	\$0	\$0	\$0
Disposal fees		allow		#N/A	\$0.00	\$0	\$0	\$0
Other				#N/A	\$0.00	\$0	\$0	\$0
CONTAMINATED SOILS								
Contam. soil investigation - Phase 1		each	0.25 CS1L		\$7,500.00	\$1,875	\$0	\$1,875
Contam. soil investigation - Phase 2		each	0.2 CS2L		\$50,000.00	\$10,000	\$0	\$10,000
CONTAMINATED SOIL REMOVAL								
Excavate and transport to Meadowbank landfarm (Site fuel, power plant, Mine maintenance shop)		m3	50 SB2H		\$7.30	\$365	\$0	\$365
Manage hydrocarbon remediation at Meadowbank landfarm		m3	50 CSRL		\$47.00	\$2,350	\$0	\$2,350
Reagents/stabilizing agent		m2		#N/A	\$0.00	\$0	\$0	\$0
Excavate and transport to offsite facility		m3		#N/A	\$0.00	\$0	\$0	\$0
Contour decontaminated area		m3	DSL		\$0.95	\$0	\$0	\$0
CONTAMINATED SOIL VERY LOW PERMEABILITY COVER								
Supply geomembrane, HDPE, ES3, GCL		m2		#N/A	\$0.00	\$0	\$0	\$0
Upper and lower bedding layers		m3		#N/A	\$0.00	\$0	\$0	\$0
Install geomembrane, HDPE, ES3, GCL		m2		#N/A	\$0.00	\$0	\$0	\$0
Erosion protection layer		m3		#N/A	\$0.00	\$0	\$0	\$0
Vegetate		m2		#N/A	\$0.00	\$0	\$0	\$0
Install infiltration/seepage instrumentation		allow		#N/A	\$0.00	\$0	\$0	\$0
Other				#N/A	\$0.00	\$0	\$0	\$0
OTHER								
				#N/A	\$0.00	\$0	\$0	\$0
Total						\$21,235	\$0	\$21,235
% of Total							0%	100%

1 Post-Closure Monitoring & Maintenance:

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost	Unit Cost	Cost
				Code		
MONITORING & INSPECTIONS						
Annual geotechnical inspection		each	1	VIH	\$7,977.79	\$7,978
Surface water sampling		each	1	WSH	\$10,000.00	\$10,000
Ground water sampling		each	0	WSH	\$10,000.00	\$0
Receiving/downstream water sampling		each	1	WSH	\$10,000.00	\$10,000
Monitoring program		ech		#N/A	\$0.00	\$0
Survey inspection		each		#N/A	\$0.00	\$0
Regulatory costs*		each		#N/A	\$0.00	\$0
Site water monitoring (AEMP and SNP)		each		#N/A	\$0.00	\$0
- Active closure and flooding		each		#N/A	\$0.00	\$0
- Post pit flooding		each		#N/A	\$0.00	\$0
Air Quality Monitoring Program (AQMP)		each		#N/A	\$0.00	\$0
Wildlife Effects Monitoring Program (WEMP)		each		#N/A	\$0.00	\$0
Vegetation Monitoring		each		#N/A	\$0.00	\$0
Other				#N/A	\$0.00	\$0
COVER MAINTENANCE						
Repair erosion - infill gullies		allow		#N/A	\$0.00	\$0
Repair erosion - upgrade diversion ditches		allow		#N/A	\$0.00	\$0
Remove problem vegetation		allow		#N/A	\$0.00	\$0
Repair animal damage		allow		#N/A	\$0.00	\$0
Repair/upgrade access controls		allow		#N/A	\$0.00	\$0
Other				#N/A	\$0.00	\$0
SPILLWAY MAINTENANCE						
Repair erosion		m3		#N/A	\$0.00	\$0
Clear spillway		each		#N/A	\$0.00	\$0
CWTS MAINTENANCE						
Maintain flow, restore vegetation		allow		#N/A	\$0.00	\$0
WATER TREATMENT						
Water treatment - refer to water treatment tab		each	1	WT tab	\$0.00	\$0
POST-CLOSURE WATER TREATMENT						
Subtotal, Annual post-closure costs						\$27,978
Discount rate for calculation of net present value of post-closure cost, %				3.00%		
Number of years of post-closure activity	Assumed			3 years		
Present Value of payment stream						\$79,138

*Regulatory costs - annual reporting, management plans, progress reports etc

1 Mobilization/Demobilization:

ACTIVITY/MATERIAL	Notes	Units	Quantity	Cost Code	Unit Cost	Cost
MOBILIZE HEAVY EQUIPMENT						
Excavators	1 excavator - time in transit from Meadowbank	hrs	3 exc-sL		190	\$570
Dump trucks		each	#N/A		0	\$0
Dozers	1 dozer - time in transit from Meadowbank	hrs	3 dozersH		260	\$780
Demolition shears		each	#N/A		0	\$0
Crane		each	#N/A		0	\$0
Loader		each	#N/A		0	\$0
Compactor		each	#N/A		0	\$0
Flat bed truck	1 excavator @ 30t + 1 dozer @ 50 t x 70 km	kmtonne	5600 MHERL		3.4	\$19,040
Light duty vehicles	2 at 3hrs each way	each	6 AE		20	\$120
MOBILIZE MISC. EQUIPMENT						
Pump shipping		each	#N/A		0	\$0
Pipe shipping		m	#N/A		0	\$0
Minor tools and equipment		allow	1 AE		2500	\$2,500
Truck tires		allow	#N/A		0	\$0
Other			#N/A		0	\$0
MOBILIZE CAMP						
Maintain Camp Accomodations		mandays	210 ACCML		100	\$21,000
Reclamation activities		allow	#N/A		0	\$0
Long term reclamation activities (eg pump flooding)		allow	#N/A		0	\$0
MOBILIZE WORKERS						
Reclamation activities - travel time	Round trip to Baker Lake by light duty trucks: 4 hours each way	manhours	48 AE		31	\$1,488
Crew transportation (ticket and travel accomodation)		each	#N/A			\$0
Reclamation activities - transport	2 round trips from Baker Lake by 2 trucks	km	1200 AE		0.75	\$900
Long term reclamation activities (eg pump flooding) - travel time	Round trip to Baker Lake by light duty trucks: 4 hours each way	manhours	32 #N/A		31	\$992
Long term reclamation activities (eg pump flooding) - ticket and travel accomodation		each	#N/A		0	\$0
Long term reclamation activities - transport	1 round trip from Baker Lake by 1 truck	km	600 AE		0.75	\$450
WORKER ACCOMODATIONS						
Reclamation activities		manmonths	#N/A		0	\$0
Long term reclamation activities (eg pump flooding)		manmonths	#N/A		0	\$0
MOBILIZE FUEL						
Fuel freight - reclamation activities		litre	#N/A		0	\$0
Fuel freight - long term reclamation activities		litre	#N/A		0	\$0
Fuel freight accomodations		litre	#N/A		0	\$0
WINTER ROAD						
Construction and operation		km	#N/A		0	\$0
Limited winter use		km	#N/A		0	\$0
Winter road tariff		km	#N/A		0	\$0
DEMOLILIZE HEAVY EQUIPMENT						
Excavators	1 excavator - time in transit to Meadowbank	hrs	3 exc-sL		190	\$570
Dump trucks		km	#N/A		0	\$0
Dozers	1 dozer - time in transit back to Meadowbank	hrs	3 dozersH		260	\$780
Demolition shears		km	#N/A		0	\$0
Crane		km	#N/A		0	\$0
Loader		km	#N/A		0	\$0
Compactor		each	#N/A		0	\$0
Light duty vehicles	2 at 3hrs each way	each	6 AE		20	\$120
Flat bed truck	1 excavator @ 30t + 1 dozer @ 50 t x 70 km	kmtonne	5600 MHERL		3.4	\$19,040
DEMOLILIZE CAMP						
		allow	#N/A		0	\$0
DEMOLILIZE WORKERS						
crew travel time	trip)	mandays	#N/A		0	\$0
crew transportation	trip)	each	#N/A		0	\$0
WINTER ROAD						
Construction and operation		km	#N/A		0	\$0
Limited winter use		km	#N/A		0	\$0
Winter road tariff		km	#N/A		0	\$0
					Total	\$68,350

Note: Labour costs not included under mobilization - included elsewhere