

MEMORANDUM

Date: October 24, 2007
To: Mr. Derek Chubb
cc: Steven Aiken
From: Reagan McIsaac
Re: Mary River Project Bulk Sampling Program – RECLAIM Model Results

File No.: NB102-181/10-A.01
Cont. No.: NB07-00898

Derek,

As required by the Nunavut Water Board (NWB) General Conditions of Licence 2BB-MRY0710 dated July 27, 2007, a supplemental reclamation cost assessment for the abandonment and restoration of Baffinland's Mary River project following completion of the proposed bulk sampling program was completed using the RECLAIM model (version 5.1).

The RECLAIM modeling was based on the June 2007 Abandonment and Restoration Plan (A&R Plan, Knight Piesold Ref. No. NB102-00181/6-7, Rev. 1 dated 13-June-2007). This plan was written with a view to address all project-related activity and infrastructure related to the existing exploration and geotechnical drilling as well as the bulk sampling program. As described in the A&R Plan, final abandonment will include removing all equipment and materials either off-site or into the on-site landfill (for inert materials), and restoring much of the site to near original conditions as appropriate. Anything requiring removal off-site will be transported overland to Milne Inlet and then to Montreal via a sealift where the materials will be salvaged or properly disposed.

The RECLAIM model cost estimate is based on a number of assumptions. For example, although most of the equipment returning to Montreal will have residual value or can be relocated to other exploration projects, the salvage value for items has not been incorporated into the model. In addition to the models 10% contingency cost, a separate contingency cost item accounting for the unlikely potential to remediate acid generation (ARD) and/or metal leaching (ML) arising from the bulk sample pits and weathered ore stockpile as per the A&R Plan has been incorporated into the model. It is also assumed that the equipment that is on site for the bulk sampling program is used to complete the remediation work and the cost to remove this equipment is included as part of the bulk sampling program operational costs.

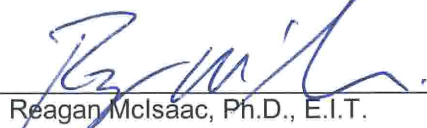
The estimated cost to complete the final abandonment work using the RECLAIM model is \$3,543,748. The results of the RECLAIM model are attached.

The NWB Licence conditions under Part H (items 8, 10, 12 and 14) are not consistent with the A&R Plan and therefore have not been included in the RECLAIM modeling. In addition the A&R plan does not include the removal of all the culvert crossings along the bulk sampling road as outlined in item 9 of the Part H requested conditions, but it does include the removal of 10 navigatable water crossings along the road as is required under separate approvals. The A&R Plan was distributed for review by the NWB and Baffinland is not aware of any comments or concerns having been filed.


The estimated cost to complete the final abandonment work included in the A&R Plan was \$5,407,000 (includes contingency for remediation of ARD/ML at pits and weathered ore stockpile). This cost was determined based on Baffinland's experience operating in North Baffin Island and Knight Piesold's experience with abandonment work in Canada and internationally. Confirmation of the reasonableness of the civil works aspects of the A&R Plan cost estimate was also provided by an experienced northern contractor.

The costs presented in the A&R Plan are higher than those calculated using the RECLAIM model. The costs presented in the A&R Plan are therefore considered conservative.

Signed:


Reagan McIsaac, Ph.D., E.I.T.

Approved By:


Ken Embree, P. Eng., Managing Director

Attachments:

- RECLAIM model (version 5.1) cost estimate (13 pages)

SUMMARY OF COSTS**Capital Costs**

COMPONENT TYPE	COMPONENT NAME	TOTAL COST	Land Liability	Water Liability
OPEN PIT	2 Bulk Sample Pits	\$22,322.00	\$22,322	\$0
UNDERGROUND MINE	0	NO UNDERGROUND MINE		
TAILINGS	0	NO TAILINGS FACILITY		
ROCK PILE	Remnant Ore	\$28,040.00	\$28,040	\$0
BUILDINGS AND EQUIPMENT	0	\$591,310.80	\$483,388	\$107,923
CHEMICALS AND SOIL MANAGEMENT	Camps and Operation	\$168,842.00	\$168,842	\$0
WATER MANAGEMENT	Bulk Sample Program	\$780.00	\$0	\$780
POST-CLOSURE SITE MAINTENANCE		\$593,105.53	\$444,357	\$148,749
SUBTOTAL		\$1,404,400	\$1,146,949	\$257,452
Percentages				
MOBILIZATION/DEMOBILIZATION	0	\$1,825,686		
MONITORING AND MAINTENANCE	0	\$149,000		
PROJECT MANAGEMENT - Project Management costs have already been included in the Monitoring and Maintenance costs				
ENGINEERING	3 %	\$42,132		
CONTINGENCY	10 %	\$122,530		
GRAND TOTAL - CAPITAL COSTS		\$3,543,748		

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Open Pit Name: 2 Bulk Sample Pits Pit # 1

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: CONTROL ACCESS								
• Controlled access is not required.								
B OBJECTIVE: STABILIZE SLOPES								
• Drill and blast pit crests	m3	500	DBh	22	\$11,000	100%	\$11,000	\$0
• Buldoze/trim overburden at crest	m3	500	DRh	1.95	\$975	100%	\$975	\$0
• Runoff diversion berms around tops of both open pits	m3	100	SB2h	5.97	\$597	100%	\$597	\$0
C OBJECTIVE: COVER/CONTOUR SLOPES								
• Weathered shallow bulk sample pit will not require capping. If visual observations or runoff water analyses (SEE POST CLOSURE COSTS) suggest otherwise a contingency plan (SEE POST CLOSURE COSTS) will be implemented to mix the weathered ore with neutralizing material and to reroute up-gradient surface runoff around the pile.								
D OBJECTIVE: SPILLWAY								
• Spillway is not required at this site as pits are self-draining.								
E OBJECTIVE: FLOOD PIT								
• Shallow pit is self draining and thus will not be flooded.								
F RECLAIM QUARRIES								
• Borrow areas will be progressively reclaimed as part of operations, including maintaining stable side slopes and restoration of natural drainage.								
• Recontour borrow areas	m3	5000	DRh	1.95	\$9,750	100%	\$9,750	\$0
H OTHER ITEMS								
Subtotal					\$22,322	100%	\$22,322	\$0
					Total Pits	Percent Land	Total Land	Total Water

1 Tailings Impoundment Name: _____ Impoundment # 1

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: CONTROL ACCESS								
Fence	m		#N/A	0	\$0		\$0	\$0
Signs	each		#N/A	0	\$0		\$0	\$0
Ditch, mat'l A	m3		#N/A	0	\$0		\$0	\$0
, mat'l B	m3		#N/A	0	\$0		\$0	\$0
Berm	m3		#N/A	0	\$0		\$0	\$0
Block roads	m3		#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
B OBJECTIVE: STABILIZE EMBANKMENT								
Toe buttress, drain mat'l	m3		#N/A	0	\$0		\$0	\$0
, fill mat'l A	m3		#N/A	0	\$0		\$0	\$0
, fill mat'l B	m3		#N/A	0	\$0		\$0	\$0
Rip rap	m3		#N/A	0	\$0		\$0	\$0
Vegetate	ha		#N/A	0	\$0		\$0	\$0
Raise crest	m3		#N/A	0	\$0		\$0	\$0
Flatten slopes	m3		#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
C OBJECTIVE: COVER TAILINGS								
Soil cover	m3		#N/A	0	\$0		\$0	\$0
Rip rap	m3		#N/A	0	\$0		\$0	\$0
Vegetate			#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
D OBJECTIVE: FLOOD TAILINGS								
Ditch, mat'l A			#N/A	0	\$0		\$0	\$0
, mat'l B			#N/A	0	\$0		\$0	\$0
Raise crest	m3		#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
E OBJECTIVE: TAILINGS SUPERNATANT								
Pump water	m3		#N/A	0	\$0		\$0	\$0
Supply reagents	tonne		#N/A	0	\$0		\$0	\$0
Operate treatment plant	m3		#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
F OBJECTIVE: UPGRADE SPILLWAY								
Excavate channel, mat'l A	m3		#N/A	0	\$0		\$0	\$0
, mat'l B	m3		#N/A	0	\$0		\$0	\$0
Concrete	m3		#N/A	0	\$0		\$0	\$0
Rip rap	m3		#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
G OBJECTIVE: STABILIZE DECANT SYSTEM								
Remove	m3		#N/A	0	\$0		\$0	\$0
Plug/backfill	m3		#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
H OBJECTIVE: REMOVE TAILINGS DISCHARGE								
Cyclones	m3		#N/A	0	\$0		\$0	\$0
Pipe	m3		#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
I SPECIALIZED ITEMS								
			#N/A	0	\$0			\$0
Subtotal					\$0		\$0	\$0
					Total Tailings	#DIV/0! Percent Land	Total Land	Total Water

1	Underground Mine Name	UG Mine #	1					
ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: CONTROL ACCESS								
Fence	m		#N/A	0	\$0		\$0	\$0
Signs	each		#N/A	0	\$0		\$0	\$0
Ditch, mat'l A	m3		#N/A	0	\$0		\$0	\$0
, mat'l B	m3		#N/A	0	\$0		\$0	\$0
Berm	m3		#N/A	0	\$0		\$0	\$0
Block adits	m3		#N/A	0	\$0		\$0	\$0
Cap shaft	m3		#N/A	0	\$0		\$0	\$0
Cap raise #1	m3		#N/A	0	\$0		\$0	\$0
Cap raise #2	m3		#N/A	0	\$0		\$0	\$0
Backfill adits	m3		#N/A	0	\$0		\$0	\$0
Backfill shaft	m3		#N/A	0	\$0		\$0	\$0
Backfill raise #1	m3		#N/A	0	\$0		\$0	\$0
Backfill raise #2	m3		#N/A	0	\$0		\$0	\$0
Backfill open stopes			#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
B OBJECTIVE: STABILIZE GROUND SURFACE								
Backfill mine			#N/A	0	\$0		\$0	\$0
Collapse crown pillar			#N/A	0	\$0		\$0	\$0
Contour, mat'l A	m3		#N/A	0	\$0		\$0	\$0
, mat'l B	m3		#N/A	0	\$0		\$0	\$0
Maintain de "M TOP /MAINTENANCE" costing component)			#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
C OBJECTIVE: LOCK UP								
Plug adits	m3		#N/A	0	\$0		\$0	\$0
Plug drillholes to surface	each		#N/A	0	\$0		\$0	\$0
Grouting	m3		#N/A	0	\$0		\$0	\$0
Lime addition, kg/m3 of water	tonne		#N/A	0	\$0		\$0	\$0
Lime, purchase and shipping	tonne		#N/A	0	\$0		\$0	\$0
D OBJECTIVE: HAZARDOUS MATERIALS								
remove hazardous materials	each		#N/A	0			\$0	\$0
remove/decontam. equipment	each		#N/A	0	\$0		\$0	\$0
Other			#N/A	0	\$0		\$0	\$0
E SPECIALIZED ITEMS								
			#N/A	0	\$0		\$0	\$0
Subtotal					\$0	#DIV/0! Percent Land	\$0 Total Land	\$0 Total Water
					Total U/G			

1

Rock Pile Name: Remnant Ore Rock Pile #: 1

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
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A OBJECTIVE: STABILIZE SLOPES

- The weathered ore stockpile will be constructed with 2H:1V side slopes and to a height of approx. 4 m which will be physically stable in the long term.
- Inspection during post-closure site visits will verify this.

B OBJECTIVE: COVER DUMP

- No cover planned.

C OBJECTIVE: RELOCATE DUMPS

- Remnant ore at the ore/pad interface will be left in place and covered with approximately 1.0 meter of borrow material (SEE BELOW).
- Any remnant ore from the temporary crusher feed ore stockpiles at Mary River upon final abandonment will be left in place and covered with approximately 1.0m of borrow material (SEE BELOW).
- The potential for the weathered ore stockpile to produce poor quality run-off is considered low. Progressive reclamation as part of operations include a perimeter berm and rerouting of up-gradient surface runoff around the pile with shallow drainage paths. If visual observations or runoff water analyses (SEE POST CLOSURE COSTS) suggest otherwise a contingency plan (SEE POST CLOSURE COSTS) will be implemented to mix the weathered ore with neutralizing material.

Buldoze/trim remnant crusher feed ore stockpiles at Mary River	m3	6500	DSI	0.78	\$5,070	100%	\$5,070	\$0
Apply 1.0m borrow cover over regraded remnant crusher feed ore stockpiles at Mary River	m3	1000	SB4h	8.95	\$8,950	100%	\$8,950	\$0
Buldoze/trim the ore stockpiles at Milne Inlet.	m3	6500	DSI	0.78	\$5,070	100%	\$5,070	\$0
Apply 1.0m borrow cover over regraded remnant ore stockpiles at Milr	m3	1000	SB4h	8.95	\$8,950	100%	\$8,950	\$0

D OBJECTIVE: COLLECT AND TREAT

- If visual observations or runoff water analyses (SEE POST CLOSURE COSTS) suggest otherwise a contingency plan (SEE POST CLOSURE COSTS) will be implemented to mix the weathered ore with neutralizing material.

E OBJECTIVE: DEVELOP WETLAND

- Not applicable.

F SPECIALIZED ITEMS

- Not applicable.

Subtotal	\$28,040	100.0%	\$28,040	\$0
	Total for Rock Pile	Percent Land	Total Land	Total Water

1 Building / Equip Name: _____ Bldg / Equip #: <u>1</u>								
ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: DISPOSE MOBILE EQUIPMENT (Decontaminate and ship to Milne Inlet)								
Demobilize mobile equipment to Milne Inlet - 100km by road	\$/km/60pc	6000	MHERI	2.81	\$16,860	100%	\$16,860	\$0
B OBJECTIVE: DISPOSE STATIONARY EQUIPMENT (Decontaminate and ship to Milne Inlet)								
Demobilize stationary equipment to Milne Inlet - 100km by road - drills, generators, sewage treatment plant, etc.	\$/km/15pc	1500	MHERI	2.81	\$4,215	100%	\$4,215	\$0
C OBJECTIVE: DISPOSE ORE CONCENTRATION EQUIPMENT (Decontaminate and ship to Milne Inlet)								
NUNA Logistics Crushing Plant - crusher, conveyors, radial stackers, etc	\$/km/11pc	1100	MHERI	2.81	\$3,091	100%	\$3,091	\$0
D OBJECTIVE: DISPOSE WATER TREATMENT EQUIPMENT (Decontaminate and ship to Milne Inlet)								
Remove tanks	\$/km/2 pcs	200	MHERI	2.81	\$562	100%	\$562	\$0
Remove plumbing	m	1000	PPSI	0.5	\$500	100%	\$500	\$0
E OBJECTIVE: DECONTAMINATE BUILDINGS & TANKS (and ship to Milne Inlet)								
Demolish maintenance garage and dispose in landfill.	person-days	4	#N/A	500	\$2,000	100%	\$2,000	\$0
Camp (Mary River Camp, Milne Inlet, Mid-way and temp. drill camps) Drain, fold, and containerize Mary River and Milne Inlet bulk fuel bladders and truck containers of tanks (3 containers) from Mary River to Milne Inlet	person-days	60	#N/A	500	\$30,000	100%	\$30,000	\$0
Remove geomembrane liner offsite	L.S.	1	#N/A	41,000	\$41,000	100%	\$41,000	\$0
Transport geomembrane liner to Milne Inlet	m3	1000	SB2h	5.97	\$5,970	100%	\$5,970	\$0
Decontaminate buried concrete sewage system tank in A-Lot	m3	1000	CSRI	38.5	\$38,500	100%	\$38,500	\$0
	person-days	4	#N/A	500	\$2,000	100%	\$2,000	\$0
F OBJECTIVE: MOTHBALL BUILDINGS								
• No buildings (mothball) will remain								
Airstrips will remain (inspect and repair any erosion)	m3	5000	DSI	0.78	\$3,900	100%	\$3,900	\$0
G OBJECTIVE: REMOVE BUILDINGS (to Milne Inlet)								
Mary River - seasonal camp	m2	5000	BRW1l	21.5	\$107,500	100%	\$107,500	\$0
Mary River - all weather camp - including treatment plant, airstrip light	m2	5000	BRW1l	21.5	\$107,500	100%	\$107,500	\$0
4 wooden buildings at Mary River (< 200 ft ² each)	m2	80	BRW2l	5.5	\$440	100%	\$440	\$0
NUNA Logistics Milne Inlet camp	m2	1000	BRW1l	21.5	\$21,500	100%	\$21,500	\$0
Mid-way camp	m2	100	BRW1l	21.5	\$2,150	100%	\$2,150	\$0
Temporary drill camps (helicopter support included in mobilization cos	m2	500	BRW1l	21.5	\$10,750	100%	\$10,750	\$0
Remove boneyard waste to landfill	m3	1000	SB1h	4.85	\$4,850	100%	\$4,850	\$0
Truck 100 containers to Milne Inlet - includes camp items, comm.								
Towers, tents, etc	\$/km/100 pcs	10000	MHERI	2.81	\$28,100	100%	\$28,100	\$0
H OBJECTIVE: BREAK BASEMENT SLABS								
• No concrete slabs are present. The camp structures are founded on wooden floor systems.								
I OBJECTIVE: REMOVE BURIED TANKS								
Demolish buried concrete sewage system tank in A-Lot	m3	500	RB1l	9.35	\$4,675	100%	\$4,675	\$0
Remove demolish buried concrete sewage system tank in A-Lot to lan	m3	500	SB1h	4.85	\$2,425	100%	\$2,425	\$0
J OBJECTIVE: LANDFILL FOR DEMOLITION WASTE								
Placement of waste materials into landfill	m3	1000	SB1h	4.85	\$4,850	100%	\$4,850	\$0
Apply cover over landfill	m3	1000	SB4h	8.95	\$8,950	100%	\$8,950	\$0
K OBJECTIVE: GRADE AND CONTOUR								
Recontour camp site areas as required (using dozer)	m3	10000	DSh	3.11	\$31,100	100%	\$31,100	\$0

1 Building / Equip Name: _____ Bldg / Equip #: 1

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
L OBJECTIVE: RECLAIM ROADS								
Remove 10 navigatable water crossings - 30 days x crew of 6	person-days	180	#N/A	500	\$90,000	0%	\$0	\$90,000
Excavate, load and haul to landfill	m3	1702	SB11	3.2	\$5,446	0%	\$0	\$5,446
Additional cost to haul sea containers, culverts, etc 60km to landfill	\$/load/km	4440	MHERI	2.81	\$12,476	0%	\$0	\$12,476
• There was an existing tote road and will remain at abandonment.								

K SPECIALIZED ITEMS

Subtotal	\$591,311	81.7%	\$483,388	\$107,923
	Total Buildings	Percent Land	Total Land	Total Water

1 **Chemicals and Soil Contamination: Camps and Operations 1**

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
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.								
A LABORATORY CHEMICALS								
. Miscellaneous	pallet	1	LCRh	2320	\$2,320	100%	\$2,320	\$0
B PCB, hauling								
. • No PCB's								
C FUEL								
. Any excess fuel at Mary River will be burned. Management will ensure excess fuel will be kept to a minimum.	litre	5000	OBh	0.55	\$2,750	100%	\$2,750	\$0
D WASTE OIL								
. Oils/lubricants - transported to Milne Inlet	litre	6000	ORI	0.35	\$2,100	100%	\$2,100	\$0
E PROCESS OR TREATMENT CHEMICALS								
. • None								
F EXPLOSIVES								
. Transport explosives magazines to Milne Inlet	\$/km/16 pcs	1600	MHERH	8.42	\$13,472	100%	\$13,472	\$0
G CONTAMINATED SOILS								
. Excavate contaminated materials	m3	1000	SB1h	4.85	\$4,850	100%	\$4,850	\$0
. Transport contaminated materials to Milne Inlet	m3	1000	CSRI	38.5	\$38,500	100%	\$38,500	\$0
. Backfill excavation	m3	1000	SB1h	4.85	\$4,850	100%	\$4,850	\$0
H Haz. Mat. testing & assessment								
. Technician and analyses	L.S.	1	#N/A	50000	\$50,000	100%	\$50,000	\$0
OTHER								
. Haz. Mat. waste disposal fee	L.S.	1	#N/A	50000	\$50,000	100%	\$50,000	\$0
Subtotal					\$168,842	100.0%	\$168,842	\$0
					Total	Percent	Total	Total
					Chemical	Land	Land	Water

1 **Water Management Project: Bulk Sample Project # 1**

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: STABILIZE EMBANKMENT								
• No embankment								
B OBJECTIVE: UPGRADE SPILLWAY								
• No spillway								
C OBJECTIVE: STABILIZE SEDIMENT CONTAINMENT PONDS								
• Regrade two sediment containment ponds with dozer	m3	1000	DSI	0.78	\$780	0%	\$0	\$780
D OBJECTIVE: BREACH EMBANKMENT								
• No embankment								
E OBJECTIVE: STABILIZE DITCHES								
• No ditches								
F OBJECTIVE: BREACH DITCHES								
• No ditches								
G OBJECTIVE: REMOVE PIPELINES								
• Remove pipes - Included in Activity E of Bldgs & Equip worksheet								
H OBJECTIVE: REMOVE STORAGE TANKS								
• Remove tanks & plumbing - Included in Activity D of Bldgs & Equip worksheet								
I OBJECTIVE: COLLECT DRAINAGE FOR TREATMENT								
• No ongoing treatment required								
J OBJECTIVE: TREAT DRAINAGE (see "ONGOING TREATMENT" for operating costs)								
• No treatment plant necessary								
Subtotal					\$780 Total Water	0.0% Percent Land	\$0 Total Land	\$780 Total Water

1		Mobilization Name:		Mob # 1					
ACTIVITY/MATERIAL		Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A MOBILIZE HEAVY EQUIPMENT									
Equipment to regional centre									
Dedicated sealift for materials from Milne Inlet to Montreal requiring									
off-site salvage or disposal.									
		L.S.	1	#N/A	1E+06	\$1,200,000		\$0	\$1,200,000
Equipment, regional centre to site									
• Sufficient equipment on site from bulk sample program for reclamation activities - NUNA/QC/BIM									
B MOBILIZE CAMP									
• Use existing camp for reclamation									
C MOBILIZE WORKERS									
MOB workers		person	80	MM>I	990	\$79,200	100%	\$79,200	\$0
D MOBILIZE MISC. SUPPLIES									
• Sufficient supplies remain from bulk sample program for reclamation activities									
Helicopter and Air Plane Support		month	4	#N/A	80000	\$320,000	90%	\$288,000	\$32,000
E MOBILIZE & HOUSE WORKERS person days									
Operate 20-person camp for 4 months		month	80	ACCMI	1320	\$105,600	100%	\$105,600	\$0
WINTER ROAD									
• No winter use									
F BONDING									
2.5 basis points of total bond amount		0.00025	1	#N/A	885.94	\$886	100%	\$886	\$0
G TAXES lump sum		L.S.	1	#N/A	20000	\$20,000	100%	\$20,000	\$0
H INSURANCE lump sum		L.S.	1	#N/A	100000	\$100,000	100%	\$100,000	\$0
Subtotal						\$1,825,686	32.5%	\$593,686	\$1,232,000
						Total Mob.	Percent Land	Total Land	Total Water

1		Monitoring & Maintenance		Mon / Mtce #		1			
ACTIVITY/MATERIAL		Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: INSPECTIONS									
. Site supervision during final abandonment		\$/month	4	Vlh	30000	\$120,000	80%	\$96,000	\$24,000
. Water sampling		year	1	WSh	9000	\$9,000	0%	\$0	\$9,000
. Additional water sampling costs per year		year	1	WSh	9000	\$9,000	0%	\$0	\$9,000
. Reporting		report	1	RPT	11000	\$11,000	80%	\$8,800	\$2,200
B OBJECTIVE: MAINTENANCE									
. No items will remain that need to be maintained post-closure. A contingency amount has been added (SEE POST CLOSURE COSTS) to mitigate any observed ARD/ML during post-closure site visits.									
Subtotal						\$149,000	70.3%	\$104,800	\$44,200
						Total Pits	Percent Land	Total Land	Total Water

1 Post-Closure Site Maintenance

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A WATER TREATMENT								
<ul style="list-style-type: none"> Not Applicable. On-going water treatment will not occur. Shallow pit areas will remain free draining. If visual observation or runoff water analyses suggest acid generation or metal leaching during site visits a contingency plan will be implemented (SEE BELOW). 								
B Cover Maintenance								
<ul style="list-style-type: none"> Cover material on the site is not required except for the landfill. A cover (0.6m) will be placed on the landfill with gentle slopes. Ongoing problems with erosion and integrity is not anticipated. However, the cover will be inspected every year for 5 years post closure (SEE BELOW). 								
C Spillway Maintenance								
<ul style="list-style-type: none"> Not applicable. No spillways to maintain. 								
D Other								
Annual site visits (4 years post closure)	visit	4	Vlh	7100	\$28,400	80%	\$22,720	\$5,680
Annual reporting (4 years post closure)	report	4	RPTb	11000	\$44,000	80%	\$35,200	\$8,800
Annual water sampling (20 samples; 4 years post closure)	year	1	WSh	9000	\$9,000	0%	\$0	\$9,000
Additional water sampling costs per year	year	1	WSh	9000	\$9,000	0%	\$0	\$9,000
Contingency: Remediation of ARD/ML and stockpile includes quarry, transport and place buffering material (local overburden). Correcting any unstable areas of the shallow pit may include additional blasting, excavation or backfilling using weathered ore.	m3	30000	SB2h	5.97	\$179,100	100%	\$179,100	\$0
Subtotal, Annual post-closure costs					\$90,400		\$57,920	\$32,480
Discount rate for calculation of net present value of post-closure cost, %				3.00%			\$0	
Number of years of post-closure activity				5 years			\$0	
Present Value of payment stream					\$593,106	74.9%	\$444,357	\$148,749
					Total Post closure	Percent Land	Total Land	Total Water

ANNUAL VOLUME OF WATER (m3)

Reagent	kg reagent/m3 water	cost in \$/kg, FOB site	Annual reagent cost
H2O2	0.1 kg/m3	1.5	\$0
lime	kg/m3	0.45	\$0
ferric sulphate	kg/m3		\$0
ferrous sulphate	kg/m3		\$0
flocculents	kg/m3		\$0
		TOTAL	\$0

power, kW-hr	0 rate, \$/kW-h	\$0
misc. supplies, hoses, tools		\$0
sampling equip.		\$0
equip. maintenance and parts		\$0
water analysis		\$0
reporting		\$0
truck rental		\$0
annual mileage		\$0
road maintenance & snow plowing		\$0
electrician/mechanic for treatment plant	power supply	\$0
	Annual cost	\$0
labor hourly rate	35	
	men per day for water treatment work	1
	on site, days per year	0
	spring/fall maintenance, extra work	0
	hours worked per year	0
	annual labor cost	\$0
	Total, labour and supplies	\$0
TOTAL ANNUAL COSTS, reagents plus labour and supplies		\$0
Average treatment cost, \$/m ³		\$0.00

Water analyses	
samples per month	10
analysis cost/sample	100
shipping	200
Total Water Sampling	1200

Site Access	
annual site access cost	
road	\$0
air	\$0
winter road	\$0